



# **P R O S P E R**

To prosper is to succeed, to flourish and to thrive. It is an idea full of energy and vitality, and it captures the optimistic spirit that lives at the heart of the community and the region.

## **1041 APPLICATION SUBMITTAL**



October 20, 2014

# **PROSPER**

## **Arapahoe County 1041 Application**

*Prepared for:*

**Arapahoe County**  
Public Works & Development  
6924 S Lima Street  
Centennial, CO 80112

*Prepared by:*

**VOGEL & ASSOCIATES**  
475 W. 12<sup>th</sup> Avenue, Suite E  
Denver, CO 80204

**October 20, 2014**

# 1041 APPLICATION SUBMITTAL

## TABLE OF CONTENTS

### **Approval Criteria**

- A. General Criteria and Criteria for New Communities
- B. Approval Criteria for New Communities

### **1. The Application**

- a. Application Fee Schedule.
- b. 1041 Permit Review Fee
- c. Review Consultant Fees

### **2. The Applicant**

- a. Applicant Contact Information
- b. Design Team Contact Information
- c. Letter of Authorization
- d. Owner's Financial Ability
- e. Public Services Will Serve Letters

### **3. Prosper Submittal Requirements Applicable to New Communities**

- a. Intent and Justification
- b. The Prosper Legacy
- c. Vision and Directives
- d. Integrated Planning and Design Principles
- e. Location Map and Existing Conditions
- f. Compliance with County Comprehensive Plan
- g. Intergovernmental Agreements
- h. Compliance with County Land Development Codes & Design Guidelines
- i. Land Use Plan
- j. Phasing Plan
- k. Public Services
- l. Infrastructure & Utilities
- m. Regional Population
- n. Developers Financial Ability
- o. Architectural and Streetscape Character
- p. Open Space Plan
- q. Existing Conditions & Green Infrastructure Plan

### **4. Property Rights, Permits and other Approvals**

- a. Property Ownership, Land Use Approvals, & Permits
- b. Federal, State, and Local Authorities Correspondences
- c. Description of Water and Water Supply Plan

### **5. Regional Water Quality Management Plan**

- a. Storm Water & Water Quality
- b. Domestic Water

# 1041 APPLICATION SUBMITTAL

## TABLE OF CONTENTS

### **6. Financial Feasibility Plan**

- a. Costs, Review & Phases
- b. Metro Districts Structure
- c. District Coordination & Public Improvement Financing
- d. Details of any contract or agreement for revenues or services in connection with the project.
- e. Description of the persons or entity(ies) who will pay for or use the project and/or services produced by the development and those who will benefit from any and all revenues generated by it.
- f. Cost of all mitigation measures proposed for the project.
- g. Detailed description as to how the project will be financed to show that the applicant has the ability to finance the project.

### **7. Land Use**

- a. Description of existing land uses within and adjacent to the Project Impact Area.
- b. Description of provisions from local land use plans that are applicable to the project and an assessment of whether the Project will comply with those provisions.
- c. Description of impacts and net effect that the project would have on land use patterns.

### **8. Local Government Services**

- a. Description of Existing Capacity of and Demand for Local Government Services to Accommodate the Project.  
See Section 3.K
- b. Description of Impacts and Net Effect of the Project on the Demand for Local Government Services and the Capability of Local Governments to Provide Services.  
See Section 3.K

### **9. Financial Impact on Arapahoe County**

### **10. Local Economy – See Section 6**

- a. Description of the local economy including but not limited to revenues generated by the different economic sectors, and the value or productivity of different lands.  
See Section 6
- b. Description of impacts and net effect of the project on the local economy and opportunities for economic diversification, including the number and types of jobs created.  
See Section 6

### **11. Recreational Opportunities**

- a. Present and Potential Recreational Uses
- b. Impacts and Revenues of Proposed Recreational Opportunities
- c. Proposed Recreational Uses

### **12. Environmental Impact Analysis**

- a. Air Quality
  1. Background
  2. Existing Environment
  3. Impacts
  4. References

# 1041 APPLICATION SUBMITTAL

## TABLE OF CONTENTS

- b. Visual Quality
  - 1. See Section 3.4 of Section 12.a
- c. Surface Water Quality
  - 1. Introduction
  - 2. Environmental Setting
  - 3. Methods
  - 4. Surface Water Features
  - 5. Proposed Development
  - 6. Impacts to Surface Water Quality
  - 7. Photos
  - 8. References
- d. Groundwater Quality and Quantity
- e. Wetlands and Riparian Areas
- f. Terrestrial & Aquatic Animals & Habitats
  - 1. Introduction
  - 2. Environmental Setting
  - 3. Methods
  - 4. Wildlife Habitats & Species Presence
  - 5. Proposed Development
  - 6. Impacts & Mitigation
  - 7. Conclusion
  - 8. Literature Cited
- g. Terrestrial & Aquatic Plant Life
  - 1. Introduction
  - 2. Environmental Setting
  - 3. Methods
  - 4. Vegetation Communities
  - 5. Ephemeral Streams
  - 6. Federal Threatened and Endangered Plants
  - 7. Rare Plants
  - 8. Proposed Project
  - 9. Impact to Vegetation Resources
  - 10. Photos
  - 11. Reference
- h. Soils, Geologic conditions and Natural Hazards
  - 1. Introduction
  - 2. Project Description
  - 3. Site Description
  - 4. Geologic and Other Natural hazards
  - 5. Mineral Resources
  - 6. Effects on Soils, Streambed Meander Limits and Aquifer Recharge Area
  - 7. Recommendation
  - 8. Conclusions
  - 9. Figures
  - 10. References

### 13. Nuisances

- a. Descriptions and maps showing the range of noise, glare, dust, fumes, vibration, and odor levels caused by the project, along with an indication of their significance.

# 1041 APPLICATION SUBMITTAL

## TABLE OF CONTENTS

### **14. Areas of Cultural Importance**

- a. Map and description of all sites of paleontological, historic or archaeological interest.
- b. Description of the impacts and net effect of the project on sites of paleontological, historic or archaeological interest.

### **15. Hazardous Materials**

- a. Description of all hazardous, toxic, and explosive substances to be used, stored, transported, disturbed or produced in connection with the project, including the type and amount of such substances, their location, and the practices and procedures to be implemented to avoid accidental release and exposure, and any foreseeable impacts to the environment of such substances.
- b. Location of storage areas designated for equipment, fuel, lubricants, chemical and waste storage with an explanation of spill containment measures.

### **16. Balance of Benefits and Losses**

- a. Description of foreseeable benefits of natural, agricultural, recreational, range or industrial resources within the County and opportunities to develop those resources in the future.
- b. Description of foreseeable losses of natural, agricultural, recreational, range or industrial resources within the County and loss of opportunities to develop those resources in the future.

### **17. Monitoring and Mitigation Plan**

- a. Description of all mitigation for the Project.
- b. Description of methodology used to measure impacts of the project and effectiveness of proposed mitigation measures.
- c. Description, location and intervals of proposed monitoring to ensure that mitigation will be effective.

### **18. Traffic Report**

Under Separate Cover at the Request of Arapahoe County Engineer

### **19. Benefit/Cost Analysis**

### **20. Engineering Studies**

Under Separate Cover at the Request of Arapahoe County Engineering Services Division

### **21. Outside Agencies Referrals and Responses**

## Approval Criteria

- General Criteria and Criteria for New Communities
- Approval Criteria for New Communities



**APPROVAL CRITERIA**

**PROSPER**

A new community with an optimistic spirit  
where one can flourish, thrive and succeed

# Approval Criteria

## A. General Criteria and Criteria for New Communities

### 1. Documentation that prior to site disturbance associated with the proposed project, the applicant can and will obtain all necessary property rights, permits and approvals.

Per the Title Policy submitted with this application, Prosper Farms Investments, LLC currently owns the property that is included in this 1041 application. Any additional property rights that will be required shall be obtained prior to site disturbance.

Applicable Federal, State and Local permits shall be obtained prior to site disturbance. The following permits shall be obtained prior to site disturbance.

1. Colorado Department of Transportation – 1601 process/permit
2. Arapahoe County Public Works – grading, streets, drainage, GESC
3. UDFCD/FEMA for anticipated CLOMR/LOMR
4. State of Colorado – Storm water Management Plan- Dam Safety
5. State Health – Sewage Treatment (Waste Water Treatment Utility Plan)
6. Tri-County Health
7. State Water Resources-Water Supply – Water Treatment Plan Permits and C & E Process with Arapahoe County
8. Army Corps of Engineers
9. State Engineering Department
10. SEMSWA (Prosper is to be excluded from SEMSWA)
11. District (s) Service Plans

Required Arapahoe County planning and public works approvals will be obtained prior to site disturbance. These approvals shall include the following for the respective phases of development.

1. Arapahoe County 1041 Permit
2. Preliminary Development Plan
3. Final Development Plan
4. Preliminary Plat
5. Final Plat

### 2. The proposed project considers the relevant provisions of the regional water quality plans.

Prosper is located within the regional Coyote Run and Upper Box Elder Creek Outfall System plan that has been prepared by the Urban Drainage and Flood Control District. Portions of Section 14 are in First Creek drainage basin and portions of Section 2 are located in the Prairie Dog Draw drainage basin. A comprehensive master drainage plan has been prepared for Prosper that incorporates the water quality and drainage standards and specifications established by the Arapahoe County Public Works and Development Department and the Urban Drainage and Flood Control District. This master plan is also in general compliance with the standards and objectives outlined in the Coyote Run and Upper Box Elder Creek Outfall System plan. The master plan includes water quality and detention ponds that will be located internally on the Prosper property as required to achieve the required storage capacity.

The master water quality and drainage plan will be implemented and maintained in compliance with standards and practices established by Arapahoe County and Urban Drainage and Flood Control District.

**3. The applicant has the necessary expertise and financial capability to develop and operate the proposed project consistent with all requirements and conditions.**

Prosper Farms Investments, LLC is the primary owner of the 5,130 acre parcel that is to be transformed into the mixed use community of Prosper. The owner of Prosper Farms Investments, LLC has over 40 years of experience in the acquisition and development of raw land, including the design, construction, financing and operation of more than 100 real estate projects which has resulted in several multi-million dollar investments. The Prosper property was purchased with cash with assumed debt relating to only one parcel.

This extensive experience and real estate portfolio includes the acquisition, construction, and operation of commercial office, industrial, distribution and retail projects throughout the United States. Each project has required a unique approach to ensure that aesthetic, economic and environmental considerations are appropriately addressed and project goals are achieved. The extensive experience of the owners and management team of Prosper Farms Investments, LLC also includes constructing and operating sustainable and smart energy projects. This experience in conjunction with the commitment to sustainability and integrated planning remains a primary directive for each project including Prosper.

Prosper is proposed to include eight metropolitan districts. Through one or more Intergovernmental Agreements the Districts will coordinate the planning; design; acquisition; financing; construction; operations and maintenance of road and transportation improvements; water; sanitary sewer; storm drainage improvements; park and recreation improvements; and mosquito control services. Streets constructed to Arapahoe County standards shall be maintained by the County.

While the Prosper Metropolitan Districts will finance the majority of infrastructure improvements, the initial development phase and associated infrastructure may require investment by Prosper. It is estimated that approximately twelve million dollars may be required to implement the first phase of improvements. Enclosed in Section 3 of this application is a letter from US Bank outlining Prosper Farms Investments, LLC ability to finance the twelve million dollars.

**4. The proposed project is technically and financially feasible.**

A comprehensive technical review and analysis has been prepared for Prosper and is enclosed in this 1041 permit application. The analysis has been conducted for the 5,130 acres. These technical studies include geology, vegetation, wildlife, drainage, water quality, water supply, sanitation and transportation. An environmental analysis has been conducted regarding visual quality, wildlife, air quality, and groundwater quality.

The Prosper master plan and associated engineering documentation has been designed to reflect and address the recommendations associated with these technical reports. These technical recommendations reinforce the feasibility of the proposed Prosper project.

Prosper Farms Investments, LLC has extensive experience and financial resources to implement and maintain the project. In addition, Prosper is proposed to include eight metropolitan districts. Through one or more Intergovernmental Agreements the Districts will coordinate the planning; design; acquisition; financing; construction; operations and maintenance of road and transportation improvements; water; sanitary sewer; storm drainage improvements; park and recreation improvements; and mosquito control services.

A fiscal impact report has been prepared for Prosper that includes a financial analysis and summary outlining the cost and benefit to the residents of Arapahoe County. As outlined in the enclosed report, Prosper will provide a positive financial impact with regards to the local economy, government agencies and the County General Fund. Please see the enclosed Fiscal Impact Report (Section 6) which outlines the financial impacts and implications.

**5. The proposed project is not subject to significant risk from natural hazards.**

The Prosper property is located within the Coyote Run and Upper Box Elder Water Outfall system which also includes a 100- year FEMA floodplain. Land uses and development areas within the master plan have been located and configured outside the drainage corridors and 100-year FEMA floodplain.

The soil along the 11,000 linear feet of Coyote Run Creek has been mapped in the Arapahoe County Soil Survey as terrace escarpments. Erosion and particularly water erosion can occur. Soil and drainage basin stabilization techniques and practices will be required to minimize erosion and sloughing. The Prosper project will have a comprehensive storm drainage and water quality system that will be designed to reduce erosion.

**6. The proposed project is in general conformity with the applicable comprehensive plan.**

Prosper is located within the western segment of the I-70 Planning Reserve Tier One area that is identified on the Comprehensive Plan update. The Comprehensive Land Use Plan Update illustrates the desired concentration of future urban development in this Planning Reserve classification. Planning Reserve Areas are proposed in the Comprehensive Plan to contain a greater mix of uses and higher densities than what is typically developed today, and will provide employment opportunities near the places where citizens reside.

Prosper is in keeping with the Vision and Guiding Principles outlined in the Arapahoe County Comprehensive Plan (Section II Vision and Guiding Principles page 19-24). The Prosper master plan is also consistent with the Arapahoe County Comprehensive land use plan and advances the plan's vision, goals, policies and strategies.

As described in the Comprehensive Plan, "The Vision for Arapahoe County describes the County's values and aspirations in terms of what kind of place the County will be over the next 20 years." Outlined below are elements outlined in the Comprehensive Plan that define the Vision for Arapahoe County that have also been incorporated into Prosper.

**“Maintains a balance between growth and the natural environment”** *(Section II, Page 19)*

**“Conserve natural areas and environmental quality”** *(Section II, Page 19)*

Prosper is master planned to preserve natural drainages including the Coyote Run and Box Elder Creek corridor. These drainage corridors are to remain as natural open space and recreation areas.

Large contiguous open space areas have been preserved along the perimeter of Prosper. These open space areas equate to approximately 762 acres or 15% of the total acreage.

**“Maintain its rural heritage and character”** *(Section II, Page 19)*

**“Protect is cultural and historic community treasures”** *(Section II, Page 19)*

The Prosper property is currently undeveloped and contains no historic structures. Prosper has historically been utilized for dry-land farming. It is the intent is to create a community that will include elements that are reminiscent of small towns or communities that are located within eastern Colorado.

These towns or communities often include a main street that is comprised of retail, civic and community services. A town park or square is located off of the main street and in some instances may include civic uses such as a library, museum or amphitheater. Grain elevators are sometimes located in the core of the Town near the main street.

The Prosper land use plan locates more intense land uses and densities at the core adjacent to Interstate 70 and Watkins Road, East 6<sup>th</sup> Avenue and Watkins Road; and Alameda and Watkins Road.

Medium and high density residential land uses are located in the center of Prosper. Low density residential densities are proposed along the perimeter adjacent to large contiguous open space and agricultural areas.

Similar to other small communities in eastern Colorado, Prosper is programmed around community focal points such schools and parks. The large contiguous open space located along the perimeter is to be utilized for agriculture, recreation and prairie preservation. While a variety of recreation and agricultural related land uses are permitted in the perimeter open space agricultural zone district, a minimum of 80% of the land area shall remain as open space.

**“Provides diversified housing opportunities and safe, attractive neighborhoods.”**

*(Section II, Page 19)*

Prosper will be comprised of several neighborhoods, each encompassing one or several planning areas. Each neighborhood is encouraged to be designed to include a diversity of housing types and densities. This diversity of housing types will allow residents to remain in their neighborhoods and social centers as they evolve through their respective life cycle.

**“Meets transportation needs of residents and visitors”** *(Section II, Page 19)*

Prosper is master planned to include a comprehensive transportation system that will be comprised of a series of streets that will be interconnected. The local street network in the proposed planning areas is to be configured as a modified grid or as a system of interconnected streets. This transportation system will disperse traffic and reinforce community connectivity.

In keeping with the provisions outlined in the Arapahoe County 2035 Transportation Plan, Prosper will also provide regional north/south and east west connections. Watkins Road will be improved to serve as a primary north/south connection for the region. Improved East 6<sup>th</sup> Avenue will serve as a primary east/west connection.

**“Balances the cost of providing services and facilities with revenues received from development”** *(Section II, Page 19)*

Prosper will serve as a commerce and employment center which will result in significant tax revenue for Arapahoe County. The Prosper metropolitan districts will generate revenues as required supporting specific services for the community.

A fiscal impact report (Section 6) has been prepared for Prosper that includes a financial analysis and summary outlining the cost and benefit to the residents of Arapahoe County. As outlined in the enclosed report, Prosper will provide a positive financial impact with regards to the local economy, government agencies and the County General Fund.

**Arapahoe County Comprehensive Plan Principles** *(Section II, Page 20)*

**“Appropriate Land Use Patterns”** *(Section II, Page 20)*

In keeping with the planning principles of Arapahoe County, Prosper is located along the Interstate 70 (I-70) corridor adjacent to the existing Watkins community. Prosper is located within the I-70 Tier One Planning Reserve area that contemplates urban growth in the corridor. Market feasibility studies prepared by the County estimates that urban growth will initially occur in the western portion of the I-70 corridor in the area defined as Planning Reserve Tier One.

**“Adequate Public Facilities and Services”** *(Section II, Page 20)*

Public and community facilities for Prosper will include water, wastewater, fire protection, law enforcement protection services, parks and other utilities.

A comprehensive water and waste water plan has been prepared for Prosper (see Section 3 regional water and wastewater plan). This plan includes utilizing a combination of ground water, renewable surface water and recycled water.

Prosper is located in the Bennett Fire Protection District, Arapahoe County Law Enforcement Authority, Arapahoe Library District, Bennett and Aurora School Districts. Community Metropolitan Districts will also be utilized to finance, operate and maintain the infrastructure and open space within Prosper.

A comprehensive parks and open space system has been planned for Prosper. This plan includes a community park and approximately eight neighborhood parks. These parks will be connected by a central open space and trail system.

Prosper is proposed to include one (1) high school and five (5) kindergarten through eighth grade school sites. These school sites are proposed as shared school park sites that encourage the efficient use of facilities.

**“Safe, Functional and Attractive Neighborhoods”** *(Section II, Page 20)*

Prosper is comprised of several planning areas that upon development will define neighborhoods. A neighborhood may be comprised of one planning area or multiple planning areas.

The planning areas are to be configured within the context of a modified road grid and central open space system. This master plan configuration reinforces community connectivity that provides an interconnected system of pedestrian friendly streets and community trails.

Each neighborhood includes a community focal point such as a neighborhood retail center, park and/or school site. These focal points are strategically located to provide direct and convenient access to residents.

A diversity of housing types for each neighborhood is proposed. This diversity of housing types accommodates a multi-generational and diverse income population.

**“High Quality Employment”** *(Section II, Page 22)*

Prosper is designed as a regional commerce and employment center. The strategic location of Prosper to Denver International Airport, Front Range Airport and the I-70 corridor provides a unique opportunity to establish an economic generator for the corridor and the eastern Arapahoe County region.

Land uses are incorporated into the master plan that provide for regional, community and neighborhood commercial retail uses. Areas designated for mixed use and employment will accommodate a variety of office, corporate campus, research and development uses. The employment center is located adjacent to I-70 providing maximum visibility and convenient access.

**“Transportation Choices and Mobility”** *(Section II, Page 22)*

A comprehensive transportation plan has been prepared for Prosper that is consistent with the Arapahoe County 2035 Transportation Plan. Consistent with the Arapahoe County 2035 Transportation Plan, Prosper will provide regional north/south and east/west connections. Watkins Road will be improved to serve as a primary north/south connection for the region and improved East 6<sup>th</sup> Avenue will serve as a primary east/west connection.

The master plan has also been configured to reinforce multi-modal transportation alternatives. Neighborhoods have been located within a quarter mile of community focal points such as schools and neighborhood centers. This quarter mile proximity will encourage walking, bicycling and the use of mass transit when it becomes available.

Employment centers, mixed use areas and neighborhoods have also been located along the central open space and trail system. This comprehensive trail system will provide alternatives for residents to commute to work and school.

The trail system is also designed to serve as a regional trail connection for Arapahoe and Adams County. Box Elder Creek and Coyote Run drainage corridors are designed as regional trail linkages.

**“Resource Conservation and Environmental Quality”** *(Section II, Page 22)*

Prosper is configured utilizing a master plan that is based on preserving natural drainage corridors and large contiguous areas of open space. These preserved open space areas will continue to be utilized for agriculture, recreation, and open space. The Box Elder Creek and Coyote Run corridors will be preserved for natural drainage and wildlife habitat.

Prosper will also be designed and implemented as a “Smart Energy” and water wise community. Design and construction principles will be incorporated to ensure that site elements, building and landscape components achieve water conservation, air quality and health standards.

**“Maintain Rural Character”** *(Section II, Page 24)*

Prosper is master planned with a distinctive vision that will reinforce a small town character and provide enduring value for the region. Maintaining the character includes preserving large contiguous areas of open space and incorporating a set of design principles that will reinforce a small town community and ethic.

Large contiguous open space areas are located along the perimeter of the community providing a predominantly undeveloped edge between Prosper and the adjacent properties. This extensive open space buffer will serve as a transition between Prosper and the adjacent rural communities and farms. A minimum of 80% of the buffer shall remain as open space.

Other large contiguous open space areas include the Coyote Run and the Box Elder Creek corridor. These drainage corridors along with the associated tributaries will be preserved as open space.

**“Balanced Expenditures and Revenues”** *(Section II, Page 22)*

A comprehensive fiscal impact report has been prepared for Prosper that outlines and evaluates the impacts to the local economy and community services. The employment, tax revenue and development fees generated by Prosper will result in a positive and balanced approach with respect to expenditures and revenues.

Prosper will also include eight metropolitan districts. These districts will be utilized to finance, maintain and operate required infrastructure projects related to water, sewer, roads and storm drainage. Parks and open space improvements will also be financed and maintained utilizing the metropolitan districts.

**7. The proposed project will not have a significant adverse effect on the capability of local government to provide services or exceed the capacity of service delivery systems.**

In keeping with the community goals and principles, Prosper is master planned to ensure that adequate public services are provided including utilities, storm water management, schools, fire and police protection.

**School Districts**

Approximately 3,930 acres of the Prosper property is located within the Bennett School District. The southwest portion of the property that is approximately 1,200 acres is located within the Aurora School District.

Meetings and coordination with the respective school districts have been conducted regarding the project to discuss educational programming, existing and proposed capacity. Based on input from the districts, Prosper is master planned to include five (5) joint use school/park sites that can accommodate an elementary or kindergarten through eighth grade school. The master plan also includes one (1) high school site. A planning area has been incorporated into the plan that permits other private educational facilities such as a community college or a technological institute.

The final quantity, size and location of each school site will be determined at the time of Final Development Plan and Final Plat. Coordination of shared facilities such as parks will also be coordinated at the time of Final Development Plan and Final Plat.

**Fire Department**

Prosper is located within the Bennett Fire Protection District. Coordination meetings have been conducted with the Bennett Fire Protection District to review the service requirements for the proposed project. The District indicated that the existing facilities include the capacity to serve the initial development phases of the project. It has been discussed that an additional fire substation or site may be required to serve the ultimate build-out of Prosper. The size and location is to be determined at the time of Final Development Plan and Final Plat.

### **Police Department**

Prosper is located within the Arapahoe County Sheriff's Department jurisdiction. Additional sheriff substation sites or facilities that may be required will be determined at the time of Final Development Plan and Final Plat.

### **Infrastructure and Utilities**

Prosper is master planned to ensure that adequate infrastructure is provided including a central water and sanitary sewer system, including a regional storm drainage and water quality control plan.

In keeping with the goals and directives of Prosper, energy and natural resource conservation practices will be incorporated and applied at different scales and levels of the project. Smart energy and water wise principles will be incorporated within each respective component of community planning, architecture and landscape architecture.

The Prosper metropolitan districts will be utilized to design, finance and implement the required infrastructure improvements. Metropolitan districts have been prepared to ensure that the respective infrastructure is operated and maintained overtime.

### **Central Water System**

The Prosper engineering process has included an extensive analysis regarding the water requirements for Prosper. While Prosper includes significant ground water rights, the intent is to develop a central renewable water supply to serve the community.

A water demand analysis for Prosper has been prepared and is included (Section 4) in this application. The water demand analysis estimates that approximately 5,986 acre feet of water be required per year (af/yr) at full build out of the community.

A comprehensive water supply plan has been prepared for Prosper to ensure that a sustainable water system is implemented as required to minimize adverse impacts to existing Denver Basin ground water aquifers. This water supply plan utilizes a combination of Denver Basin aquifer ground water, renewable surface water; reclaimed water and lawn irrigation return flow.

Only 7 percent of the total estimated demand is to be satisfied with Denver Basin aquifer groundwater, with the other 75 percent of the estimated demand being supplied with renewable and recycled water. The Denver Basin Aquifer groundwater will be utilized to serve the initial phases of Prosper.

The groundwater shall be stored and treated on-site utilizing modern and efficient water treatment and storage facilities. Treatment and storage facilities will be phased as demand and supply is increased with the respective development of each subarea or phase. Renewable and recycled water may also be treated within Prosper utilizing modern facilities and technologically advanced practices.

### **Waste Water**

Prosper shall design and construct waste water facilities to ensure efficient water use, recycling and the utilization of reuse technology. The community will include modern wastewater treatment facilities with biological nutrient removal (BNR) and filtration for the production of reuse water. The treatment units will include a headworks (influent screening and grit removal), secondary aerobic biological treatment (nutrient reduction), ultraviolet disinfection for discharge to creek, aerobic sludge digestion, sludge handling facilities (thickening or cake production); effluent chemical addition, flocculation, clarification and filtration (Advanced Wastewater Treatment for reuse production), and chlorine disinfection for irrigation within the

development. All residential and commercial facilities will include low flow water fixtures to reduce demands.

### **Storm Water and Water Quality Drainage System**

In keeping with the goals and principles of Prosper, the Urban Drainage and Flood Control District and Arapahoe County Department of Public Works and development requirements, a regional water quality and storm water management plan has been prepared for the community. Given the magnitude of Prosper and the existing network of drainage basins, a comprehensive and regional storm water drainage system is to be implemented within the 5,130 acres. This storm water system utilizes the existing basins and drainage corridors to the extent practicable with the intent of maintaining the natural integrity of the land while reducing the expense and visual impacts associated with extensive terrain modifications and channelization.

**8. The proposed project will not create an undue financial burden on existing or future residents of the County.**

A fiscal impact report is included in this application (see section 6) that includes a financial analysis and summary outlining the cost and benefit to the residents of Arapahoe County. As outlined in the enclosed report, Prosper will provide a positive financial impact with regards to the local economy, government agencies and the County's General Fund. Please see the enclosed Fiscal Impact Report which outlines the financial impacts and implications.

**9. The proposed project will not significantly degrade any substantial sector of the local economy.**

Prosper is master planned as a large scale mixed use community that will serve as a regional employment and economic generator. Land uses include regional commercial/retail, community commercial/retail, neighborhood commercial/retail and a large regional employment center that will accommodate a variety of corporate office, research and development, light industrial and distribution uses. Other employment generating land uses include education and medical.

Arapahoe County projects that growth and economic development is to initially occur within the western area of the I-70 corridor. Prosper is positioned and master planned to accommodate large and small scale commercial and retail users. As outlined in the Prosper Fiscal Impact report, Prosper is estimated to generate approximately 24,573 jobs. Please see the enclosed Fiscal Impact Report that further describes in detail the economic impacts.

**10. The proposed project will not unduly degrade the quality or quantity of recreational opportunities and experience.**

A comprehensive park, trails and open space plan has been prepared for Prosper. The master plan includes an extensive regional and community trails network that connect to neighborhoods, mixed use centers, passive open space areas and a central park system including community and neighborhood parks. Prosper is planned to include approximately 30 miles of trails and 1.74 square miles of parks and open space.

Existing drainage corridors include the Box Elder Creek and Coyote Run corridor that have been preserved as passive open space and trail corridors as prescribed on the Arapahoe County Open

Space Plan. Regional trail connections are to be provided along the Box Elder Creek corridor as proposed in the County Open Space Plan.

A hierarchy of parks and open space areas will be incorporated into Prosper that will consist of a large community park that can accommodate a variety of recreational uses including sports fields, recreation sport courts, community gardens, group and family neighborhood picnic areas. Neighborhood parks and greens will be incorporated into residential areas and designed to serve as focal points that provide a variety of recreational activities.

Because Prosper is not presently within the boundaries of any entity that provides park and recreation improvements; facilities and services; the Prosper Park and Recreation Financing District (the "Park and Recreation Financing District") is being organized to provide funds to support the financing of park and recreation improvements and facilities constructed by the Prosper Coordinating District. The Park and Recreation Financing District will encompass the entirety of the property within the Development.

**11. The planning, design and operation of the proposed project will reflect principles of resource conservation, energy efficiency and recycling or reuse.**

A comprehensive set of planning and design principles have been established for Prosper to ensure that the project vision, goals and objectives are achieved. The following principles have been incorporated to ensure the conservation and efficient use of resources.

**Principle: Identify and sustain green infrastructure (i.e. drainage corridors).**

Prosper is comprised of a "green infrastructure" network which includes existing drainages and riparian areas. The Box Elder Creek and Coyote Run drainage corridors are located within Prosper.

This network will serve the community's need for parks and open space while providing a framework that will shape the community form for Prosper and Arapahoe County. Preserving this "Green Infrastructure" can reduce costs for storm water management, flood control and the components of built infrastructure.

The Prosper master plan preserves the Box Elder Creek, Coyote Run, Prairie Dog Draw, First Creek and associated drainage corridors. These drainage corridors are to remain predominantly as natural riparian landscapes that will serve as recreational areas that can provide regional and community connectivity. Preserving the natural integrity of the Box Elder Creek and Coyote Run drainage corridors will also enhance existing wildlife habitat.

**Principle: Protect environmental systems and conserve resources.**

Prosper includes a comprehensive water supply plan that conserves groundwater by utilizing renewable supplies, water reuse and conservation. While Prosper includes approximately 5,425 acre feet of decreed Denver Basin groundwater rights, the intent is to develop a central renewable and reuse water supply system to serve the community.

The Prosper water demand analysis estimates that approximately 5,986 acre feet of water per year will be required at full build out of the community. Only 27 percent of supply is to be provided with Denver Basin ground water. Renewable and fully reusable surface water will constitute 32 percent of the total supply. Reclaimed wastewater will be 73 percent of the total supply. Lawn irrigation return flow is 8 percent of the total supply.

Prosper has the unique opportunity to establish a comprehensive water conservation plan that utilizes the latest technologies and methods for efficient utilization and conservation of water. This comprehensive water conservation plan will be implemented in the initial and subsequent phases of the project. This approach will incorporate conservation strategies at a macro and micro level with minimal resident behavioral change required to meet conservation goals. The water conservation plan will be updated overtime as new technology and concepts become available. Specific conservation measures for each component of Prosper will be established prior to Final Development Plan final of such development.

The conservation plan will include and incorporate strategies for implementation, monitoring and evaluation of consumption as required to achieve water efficiency and conservation goals that are to be established for each project within Prosper.

### **Indoor Water Conservation**

Prosper shall include a water conservation plan that requires residential and non-residential structures to incorporate the latest technologies and methods for conserving water. This plan may include a dual metering or other technology monitoring system to determine indoor and outdoor water use.

Water efficient technologies will include but not be limited to instantaneous hot water systems and high efficiency dishwashers. Low flow water fixtures including toilets and shower heads will be required for each structure constructed within Prosper.

### **Outdoor Water Conservation**

Outdoor water use occurs primarily during the growing season for irrigation purposes and can account for approximately 50% or more of a detached single-family home's total water consumption. Consumption can vary depending on lot size, home size, seasonal climate and soil conditions. The landscape concept incorporated within each component of the master plan can also significantly impact the amount of water used for irrigation. Irrigation and storm water drainage design and configuration can also significantly minimize the amount of water utilized for outdoor use.

The Prosper master plan addresses outdoor water conservation on a macro level by preserving large contiguous areas of open space that are to remain as non-irrigated agricultural land, prairie or riparian corridors. Irrigated open space areas will be restricted to high intensity recreation and pedestrian zones.

Waterwise landscapes that utilize low water use plants and turf blends will be required for all residential and non-residential projects within Prosper. The use of turf will be reviewed and limited to areas that have a higher intensity of use with regards to recreation and pedestrian activity.

Water efficient irrigation systems that include but are not limited to drip and sub-surface drip will be required. Other strategies will include applying the appropriate soil amendments required to retain moisture. On-site drainage plans can also be designed to direct storm water to landscape beds providing supplemental moisture and reducing infrastructure requirements.

### **Waterwise Certification**

Prosper will implement a waterwise certification program for all residential and non-residential projects to minimize indoor and outdoor water use. High efficiency fixtures and appliances will be required for each project within Prosper. The high efficiency components will include model specifications for all residential toilets, washing machines, dishwashers, kitchen and bath faucets and showerheads. Commercial installation equipment will also have to include high efficiency standards as determined for each project.

Prosper will contract with respective builders and developers to ensure that the certification program is implemented as each phase of the project is constructed. Builders will be required to achieve minimum efficiency standards that are to be prescribed for specific uses and associated outdoor uses.

### **Monitoring and Evaluation**

The Prosper Water Conservation plan will include a monitoring and evaluation program. Technology and staff will be utilized to evaluate indoor and outdoor water consumption to ensure efficiency objectives are being achieved. This program will include making required recommendations and revisions to increase efficiency and conservation for specific applications.

### **Energy Resource Conservation**

Prosper is master planned as a walkable and multi-modal community. Each component of the master plan including land uses, streets, schools, parks and open space trail corridors have been strategically located to provide residents within Prosper alternatives to walk or bicycle to community destinations.

Land uses including mixed use centers, schools and parks have been designed to serve as community and neighborhood focal points. These facilities have been strategically located within a quarter to half mile of each neighborhood providing convenient automobile and pedestrian access to services and amenities.

Planning for energy efficiency will be built into Prosper to minimize or eliminate the use of non renewable energy sources. The inclusion of passive solar principles and natural cooling enhances energy efficiency. Utilizing high-efficiency heating, ventilating, air-conditioning, lighting, appliances, and plumbing systems reduces energy consumption, diminishes waste, and avoids pollution associated with the use of fossil fuels.

Each home within Prosper shall be designed to include "Energy Star" conservation components and practices. This will include utilizing "Energy Star" appliances and systems. Low flow water fixtures and appliances shall also be installed as part of the Prosper water conservation plan.

Non-residential buildings shall utilize green building systems and practices. These practices may include but not be limited to utilizing local materials, recycled materials and high efficiency mechanical systems.

### **Principle: Community Planning and Open Space Preservation.**

The Prosper master plan incorporates a planning approach that preserves the natural drainages that transcend through the property along with large contiguous open space areas located on the perimeter of Prosper. This approach to planning utilizes densities, building types and site planning configurations that protect and preserve large contiguous areas of open space, important natural features and scenic views. A planning framework is established that reduces sprawl, enhances a "Sense of Community" while reducing infrastructure costs. A planning framework that preserves that centralizes development area and preserves open space corridors provides safety/security and encourages pedestrian activity, the use of bicycle and

other alternative modes of transportation. Pedestrian-oriented streets, large contiguous open space areas, community gathering areas, parks and trails systems become the framework and focus of the community.

Incorporating this planning approach has contributed to the preservation of Box Elder Creek, Coyote Run and the associated tributaries that define a significant component of Prosper's "Green Infrastructure" network. This approach to clustering has also allowed the preservation of approximately 762 acres of open space areas along the perimeter of Prosper. This large contiguous area of perimeter open space will be utilized for agriculture, recreation and preservation.

## **12. The proposed project will not significantly degrade the environment.**

A comprehensive environmental impact analysis has been prepared for the Prosper property. This analysis addresses issues related to soils, geologic conditions, wildlife, air quality, noise and vegetation.

The Prosper property is comprised of predominantly sandy soils. These soils are well drained and will require that erosion mitigation procedures be implemented. The enclosed environmental impact analysis provides additional details regarding the soil composition.

As outlined in the enclosed environmental impact analysis, the predominant wildlife habitat area is located within the Box Elder Creek corridor. This area includes two hawk nests and an owl nest. A coyote den was also identified within the Box Elder Creek corridor. A hawk nest is located in Section 6 south of I-70.

The Box Elder Creek corridor and associated 100-year floodplain will remain as open space minimizing potential impacts. Any potential disturbance to these areas will comply with the mitigation procedures outlined in the analysis.

Three small potential wetland areas are identified within the Coyote Run basin. The intent is to preserve the Coyote Run corridor and potential wetland areas to the extent practicable. Mitigation procedures will be implemented should any disturbance be required.

A majority of the Prosper property has been utilized for dry land wheat farming. There is very limited vegetation with regard to trees. Existing trees are predominately located along Box Elder Creek with isolated massings located within the Coyote Run corridor.

Other considerations related to ground water, air quality and noise impacts are also evaluated within the report. The analysis concludes that Prosper will not adversely impact ground water since the intent is to utilize a renewable and reusable water supply system for 73% of the total water required.

With regards to ambient air quality, the Prosper property is located within the Front Range monitoring system with the closest monitor located five miles south of the site. The monitor has been collecting data for less than three years and does not show any violations with Ambient Air Quality Standards. Prosper shall comply with all Colorado Ambient Air Quality Standards.

Air quality impacts would result from airborne particulates (fugitive dust) arising from earthwork during site preparation and construction. Fugitive dust and emissions resulting from construction activities proposed for the project site would be intermittent, and would not be expected to exceed ambient air quality standards or substantially impact regional air quality attainment status or progress. Prosper will be subject to the standards of a Fugitive Dust Control Plan.

Colorado air pollution regulations also address stationary sources of air pollution. The only stationary source of air pollution proposed is the waste water treatment plant. Emissions from the waste water treatment plant shall comply with Colorado and air pollution permitting regulations. Colorado air pollution regulations in conjunction with Arapahoe County regulations, will adequately address any pollution conditions and controls regarding the waste water treatment plant.

Prosper is located outside of the Front Range Airport influence area. A portion of the property located west of Watkins Road is located within the Denver International Airport influence area. An aviation easement will be executed for the area located within the airport influence area.

Adverse noise impacts have also been reduced by locating non-residential land uses adjacent to Interstate 70. Commercial and employment related land uses have been located along Interstate 70 to maximize visibility and provide serve as a buffer to the residential land uses and planning areas to the south.

### **13. The proposed project will not cause a nuisance.**

Prosper is planned and designed to avoid or mitigate any potential nuisances. Considerations with regards to land use, transportation, environmental impacts, cultural and economic implications have been addressed as part of the planning and 1041 process.

#### **Land Use**

Land uses are proposed that will be compatible with adjacent uses and facilities. Non-residential land uses have been located along Interstate 70 and the Watkins Road interchange to maximize economic potential while also reducing potential noise impacts. Large contiguous areas of open space have been located around the perimeter of Prosper providing a buffer to adjacent agricultural and rural residential areas. Lower residential densities have been located along the perimeter open space areas providing an appropriate transition to adjacent land uses. Existing drainage corridors and flood plain boundaries are to be preserved in their existing state and modified as required for transportation and other infrastructure requirements. Modifications to the FEMA floodplain will be done in compliance with Federal, State and County requirements.

#### **Transportation**

A comprehensive transportation plan has been prepared for Prosper that is consistent with the Arapahoe County 2035 plan. This transportation plan includes major north/south (Watkins Road) and east/west (E. 6<sup>th</sup> Avenue) connections as proposed in the Arapahoe County 2035 Transportation Plan. The plan also includes phased improvements to the existing Watkins Road and Interstate 70 interchange. These major transportation components in conjunction with other improvements will ensure that Prosper operates at an acceptable level of service while also providing regional connections for eastern Arapahoe County.

Prosper is master planned to include a network of connected streets which will disperse traffic and encourage community connectivity. Walkable streets and a comprehensive trails system will also provide alternative transportation choices.

### **Environmental**

A comprehensive environmental analysis has been completed for Prosper. Prosper incorporates an "Avoidance" approach to ensure that natural drainage ways and riparian zones remain in their existing state with minimal disturbance. Land use planning areas have been planned to respect existing drainage corridors and floodplain boundaries.

A sustainable water supply plan has been prepared to minimize impacts to existing Denver Basin aquifers and adjacent residential wells. This sustainable water supply plan incorporates a reuse system and conservation practices.

Surface and storm water shall comply with all State, County and Urban Drainage & Flood Control District standards and practices. Prosper includes a master drainage plan that includes appropriate storm water, water quality and conveyance facilities. Applicable Best Management Practices will be incorporated into each phase of the project to reduce erosion or siltation within and adjacent to Prosper.

Prosper will comply with all Environmental Protection Agency, Colorado and Arapahoe County air pollution regulations and standards.

### **Cultural and Historical**

An archaeological and cultural survey for the Prosper property was conducted by the Colorado Historical Society. The property does not include any cultural resources that are eligible to be listed on the National Register of Historic Places.

The Colorado Historical Society search outlines eight sites and five surveys that have been conducted within and adjacent to the Prosper property. These sites are located in the northeast corner of Section 6 and the northwest corner of Section 5 within the Box Elder Creek corridor. This corridor is to be preserved with no proposed development with the exception of permitted recreational land uses.

### **Economic**

Prosper is master planned as a large scale mixed use community that will serve as a regional employment and economic generator. Land uses include regional commercial/retail, community commercial/retail, neighborhood commercial/retail and a large regional employment center that will accommodate a variety of corporate office, research and development, light industrial and distribution uses. Other employment generating land uses include education and medical.

Arapahoe County projects that growth and economic development is to initially occur within the western area of the I-70 corridor. Prosper is positioned and master planned to accommodate large and small scale commercial and retail users. Prosper is estimated to generate approximately 24,573 jobs.

**14. The proposed project will not significantly degrade areas of paleontological, historic, or archaeological importance.**

An archaeological and cultural survey for the Prosper property was conducted by the Colorado Historical Society. The property does not include any cultural resources that are eligible to be listed on the National Register of Historic Places.

The enclosed Colorado Historical Society search outlines eight sites and five surveys that have been conducted within and adjacent to the Prosper property. These sites are located in the northeast corner of Section 6 and the northwest corner of Section 5 within the Box Elder Creek corridor.

As outlined on the Colorado Historical Society search matrix (See Section 14), the sites are designated as "Field not Eligible" and are not eligible to be listed on the National Register of Historic Places. This designation or assessment does not require that avoidance or mitigation procedures be implemented.

**15. The proposed project will not result in unreasonable risk of releases of hazardous materials.**

The Prosper property currently does not contain any land uses or facilities that would result in the release of hazardous materials. Land uses are proposed for Prosper that may contain hazardous materials such as fuel stations, medical facilities and light manufacturing facilities. Solid or hazardous waste facilities or sites (excluding waste water treatment facilities) are not proposed within Prosper.

Proposed land uses within Prosper that may include hazardous materials shall comply with Federal and State handling, storage, disposal and transportation requirements. Waste and minimization standards and practices shall be utilized for all hazardous materials. Land uses or facilities that may contain hazardous waste material shall include spill prevention and response plans.

**16. The benefits accruing to the County and citizens from the proposed activity outweigh the losses of any resources within the County, or the losses of opportunities to develop such resources**

As outlined in (Section A-6), Prosper is consistent with the Arapahoe County Comprehensive Plan and will advance the vision and principles outlined in the plan. These principles encourage the creation of safe and attractive neighborhoods, compatible land use patterns and the creation of a diversity of housing types. It is encouraged that resource conservation and environmental quality considerations be incorporated within growth patterns. Employment generation for a diverse population is also a consideration as growth occurs in the County.

Prosper is master planned as a "balanced" mixed use community that will include a variety of commercial, employment, civic and residential land uses. Providing a mix of land uses that can serve as an employment center and provide housing for a multi-income and multi-generational population is the highest and best use for the property. Prosper is estimated to generate approximately 24,573 jobs.

Approximately, 1,601 acres are to be preserved for open space and continued agricultural purposes. This open space plan includes the conservation of the Box Elder Creek and Coyote

Run drainage and riparian corridors. These open space corridors can accommodate a variety of recreational uses and serve as regional trail linkages.

While Prosper is currently utilized for predominantly agricultural purposes, the proposed land use components, diversity of housing, recreational and employment opportunities will provide significant benefits to the County and citizens. The large contiguous open area located on the perimeter of Prosper will continue to be utilized for agriculture, recreation and conservation.

Prosper does not currently propose the extraction of aggregates. Should the extraction of aggregates be proposed, provisions and requirements outlined in Section 12-104 of the Arapahoe County Development Code shall apply. Extraction of aggregates shall also comply with the State of Colorado regulations outlined in 34-1-301 CRS.

With regards financial resources, a fiscal impact analysis has been prepared for Prosper illustrating a positive net effect for the County and its citizens.

**17. The proposed project is the best alternative available based on consideration of need, existing technology, cost, impact and these regulations.**

The expansive assemblage of contiguous land area that defines Prosper in conjunction with the strategic location provides a unique opportunity to address existing and projected demands and considerations that have been identified for the eastern metropolitan area and Interstate 70 corridor. The Denver Regional Council of Governments estimates an increase in the Arapahoe County population of 288,939 by year 2035. Portions of eastern Arapahoe County and specifically the Interstate 70 eastern corridor is projected as one of the next primary growth areas for the Denver metropolitan area. Prosper is located within the western Tier I Planning Reserve classification as designated in the Arapahoe County Comprehensive Plan.

Denver International Airport in conjunction with existing industry located within the eastern metropolitan area continues to provide a need for additional mixed use, commercial and residential uses. Prosper is strategically located to provide additional employment opportunities, housing, recreational facilities and services that may not be permitted in Adams County north of Interstate 70.

The eastern metropolitan area also includes an expansive aging population that will require a diversity of housing types and services including medical facilities which are currently limited in the Interstate 70 eastern corridor. Eastern Arapahoe County currently includes limited employment and housing choices for younger professionals and families.

Prosper is master planned to accommodate a variety of land uses that will achieve the needs outlined above. It is the intent for Prosper to serve as a mixed use and destination community as opposed to a "bedroom" community that requires residents to commute to Denver for employment and services.

Provisions within the master plan provide for a variety of commercial/retail land uses that includes regional and community commercial. Civic and educational land uses are also proposed to serve Prosper and portions of eastern Arapahoe County.

Prosper is master planned to include a diversity of housing types that can accommodate a diverse population. Providing these housing types provides for a sustainable community that has the ability to adapt to evolving economic conditions while also being able to accommodate a multi-income population.

Specific transportation and recreation needs identified by Arapahoe County can also be achieved with the implementation of the Prosper master plan. The Arapahoe County 2035 transportation plan identifies Watkins Road and East 6<sup>th</sup> Avenue as two primary transportation corridors. Each of these primary corridors has been incorporated into the master plan and will be constructed in accordance with County standards.

Arapahoe County has also identified the Box Elder Creek corridor as a regional open space and trail corridor. The Prosper master plan preserves the Box Elder and Coyote Run corridor for open space which will also serve as regional trail corridors.

A comprehensive financial plan has been prepared for Prosper to ensure that required community infrastructure can be financed, constructed and maintained without creating additional burden to existing County residents. This financial plan includes establishing eight metropolitan districts that will be utilized to finance and provide specific functions as outlined below.

The Prosper Metropolitan Districts Nos. 1-8 (the "Districts") are being organized to assure there will be governmental provision of essential services to the proposed development. Through one or more Intergovernmental Agreements the Districts will coordinate the planning; design; acquisition; financing; construction; operations and maintenance of road and transportation improvements; water; sanitary sewer; storm drainage improvements; park and recreation improvements; and mosquito control services. The Districts will finance these improvements through the issuance of Bonds and the imposition of taxes, fees and charges and other legally available revenues.

**18. The proposed project will not unduly degrade the quality or quantity of agricultural activities.**

Arapahoe County currently includes approximately 384,789 acres of agricultural land. The Prosper project is 5,130 acres and represents approximately 1.3 percent of the total agricultural land within Arapahoe County. The Prosper property is currently being utilized for agricultural uses and specifically dry land wheat farming. Some ranching has occurred within the Box Elder Creek and Coyote Run corridors.

Approximately 1,601 acres are to remain as open space which may be used for recreation, agriculture or conservation purposes. A minimum of 80% of the contiguous open space area that is located along the perimeter of the project will continue to be utilized for agricultural purposes. The perimeter contiguous open area equates to approximately 762 acres.

Maintaining an agricultural component within Prosper serves a functional need with regards to producing food and also reinforces the rural character of the community. The Prosper agricultural component will include dry land farming. Community and neighborhood gardens will be permitted and may also be integrated with the comprehensive parks program.

In summary, the Prosper project will not significantly diminish the agricultural activities in the County or region. Furthermore, the intent is to continue to utilize a portion of the property for continued agricultural use.

**19. The proposed project will not significantly interfere with the preservation of cultural resources; including historical structures and site; agricultural resources; the rural lifestyle and the opportunity for solitude in the natural environment.**

Prosper is master planned utilizing a concentric planning approach whereby more intense uses and densities have been located near the core of the community and along Interstate 70. Less intense uses and densities radiate from the core intersecting with the 762 acre contiguous open space area located along the perimeter of the community. This approach has been utilized to establish a compatible land use pattern and reinforce the rural character of Prosper and the adjacent neighborhoods and farms.

The Box Elder Creek and Coyote Run drainage corridors are to be preserved predominantly as natural riparian areas. These large corridors will continue to serve as recreation, agriculture, open space, trail linkages and wildlife habitat.

**20. The proposed project will not cause significant degradation of land use patterns in the area around the proposed project.**

Prosper has been master planned to include a mix of land uses as required to reinforce a "balanced" community comprised of commercial, residential, civic and recreational uses. Land uses have been strategically located to provide compatibility with adjacent land use patterns and facilities.

These uses have been located within the context of adjacent land uses that are comprised of existing Interstate 70 and the Watkins Road interchange that is located along the north boundary of Prosper.

There are approximately fourteen outparcels located along Watkins Road. These outparcels include rural residential land uses with some of the parcels remaining vacant. All but one of these outparcels are partially located in the 100-year floodplain. The Watkins Farm subdivision is located east of the property at the intersection of East 6<sup>th</sup> Avenue and Imboden Road.

Located east of the property and south of I-70 is the Thunder Ranches neighborhood. An existing church and cemetery are located along the north perimeter of the property west of the I-70 and Watkins Road interchange. The Sky Ranch property/PDP is located west of the Prosper property. A parcel located in the City of Aurora west of Section 2. Fritzler's subdivision is located east of Imboden Road and to the east of Section 18.

Located south of the property is Golden Gun Club. And a FAA facility that also accommodates the 1,500' setback.

Prosper includes a master plan that locates more intense land uses such as commercial and employment centers along I-70 and the Watkins Road interchange. Less intense and lower residential densities have been located adjacent to the large contiguous open space areas that are located between Prosper and the adjacent properties located to the east, west and south of Prosper. An open space buffer is provided between the commercial component and Thunder Ranches. Low density residential land uses and open space buffers have been located adjacent to the rural outparcels located within the interior of Prosper. A large contiguous open space buffer is proposed between Prosper and Sky Ranch.

**21. Compliance with Regulations and Fees.**

Prosper Farms Investments, LLC has paid and will continue to pay applicable development fees as determined by Arapahoe County and agreed upon by the applicant.

## **B. Additional Approval Criteria for New Communities**

### **1. The health, welfare and safety of the citizens of this County will be protected and served.**

The Prosper project is planned to include and implement the required infrastructure and services to ensure the health, welfare and safety of citizens within Arapahoe County are maintained.

#### **Education and School Districts**

Approximately 3,930 acres of the Prosper property is located within the Bennett School District. The southwest portion of the property that is approximately 1,200 acres is located within the Aurora School District.

Based on discussions with the Bennett District Superintendent, the school district currently has capacity in the elementary, middle and high school located in Bennett. Sufficient physical capacity exists with the existing facilities with the possibility that additional staff may have to be retained depending on the student load. The Bennett and Aurora School Districts have provided "Will-Serve" letters.

Prosper is master planned to include five (5) joint use school/park sites that can accommodate an elementary or kindergarten through eighth grade school. The master plan also includes one (1) high school. A planning area has been incorporated into the plan that permits other public and private educational facilities such as a community college or technological institute.

The final quantity, size and location of each school site will be determined at the time of Final Development Plan and Final Plat. Coordination of shared facilities such as parks will also be coordinated at the time of Final Development Plan and Final Plat.

#### **Fire Department**

Prosper is located within the Bennett Fire Protection District. A fire station is currently located on Highway 36 directly northeast of Prosper. Based on discussions with the Bennett Fire Protection District, the existing station currently has the capacity to serve the initial phases of Prosper. An additional fire station may be required as subsequent phases are implemented. Prosper will dedicate a fire station site when determined by the Fire Protection District. The site location and size will be determined at the time of Final Development Plan and Final Plat.

#### **Police Department**

Prosper is located within the Arapahoe County Sheriff's Department jurisdiction. Additional sheriff substation sites or facilities that may be required will be determined at the time of Final Development Plan and Final Plat.

#### **Infrastructure and Utilities**

Prosper is master planned to ensure that adequate infrastructure is provided including a central water and sanitary sewer system. A regional storm drainage and water control plan has also been developed for Prosper.

In keeping with the goals and directives of Prosper, energy and natural resource conservation practices will be incorporated and applied at different scales and levels of the project. Smart energy and water wise principles will be incorporated within each respective component of community planning, architecture and landscape architecture.

The Prosper metropolitan districts outlined in this application will be utilized to design, finance and implement the required infrastructure improvements. Metropolitan districts have been prepared to ensure that the respective infrastructure is operated and maintained over time.

**2. The natural and socio-economic environment of this County will be protected and enhanced.**

Prosper is master planned as a large scale mixed use community that will serve as a regional employment and economic generator. Land uses include regional commercial/retail, community commercial/retail, neighborhood commercial/retail and a large regional employment center that will accommodate a variety of corporate office, research and development, light industrial and distribution uses. Other employment generating land uses include education and medical.

Arapahoe County projects that growth and economic development is to initially occur within the western area of the I-70 corridor. Prosper is positioned and master planned to accommodate large and small scale commercial and retail users. Prosper is estimated to generate approximately 24,573 jobs.

Prosper is proposed to include a diversity of housing types that will accommodate a diverse income base. This diversity of housing will also accommodate an expansive aging population that is located within the eastern metropolitan area and Arapahoe County.

Large contiguous open space areas have been incorporated into Prosper including the existing natural primary drainage corridors. The Box Elder Creek and Coyote Run drainage corridors are to be preserved as open space and utilized for agriculture and recreation. Wildlife areas located in the Box Elder Creek corridor are to be preserved and/or mitigated per the provisions outlined in the environmental impact analysis.

**3. The applicant has presented and committed to a satisfactory program to mitigate and minimize adverse impacts.**

A comprehensive environmental impact analysis has been prepared for Prosper. The report identifies wildlife habitat in the Box Elder Creek corridor which is being preserved as part of the master plan. Any required disturbance to wildlife habitats or other environmentally sensitive areas will be mitigated as outlined in the report including complying with all Federal, State and County regulations.

The following is a summary of the wildlife impacts and mitigation.

**General Wildlife Use**

Due to current land use practices, impacts associated with the Prosper project to general wildlife species would be minor since little wildlife habitat exists. The proposed Prosper development plan (see Section 12, f, Figure 5) indicates that the area of the black-tailed prairie dog coterie in the northeastern corner of the main parcel is planned for open space; therefore no impacts are expected to occur within this area. However, the black-tailed prairie dog coterie located on the west side of the northeast parcel is planned for rural density residential development.

The Box Elder Creek riparian corridor, which provides the highest quality wildlife habitat on the project site, will be protected from development and is planned as an open space corridor.

### **Federally Listed Wildlife**

The project area does not offer suitable habitat for any of the six federally listed species with potential to occur in Arapahoe County. No designated critical habitat for any of the species identified in Table 1 (see Section 12, f, Table 1) exists within or near the project area. Therefore, this project will not directly impact any species protected or proposed for protection under the ESA. However, Table 1 includes four species that, although they do not occur within Arapahoe County, could be affected by the project if it results in water depletions to the South Platte River system. Mitigation for these potential future impacts could include participation in the South Platte River Water Related Activities Program (SPWRAP). This non-profit organization collects membership fees and directs funds to conservation and regulation of the South Platte River in Nebraska.

### **State Species of Concern**

Impacts to the six state species of concern potentially occurring within the project site are expected to be minor. If any ground disturbing activities or prairie dog control efforts are to be conducted between 15 March and 31 October, burrowing owl surveys must first be conducted, the survey area must extend for 150 feet beyond disturbance limits. If burrowing owls are found, the owls must be carefully monitored to determine which holes they are using. Once all the burrowing owl holes are located and marked, earth disturbing activities or control of prairie dog holes greater than 150 feet away can occur. Protection of burrowing owls, following these recommendations, would result in no impact to the species. Impacts to the spotted ground squirrel, olive-backed pocket mouse, plains pocket mouse, Ord's kangaroo rat, and the eastern spotted skunk are expected to be negligible and will not impact the species viability.

### **Migratory Birds**

The development plan indicates that the suspected Swainson's hawk nest would be impacted by Commercial/Retail Development. The red-tailed hawk nest is located approximately 100 feet off the project site adjacent to proposed open space. Within the project area, disturbance of the active red-tailed hawk nest and the suspected Swainson's hawk nest (when active) cannot occur. To protect against take of an active red-tailed or Swainson's hawk nest, buffer zones and seasonal restrictions exist. The buffer zone for Swainson's hawk nests is 1/4 mile with no human encroachment between 1 April and 15 July; the buffer zone for an active red-tailed hawk nest is 1/3 mile with no human encroachment between 15 February and 15 July (CDOW 2008). No trails, paths, etc. should be constructed within 1/3 mile of the red-tailed hawk nest to ensure that this nest will continue to be used by red-tails in the future and incidental take (and associated violation) can be avoided. If implemented, these buffers and seasonal restrictions should assure that the individuals will continue to nest and loss of the nest does not occur. Adhering to CPW seasonal restrictions and buffer zones would result in no impact to either species.

The Development plan indicates that the great horned owl nest is located at the interface between open space and low density development. Great horned owls are generally tolerant of human disturbance. However, no earth disturbing activities should occur within 200 feet of the active nest. The nest site should not be impacted or removed until after August 15 to ensure that the young are no longer using the nest.

### **Economically Important Wildlife Species**

The development plan indicates the areas mapped as mule deer winter range within the parcels II, III, & IV are planned as open space; the area mapped as winter range within the northeast parcel is predominantly open space except for the southwest corner, which is identified as low density development. This development would impact approximately 25 acres of mapped mule deer winter range within the northeast parcel. All of the mapped severe winter range is identified in the development plan as open space. The existing Watkins Farm development is within the

NDIS mapped mule deer winter range. This development has converted winter range habitat into predominantly unusable habitat that is likely avoided by mule deer. Some use of this area probably occurs at night or during crepuscular times of the day. Pets, especially dogs, further reduce the habitat quality of this area. The addition of low density development within the northeast parcel will not further reduce the usability of this area by mule deer. The proposed development will about the existing development and would occur within an area having a highly modified plant community dominated by undesirable non-native invasive species. No development associated with the Prosper project would occur within NDIS mapped mule deer severe winter range. Portions of the existing Watkins Farm are located within mapped mule deer severe winter range, decreasing the value of the habitat to mule deer.

### **Conclusion**

The majority of the project area is used for dry land farming and does not offer suitable habitat for most of the wildlife species which would exist within a native short—grass prairie ecosystem. Although there are small, remnant areas of native vegetation on the project site, these are disturbed plant communities with a high cover of introduced species; they are generally small in size; they are isolated from other contiguous areas of native habitats; and they are located in a highly modified landscape dominated by agricultural land uses and adjacent to neighborhoods and the I-70 ROW. All of these factors reduce the wildlife habitat value. The project area does not have habitat capable of supporting species listed, proposed for listing, or candidates for listing under the ESA. Sensitive species that occur within the project area would not be impacted by the proposed development if recommendations provided herein are followed. The proposed Prosper development will impact only a small portion of an already impacted area of mule deer winter range. These impacts are not expected to lead to a decrease in the local mule deer population.

The northwestern portion of Prosper within section 2 is located within the Denver International Airport Influence zone 55 LDN designation. Non-residential land uses including the open space and agricultural district, open space and F-Zones are located within the 55 LDN zone. Prosper is located outside of the Front Range Airport Influence area. As required, applicable noise mitigation measures will be incorporated for the respective structures located within the airport influence area.

A comprehensive transportation and storm drainage plan has been prepared for Prosper to ensure that adequate facilities are constructed and maintained. Facilities and maintenance practices are to be in compliance with the requirements of the Arapahoe County Development and Public Works Department.

The water supply plan proposed for Prosper will reduce potential adverse impacts to existing aquifers. This plan utilizes renewable and reuse water to achieve 75% of the total demand.

**4. The nature and location or expansion of the new community complies with the intent of all applicable provision of the Comprehensive Plan of this County, and other applicable regional, metropolitan, state, and national plans.**

Prosper is located within the western segment of the I-70 Planning Reserve Tier One area that is identified on the Comprehensive Plan update. The Comprehensive Land Use Plan illustrates the desired concentration of future urban development in this Planning Reserve classification. Planning Reserve Areas are proposed in the Comprehensive Plan to contain a greater mix of uses and higher densities than what is typically developed today, and will provide employment opportunities near the places where citizens reside.

The Comprehensive Plan goals, policies and strategies state that Planning Reserve Areas will have a compact land use pattern to maintain the small town, rural character of the communities and corridor. In keeping with these goals, policies and strategies, Prosper includes a master plan that includes a compact form resulting in the preservation of large contiguous open space areas.

The Denver Regional Council of Governments (DRCOG) Metro 2035 plan discusses Rural Town Centers. While Prosper is currently located outside of the current Urban Growth Boundary area and in the unincorporated area of Watkins, the Prosper master plan and proposed community is consistent with the Vision, Goals and Policies outlined for Rural Town Centers and Villages.

The vision discusses that rural towns and villages that are beyond the regions urban area will provide services, employment and entertainment for residents of the surrounding trade area, and tourists and travelers. Although rural villages will serve the rural area, the communities themselves will be compact, each with a town center, small lots and a street grid. They also will have the infrastructure to accommodate population growth.

The policies also discuss how new development should be compact, so the infrastructure necessary to serve the new development can be provided cost-effectively. Compact development also differentiates between developed and undeveloped areas, provides for pedestrian accessibility and maintains community identity.

Self sufficiency is also a policy with regards to ensuring that zoning designations will be provided that will ensure necessary services and that employment generators are provided for so the community can become more self sufficient.

The Metro Vision 2035 plan also identifies regional open space areas that should be preserved including the Box Elder Creek drainage corridor. Prosper shares this goal and preserve the Box Elder Creek and Coyote Run drainage corridors.

Prosper incorporates the similar policies and principles as the Metro Vision 2035 plan. While not currently included in the Urban Growth Boundary, Prosper is located adjacent to unincorporated Watkins and approximately 2.5 miles of Interstate 70 frontage. The property is accessed by an existing interchange and Watkins Road which serves as an existing primary north and south transportation route for the region. Arapahoe county will allocate or expand the Urban Growth Boundary as required to accommodate the Prosper project.

- 5. The nature and location or expansion of the new community will not create an expansion of the demand for government services, beyond the reasonable capacity of the community or region to provide such services, as determined by the Board, and the new community contains adequate mitigation of such demands; in particular, the new community design shall at a minimum, provide for transportation, waste disposal, schools, and other governmental services in a manner that will not overload facilities of existing communities in the impact area.**

Planning and infrastructure considerations and analysis related to transportation, schools, fire and police protection have been addressed as part of the Prosper 1041 application. Other planning and infrastructure items related to the environmental quality, storm drainage and providing an adequate water supply are also included in this 1041 permit application.

Prosper is programmed and master planned to provide adequate facilities and services. As outlined in this application, the school and fire district currently have capacity to accommodate

the initial phases that will be constructed at Prosper. It is the intent to dedicate additional school sites, a sheriff and fire substation sites as required to maintain the appropriate capacity for each respective district and agency. Provisions within the master plan are included to accommodate libraries and community recreation centers. Prosper is design to include a comprehensive open space and parks system to ensure appropriate recreation facilities are provided for community residents without burdening existing County facilities.

Preliminary transportation and storm water master plans have been prepared for Prosper to ensure that facilities are designed and implemented to accommodate the demand associated with each respective phase of the project as well as upstream flows. These facilities will be implemented in phases as required to maintain the appropriate level of service and capacity as specified in the respective master plans. Prosper shall utilize existing solid waste facilities located within Arapahoe County.

As outlined in this application, Prosper is proposed to include eight metropolitan districts. Through one or more Intergovernmental Agreements the Districts will coordinate the planning, design, acquisition, financing, construction and operations and maintenance of road and transportation improvements, water, sanitary sewer and storm drainage improvements, park and recreation improvements, and mosquito control services.

**6. Priority is given to the development of a total sustainable community, which provides for commercial and industrial activity, as well as residences, and for internal transportation and circulation patterns, as well as livability and walkable communities as defined by “Smart Growth”.**

A vision along with community directives has been established for Prosper. The vision and directives achieved and reinforced by utilizing integrated and “Smart Growth” planning principles and strategies.

**Prosper Vision and Directives**

1. Be productive
  - Prosper is envisioned as an active, multi-dimensional place: not a passive bedroom community.
  - Synergistic mix of uses: office, retail, light industry, R&D, agriculture, energy (petroleum and renewable), health services, residential, educational and recreational.
  - Entrepreneurial; incubator for new businesses.
  - Diverse population.
2. Be bright green
  - Pragmatic, sustainable practices that make sense economically, socially and environmentally.
  - Respectful of the prairie: defining character; land stewardship.
  - Conservative: water, energy, open space, wildlife habitat.
  - Innovative: land use, waste recycling, and renewable energy.
  - Healthy: local food, active lifestyle.
  - Earth-friendly: walkable/bikeable community connectivity.
3. Adhere to a small town ethic
  - Independent spirit; cooperative work ethic (local and regional).
  - Create “Third Places”: public gathering places, community catalysts.

- Room for individual creativity, participation and growth; expression of authentic character.
4. Promote lifelong learning
- Synergy of teaching and learning opportunities.
  - Proximity of educational institutions to medical, energy, tech and farm operations.
  - Practical, hands-on, experiential; learn by doing.
  - Multi-generational learning, open to all ages.

### **Prosper Integrated and “Smart Growth” Planning Principles**

The vision and directives outlined above have been incorporated into the Prosper master plan by utilizing a comprehensive set of integrated planning and design principles. These principles serve as a guide for all levels and elements of design, phasing and implementation. The integrated and “Smart Growth” planning principles are as follows.

#### **Principle One: Identify and Sustain Green Infrastructure**

Prosper includes an expansive green infrastructure network consisting of existing natural drainage corridors and riparian areas. Large contiguous areas of open space along the perimeter of Prosper have also been preserved as part of the green infrastructure.

This network will serve the community’s need for parks and open space while providing a framework that will shape the community’s form and buffer incompatible land uses. Maintaining the green infrastructure will reduce costs for storm water management, flood control and the components of built infrastructure.

#### **Principle Two: Protect Environmental Systems and Conserve Resources**

##### **Minimize Disturbance**

Prosper utilizes planning techniques that will maintain the integrity of natural drainage systems. The master plan addresses site resources such as hydrology, terrain, geology, site ecology, wildlife and vegetation in a sensitive manner which will enhance project character, environmental awareness and reduce infrastructure costs.

##### **Design for Local Climate**

Development within the Prosper planning areas should address climatic conditions at all levels of the planning and design process. Design issues related to street and open space configuration, building orientation, prevailing winds and vegetative cover for cooling should be addressed. Planning for local climatic conditions will yield economic benefits, encourage alternative methods of transportation as well as contribute to a unique character for Prosper.

##### **Resource Conservation and Recycling**

A variety of water conservation practices and methods will be incorporated into the community at a macro and micro level. Utilizing gray water to recycle water and natural drainage systems to recharge aquifers are practices that can be evaluated as part of the planning process. Landscaping with native plants and drought-tolerant plants adapted to local site climate and moisture conditions will reduce the need for excessive irrigation and will enhance project character and wildlife habitat. Providing soil amendments for poor soils will increase efficient plant growth and reduce water consumption. Concentrating manicured landscapes in areas with high intensity pedestrian use will further contribute to water conservation.

Planning for Energy efficiency should be built into the planning and design of planning areas to minimize or eliminate the use of non renewable energy sources. The inclusion of passive solar principles and natural cooling enhances energy efficiency. Utilizing high-efficiency heating, ventilating, air-conditioning, lighting, appliances, and plumbing systems reduces energy consumption, diminishes waste, and avoids the pollution associated with the use of fossil fuels. Other methods include using resource-efficient materials, reducing the quantity of materials used, designing for durability and adaptability. Reducing construction waste and protecting ecosystems will conserve energy. Re-use of asphalt and aggregates for new building materials can be beneficial and applied to multiple applications.

### **Solid Waste and Recycling**

It will be the intent to establish a solid waste program that will include a comprehensive recycling program. Prosper will work with solid waste disposal companies, Tri-county and Arapahoe solid waste facilities to implement an efficient and sustainable solid waste control program.

### **Principle Three: Community Planning and Open Space Preservation.**

The Prosper master plan incorporates a planning approach that preserves the natural drainages that transcend through the property along with large contiguous open space areas located on the perimeter of Prosper. This approach to planning utilizes densities, building types and site planning configurations that protect and preserve large contiguous areas of open space, important natural features and scenic views. A planning framework is established that reduces sprawl, enhances a "Sense of Community" while reducing infrastructure costs. A planning framework that preserves that centralizes development area and preserves open space corridors provides safety/security and encourages pedestrian activity, the use of bicycle and other alternative modes of transportation. Pedestrian-oriented streets, large contiguous open space areas, community gathering areas, parks and trails systems become the framework and focus of the community.

Incorporating this planning approach has contributed to the preservation of Box Elder Creek, Coyote Run and the associated tributaries that define a significant component of Prosper's "Green Infrastructure" network. This approach to clustering has also allowed the preservation of approximately 762 acres of open space areas along the perimeter of Prosper. This large contiguous area of perimeter open space will be utilized for agriculture, recreation and preservation.

### **Principle Four: Diversity of Housing Types**

The Prosper land use plan permits a diversity of housing types to be constructed. Diverse housing accommodates a multi-generational population and allows for a mix of incomes. This diversity further balances employment with housing by providing residential product types that will accommodate a diverse work force. Long term community residents also have the option of remaining in their neighborhood as they migrate through the lifecycle and in some instances can remain in close proximity to other primary family members.

### **Principle Five: Mixed Use Centers and Neighborhood Focal Points**

Prosper includes a hierarchy of mixed use centers and neighborhood focal points. Planning mixed use centers in the project provides a critical mass and a sense of place that will give the community identity and a heart. Mixed use enclaves will create a destination that includes housing, office, retail, entertainment, medical and civic uses. Mixed use centers provide

convenience to residents, employees and provide attractive and accessible neighborhoods for the elderly.

Creating neighborhood focal points and gathering areas contributes to a “Sense of Community” and reinforces neighborhood identity and character. Neighborhood focal points may include a commons, neighborhood park, school and/or plazas.

### **Principle Six: Community Connectivity**

Prosper is a community that includes a hierarchy of connected streets that disperse traffic by providing drivers, cyclists, and pedestrians with a number of choices to reach their destinations. A system of inter-connected streets will also improve access for emergency vehicles. Providing network of connected streets will reduce travel time and congestion by dispersing traffic throughout the system as opposed to one or two major streets.

Community connectivity within Prosper will also include creating a well-connected system of recreational trails, parks, and open space for residents and to accommodate the needs of a diverse population. The project character and identity are reinforced by providing key connections to neighborhoods, employment centers, schools, churches, commercial centers, parks and open spaces.

**7. A. The nature and location of the new community or expansion will not adversely affect the water quality or water rights of any upstream, downstream, or agricultural users, adjacent communities or other water users.**

The nature and location of Prosper will not adversely affect the water quality or water rights of any upstream, downstream, or agricultural users, adjacent communities or other water users. Prosper will develop new water treatment and water supply systems. These new systems will comply with all County, State, and Federal laws and regulations with respect to water: treatment, quality, and supply development. A discussion of ground water quality is included in Section 12 of Prosper’s 1041 submittal to Arapahoe County. Section 5.2 of the HRS Water Consultants, Inc., September, 2012, Prosper Water Supply Plan Report discusses non injury to other water users from the proposed development of: Denver Basin, renewable, reclaimed, and lawn irrigation return flow water supplies.

**B. Adequate water supplies are available for new community needs.**

Adequate renewable South Platte River surface water, Box Elder Creek alluvial ground water, and Denver Basin ground water are available to meet Prosper’s water supply demands. A description of Prosper’s water demands and the adequacy of water supplies are included throughout Prosper’s Water Supply Plan Report and specifically in (Section 4.2) of the report. At build out Prosper’s demands will be supplied through: renewable South Platte River surface water, Denver basin ground water, reclaimed wastewater, and reclaimed lawn irrigation return flows. Prosper has a Water Court decree for 5,425 acre feet per year from the Denver Basin aquifer beneath Prosper. Prosper’s water supply plan includes 1,305 acre feet per year or 25 percent of the decreed annual amount of Denver Basin ground water. The 1,305 af/yr of Denver Basin ground water represents 25 percent of the total water supply at buildout. The Prosper water supply plan discusses South Plate ditch water rights that have previously been transferred in water court from agricultural use to municipal and other beneficial uses and are available for purchase.

**C. The existing water quality of affected state waters will not be degraded below state and federal standards or established baseline levels.**

The development of Prosper's water supplies will not degrade water in the vicinity of Prosper below state and federal standards or established baseline levels. Prosper will comply with all state and federal municipal waste water treatment and effluent discharge standards. At build out a large portion of Prosper's municipal waste water effluent may not be discharge to a surface drainage. Rather the effluent may be captured on site, treated to the required standards, and used in an onsite non-potable irrigation system.

**D. The proposed project will not have a significantly adverse net effect on the capacities or functioning of streams, lakes and reservoirs in the impact area, nor on the permeability, volume, recharge capability and depth of the aquifers in the impact area.**

Prosper will not have a significantly adverse net effect on the capacities or functioning of streams, lakes and reservoirs in the impact area, nor on the permeability, volume, recharge capability and depth of the aquifers in the impact area. There are no lakes or reservoirs in the impact area. All discharges to a surface drainage by Prosper's waste water treatment plant will comply with all water treatment plant discharge regulations. Ground water production from the Denver Basin aquifers and the South Platte and Box Elder Creek alluvial aquifers will follow Arapahoe County regulations and State law. Logically, pumping from the Denver Basin aquifers will reduce the volume of ground water in the aquifers from which water is withdrawn. Aquifer permeability, recharge capability, and depth of the aquifers will not be affected by ground water withdrawals.

**8. Adequate electric, gas, telephone, water, sewage and other utilities exist or shall be developed to service the site.**

**Central Water System**

A comprehensive water supply plan has been prepared for Prosper to ensure that a sustainable water system is implemented and that will minimize adverse impacts to the existing ground water aquifer and basin. This water supply plan utilizes a combination of Denver Basin aquifer ground water, renewable surface water; reclaimed water and lawn irrigation return flow.

**Waste Water**

Prosper shall design and construct waste water facilities to ensure efficient water use, recycling and the utilization of reuse technology. The community will include modern wastewater treatment facilities with biological nutrient removal (BNR) and filtration for the production of reuse water. The treatment units will include a headworks (influent screening and grit removal), secondary aerobic biological treatment (nutrient reduction), ultraviolet disinfection for discharge to creek, aerobic sludge digestion, sludge handling facilities (thickening or cake production); effluent chemical addition, flocculation, clarification and filtration (Advanced Wastewater Treatment for reuse production), and chlorine disinfection for irrigation within the development. All residential and commercial facilities will include low flow water fixtures to reduce demands.

**Electrical Service**

Prosper is located within the Xcel Energy service area. Xcel Energy currently operates electrical transmission lines to the Prosper property. Transmission lines and facilities will be expanded as required to serve the respective development phases.

### **Gas Service**

Prosper is located within the Colorado Natural Gas service area. There is currently a gas transmission line that exists on the property that will be utilized to service the project. Natural gas lines and facilities will be extended as required to serve the respective phases.

- 9. The applicant has obtained, or will obtain, all property rights, permits and approvals necessary for the proposed project, including surface, mineral, and water rights and easements for drainage, disposal, utilities and access.**

Prosper Farms Investments, LLC has provided a title commitment with this application that outlines the ownership of the land, rights and easements. The applicant currently owns 5,130 acres of surface rights and a portion of the mineral rights. Prosper Farms Investments, LLC ownership also includes approximately 5,425 ac/ft. of Denver Basin ground water rights.

Applicable Federal, State and County approvals and permits will be obtained from the respective entity or agency. Any additional easements or access permits will also be obtained or granted from the adjoining owners.

- 10. Compliance with the applicable Arapahoe County Land Development Code and all the provisions of the permit application procedure.**

Prosper Farms Investments, LLC shall comply with the Arapahoe County Land Development Code and all the provisions outlined in the permit application procedures.

- 11. Compatibility with existing and surrounding land uses, and existing natural environmental conditions of the site.**

Prosper has been master planned to include a mix of land uses as required to reinforce a "balanced" community comprised of commercial, residential, civic and recreational uses. Land uses have been strategically located to provide compatibility with adjacent land use patterns and facilities.

These uses have been located within the context of adjacent land uses that are comprised of existing Interstate 70 and the Watkins Road interchange that is located along the north boundary of Prosper.

There are approximately fourteen outparcels located along Watkins Road. These outparcels include rural residential land uses with some of the parcels remaining vacant. All but one of these outparcels are partially located in the 100-year floodplain. The Watkins Farm subdivision is located east of the property at the intersection of East 6<sup>th</sup> Avenue and Imboden Road.

Located east of the property and south of I-70 is the Thunder Ranches neighborhood. An existing church and cemetery are located along the north perimeter of the property west of the I-70 and Watkins Road interchange. The Sky Ranch property/PDP is located west of the Prosper property. Golden Gun Club is located within an adjacent ¼ section along the south boundary of Prosper. The FAA has a facility located at the southwest corner of the Prosper property.

Prosper includes a master plan that locates more intense land uses such commercial and employment centers along E-470 and the Watkins Road interchange. Less intense and lower

residential densities have been configured adjacent to the large contiguous open space area that is located between Prosper and the adjacent properties located to the east, west and south of Prosper. An open space buffer is provided between the commercial component and Thunder Ranches. Low density residential land uses and an open space buffers have been configured adjacent to the rural outparcels located within the interior of Prosper. A large contiguous open space buffer is proposed between Prosper and Sky Ranch. This open space buffer is located between Prosper and the parcel located in the City of Aurora west of Section 2. A large open space buffer is also located between the Fritzler's subdivision that is located east of Section 18.

A large open space buffer has been provided along the south and east boundary that is adjacent to the Golden Gun Club. Open space is also located adjacent to the FAA facility that also accommodates the 1,500' setback.

The master plan preserves the natural drainage corridors including Box Elder Creek and Coyote Run. These drainage corridors are to be utilized as open space, agriculture and recreation.

- 12. The applicant has made provisions to preserve such natural features as water bodies, ridge lines, streambed meander limits, and steep slopes and to establish and maintain an accessible open-space network for conservation, natural beauty, and recreation, as well, as to prevent environmental pollution, reduce potential natural hazards, and minimize noise problems.**

Existing natural features include the Box Elder Creek, Coyote Run and associated drainages. Planning areas and primary circulation are aligned and configured to integrate with the natural alignment and terrain of the existing drainages. The Box Elder Creek and Coyote Run drainage corridors are to remain as open space and utilized for agriculture and recreation. Other natural drainage tributaries have also been preserved in the master plan.

The soil along the 11,000 linear feet of Coyote Run Creek has been mapped in the Arapahoe County Soil Survey as terrace escarpments. Erosion and particularly water erosion can occur. Soil and drainage basin stabilization techniques and practices will be required to minimize erosion and sloughing. The Prosper project will have a comprehensive storm drainage and water quality system that will be designed to reduce erosion.

- 13. The proposal will not result in detrimental impacts to the existing or planned transportation system, and it has been demonstrated that adequate access has or will be constructed, including any external roadways, interchanges, and railroad crossings necessitated by the build-out of the development. Rural and urban classifications are determined by the Colorado Department of Transportation (state roads) and by the Arapahoe County Transportation Plan (all other roadways) and the land use and transportation circulation plans, and population density and distributions are planned in such a way as to promote adequate, internal accessibility.**

Prosper is designed to include a comprehensive circulation system that is comprised of a hierarchy of street classifications and key transportation connections. Primary streets such as Watkins Road and East 6<sup>th</sup> Avenue have been located and aligned to serve as regional and community transportation connections as outlined in the Arapahoe County 2035 Transportation Plan. As illustrated on the attached master plan, Watkins Road has been realigned to minimize impacts on the Coyote Run corridor and to avoid the 100 year flood plain. This realignment also preserves the rural character associated with the existing residential outparcels located

along Watkins Road. Secondary and tertiary streets are located and aligned to provide a dispersed transportation network that will provide motorists north, south, east and west access alternatives. This dispersed network will further minimize impacts on major arterials and collector streets. Specific street classification within Prosper will be designed to efficiently transport motorists while providing safe and convenient pedestrian connections.

The Watkins Road interchange shall include phased improvements as required to maintain an adequate level of service as each phase of the project is implemented. Prosper Farms Investments, LLC, Arapahoe County Department of Public Works and Development and the Colorado Department of Transportation (CDOT) have been addressing the Watkins Road interchange improvements as part of the CDOT 1601 process.

Neighborhood planning areas are located and configured within a quarter mile of a community focal point or node. These focal points may include a school, commercial mixed use center or park. Locating these focal points within a quarter mile of community focal points will encourage pedestrian activity while reducing reliance on the automobile.

These community focal points or nodes also have the ability to serve as future transit stops that will provide convenient access to residents given the quarter mile proximity to neighborhood planning areas. The regional commercial component located at Watkins Road and Interstate 70 is located within one mile of the existing Union Pacific rail line located north of US 36. This one mile distance will provide convenient access in the event a heavy transit rail system and stop should be implemented in the future.

Prosper includes a comprehensive trail system that is designed to connect to mixed use centers, neighborhoods, parks and schools. Regional trails identified on the Arapahoe County Open Space Plan have also been incorporated into the trails plan. Trails will provide residents alternative transportation modes and routes to access regional and community land use components.

As required, a transportation plan and traffic analysis has been prepared for Prosper. This traffic analysis addresses the scope of items reviewed by the County and is included in this application.

**14. The proposed development is in compliance with the best management practices of the applicable basin authority and the corresponding basin water quality master plan.**

Prosper is located within the regional Coyote Run and Upper Box Elder Creek Outfall System plan that has been prepared by the Urban Drainage and Flood Control District. A comprehensive master drainage plan has been prepared for Prosper that incorporates the water quality and drainage standards and specifications established by the Arapahoe County Department of Public Works and Development Department and the Urban Drainage and Flood Control District. This master plan is also in general compliance with the standards and objectives outlined in the Coyote Run and Upper Box Elder Creek Outfall System plan. The master plan includes water quality and detention ponds that will be located internally on the Prosper property as required to achieve the required storage capacity.

The master water quality and drainage plan will be implemented and maintained in compliance with standards and practices established by Arapahoe County and Urban Drainage and Flood Control District.

- 15. The nature and location of the development will not interfere with threatened or endangered wildlife habitats, or adversely affect any threatened wildlife species, unique natural resource or historic or archaeological landmark, within the development area unless it can be demonstrated that adequate mitigation measure will be taken.**

An archaeological and cultural survey for the Prosper property was conducted by the Colorado Historical Society. The property does not include any cultural resources that are eligible to be listed on the National Register of Historic Places.

The enclosed Colorado Historical Society search (see Section 14) outlines eight sites and five surveys that have been conducted within and adjacent to the Prosper property. These sites are located in the northeast corner of section of Section 6 and the northwest corner of Section 5 within the Box Elder Creek corridor.

As outlined on the following Colorado Historical Society search matrix, the sites are designated as "Field not Eligible" and are not eligible to be listed on the National Register of Historic Places. This designation or assessment does not require that avoidance or mitigation procedures be implemented.

As outlined in the enclosed environmental impact analysis, the predominant wildlife habitat area is located within the Box Elder Creek corridor. This area includes two hawk nests and an owl nest. A coyote den was also identified within the Box Elder Creek corridor. A hawk nest is located in Section 6 south of I-70.

The Box Elder Creek corridor and associated 100-year floodplain will remain as open space minimizing potential impacts. Any potential disturbance to these areas will comply with the mitigation procedures outlined in the analysis.

- 16. The development plan utilizes current design and technology for resource conservation including energy and water, with respect to land utilization.**

Prosper includes a comprehensive water supply plan that conserves groundwater by utilizing renewable supplies, water reuse and conservation. While Prosper includes approximately 5,425 acre feet of decreed Denver Basin groundwater rights, the intent is to develop a central renewable and reuse water supply system to serve the community.

The Prosper water demand analysis estimates that approximately 5,986 acre feet of water per year will be required at full build out of the community. Only 27 percent of supply is to be provided with Denver Basin ground water. Renewable and fully reusable surface water will constitute 35 percent of the total supply. Reclaimed wastewater will be 32 percent of the total supply. Lawn irrigation return flow is 7 percent of the total supply.

Prosper has the unique opportunity to establish a comprehensive water conservation plan that utilizes the latest technologies and methods for efficient utilization and conservation of water. This comprehensive water conservation plan will be implemented in the initial and subsequent phases of the project. This approach will incorporate conservation strategies at a macro and micro level with minimal resident behavioral change required to meet conservation goals. The water conservation plan will be updated over time as new technology and concepts become available. Specific conservation measures for each component of Prosper will be established prior to Final Development Plan of such development.

The conservation plan will include and incorporate strategies for implementation, monitoring and evaluation of consumption as required to achieve water efficiency and conservation goals that are to be established for each project within Prosper.

### **Indoor Water Conservation**

Prosper shall include a water conservation plan that requires residential and non-residential structures to incorporate the latest technologies and methods for conserving water. This plan may include a dual metering or other technology monitoring system to determine indoor and outdoor water use.

Water efficient technologies will include but not be limited to instantaneous hot water systems and high efficiency dishwashers. Low flow water fixtures including toilets and shower heads will be required for each structure constructed within Prosper.

### **Outdoor Water Conservation**

Outdoor water use occurs primarily during the growing season months for irrigation purposes and can account for approximately 50% or more of a detached single-family home's total water consumption. Consumption can vary depending on lot size, home size, seasonal climate and soil conditions. The landscape concept incorporated within each component of the master plan can also significantly impact the amount of water used for irrigation. Irrigation and storm water drainage design and configuration can also significantly minimize the amount of water utilized for outdoor use.

The Prosper master plan addresses outdoor water conservation on a macro level by preserving large contiguous areas of open space that are to remain as non-irrigated agricultural land, prairie or riparian corridors. Irrigated open space areas will be restricted to high intensity recreation and pedestrian zones.

Waterwise landscapes that utilize low water use plants and turf blends will be required for all residential and non-residential projects within Prosper. The use of turf will be reviewed and limited to areas that have a higher intensity of use with regards to recreation and pedestrian activity.

Water efficient irrigation systems that include but are not limited to drip and sub-surface drip will be required. Other strategies will include applying the appropriate soil amendments required to retain moisture. On-site drainage plans can also be designed to direct storm water to landscape beds providing supplemental moisture and reducing infrastructure requirements.

### **Waterwise Certification**

Prosper will implement a waterwise certification program for all residential and non-residential projects to minimize indoor and outdoor water use. High efficiency fixtures and appliances will be required for each project within Prosper. The high efficiency components will include model specifications for all residential toilets, washing machines, dishwashers, kitchen and bath faucets and showerheads. Commercial installation equipment will also have to include high efficiency standards as determined for each project.

Prosper will contract with respective builders and developers to ensure that the certification program is implemented as each phase of the project is constructed. Builders will be required to achieve minimum efficiency standards that are to be prescribed for specific uses and associated outdoor uses.

### **Monitoring and Evaluation**

The Prosper Water Conservation plan will include a monitoring and evaluation program. Technology and staff will be utilized to evaluate indoor and outdoor water consumption to ensure efficiency objectives are being achieved. This program will include making required recommendations and revisions to increase efficiency and conservation for specific applications.

### **Energy Resource Conservation**

Prosper is master planned as a walkable and multi-modal community. Each component of the master plan including land uses, streets, schools, parks and open space trail corridors have been strategically located to provide residents within Prosper alternatives to walk or bicycle to community destinations.

Land uses including mixed use centers, schools and parks have been designed to serve as community and neighborhood focal points. These facilities have been strategically located within a quarter to half mile of each neighborhood providing convenient pedestrian access to services and amenities.

Planning for energy efficiency will be built into Prosper to minimize or eliminate the use of non renewable energy sources. The inclusion of passive solar principles and natural cooling enhances energy efficiency. Utilizing high-efficiency heating, ventilating, air-conditioning, lighting, appliances, and plumbing systems reduces energy consumption, diminish waste, and avoid pollutions associated with the use of fossil fuels.

Each home within Prosper shall be designed to include "Energy Star" conservation components and practices. This will include utilizing "Energy Star" appliances and systems. Low flow water fixtures and appliance shall also be installed as part of the Prosper water conservation plan.

Non-residential buildings shall utilize green building systems and practices. These practices may include but not be limited to utilizing recycled materials and high efficiency mechanical systems.

### **Community Planning and Open Space Preservation.**

The Prosper master plan incorporates a planning approach that preserves the natural drainages that transcend through the property along with large contiguous open space areas located on the perimeter of Prosper. This approach to planning utilizes densities, building types and site planning configurations that protect and preserve large contiguous areas of open space, important natural features and scenic views. A planning framework is established that reduces sprawl, enhances a "Sense of Community" while reducing infrastructure costs. A planning framework that preserves that centralizes development area and preserves open space corridors provides safety/security and encourages pedestrian activity, the use of bicycle and other alternative modes of transportation. Pedestrian-oriented streets, large contiguous open space areas, community gathering areas, parks and trails systems become the framework and focus of the community.

Incorporating this planning approach has contributed to the preservation of Box Elder Creek, Coyote Run and the associated tributaries that define a significant component of Prosper's "Green Infrastructure" network. This approach to clustering has also allowed the preservation of approximately 762 acres of open space areas along the perimeter of Prosper. This large contiguous area of perimeter open space will be utilized for agriculture, recreation and preservation.

17. **The applicant has the technical and financial capability to completely plan and develop the new community within a reasonable time, and the proposed community is economically feasible. This is demonstrated by providing evidence of:**

**a. The technical and administrative capability of the applicant to plan and develop new projects, and expertise and experience of personnel.**

Prosper Farms Investments, LLC is comprised of full-time real estate and legal professionals with extensive experience in the development and operation of complex real estate projects throughout the United States. The Prosper planning and development team is also comprised of professional consultants with extensive experience in environmental analysis, hydrology, economic/fiscal feasibility, planning, landscape architecture, civil engineering, transportation, metropolitan district formation, water and waste water engineering. A list of the consultants and respective profiles are included in this application (see Section 3).

**b. The financial capability of the applicant, including:**

**i. All anticipated costs of developing public and publicly financed services and facilities.**

**ii. The extent to which the development costs will be met by, financial resources of the developer, borrowing, and/or special districts, if any.**

Prosper Farms Investments LLC has prepared a Metropolitan District Service plan that incorporates a financial plan for constructing and maintaining infrastructure improvements including streets, utilities, storm water facilities, water and waste water facilities. The financial plan also provides provisions for constructing and maintaining recreation facilities.

Per the Arapahoe County Planning Department, the Metropolitan District service and financial plans are to be submitted separately from the 1041 permit application. The following is a summary of the proposed Prosper Metropolitan Districts.

### **Costs, Review & Phase**

#### **Estimated Construction Costs and Period of Construction**

It is estimated that approximately \$600,000,000 will be required over a 30 year period to construct and maintain Prosper. Infrastructure improvements including water, sewer, transportation, drainage and recreational facilities will be implemented in multiple phases over a 30 year period.

Financial Description of Revenues, Estimated Debt and Financial Entities.

Enclosed in this section is a summary that outlines the Prosper Metropolitan District structure. The Metropolitan District Title 32 application will be submitted under separate cover.

The purpose of this introduction is to provide an overview of the organizational and relational structure of the metropolitan districts proposed for to serve the mastered planned development known as Prosper ("Prosper" or the "Development") in Arapahoe County, Colorado.

#### **Metro Districts Structure**

The metropolitan districts will cooperate to provide in a coordinated manner public improvements and services that are necessary to develop and maintain Prosper. Following is a description of each of the eight (8) proposed districts and their respective functions (see Section 6 for District Map):

### **1. Prosper Regional Water and Sanitation Metropolitan District.**

Because the development is not presently within the boundaries of any entity that provides water or sanitation services, the Prosper Regional Water and Sanitation Metropolitan District (the "Regional Water and Sanitation Metropolitan District") is being organized to: (a) coordinate the planning, design, construction, acquisition, and operation and maintenance (and/or contracting for same) of the wholesale water and sanitary sewer and storm sewer improvements to the Development; (b) operate and maintain (or contract for same) all wholesale water and sanitary sewer and storm sewer improvements; and (c) own, operate and maintain all retail water, sanitary sewer and storm sewer improvements. The Regional Water and Sanitation Metropolitan District will also have the power to provide service by contract to properties outside the Prosper Master Plan. The Regional Water and Sanitation Metropolitan District will fund the wholesale components of the system out of tap fees and stand by fees, as appropriate, and the proceeds of revenue bond issuances. The Regional Water and Sanitation Metropolitan District will fund the operation and maintenance of wholesale and retail components of the system out of monthly service charges paid by all service users. The corporate boundaries (as opposed to the service area) of the Regional Water and Sanitation Metropolitan District will be limited in area and will most likely not expand through the life of the Development.

Although non-tributary well water will be used to serve the initial phases of the Development, the Regional Water and Sanitation Metropolitan District will prepare a water acquisition and infrastructure development plan ("Water Development Plan") to assure that over time the Development will be served by a sustainable, renewable water supply consistent with Arapahoe County requirements regarding the use of aquifer water, including without limitation recycle and reuse requirements. Such Water Development Plan shall include a schedule of tap fees and service charges for customer calculated from the commencement of water infrastructure development and service delivery to pay for acquisition of renewable water resources and future capital development costs necessary to transition the Development from its dependency on non-tributary water over time to a renewable, sustainable water supply, in addition to paying ongoing service delivery costs.

### **2. Prosper Water and Sanitation Financing Metropolitan District.**

Prosper Water and Sanitation Financing Metropolitan District (the "Water and Sanitation Financing Metropolitan District"), which will comprise all of the property within the Development, will provide funds to support the financing of water and sanitation improvements and facilities constructed by the Regional Water and Sanitation Metropolitan District. It is anticipated that the Water and Sanitation Financing Metropolitan District will levy an ad valorem property tax of up to 20 mills and either (i) pledge the revenues derived from such mill levy to pay bonds issued by the Regional Water and Sanitation Metropolitan District for financing capital costs of water and sanitation improvements and facilities; or (ii) use such revenues to secure bonds issued by the Water and Sanitation Financing Metropolitan District the proceeds of which will be remitted to the Regional Water and Sanitation Metropolitan District for such capital costs.

### **3. Prosper Coordinating Metropolitan District.**

The Prosper Coordinating Metropolitan District (the "Coordinating District") will coordinate financing, construction and with respect to public improvements not conveyed to another public entity, own, maintain and operate all public improvements and facilities throughout the Development (except for the water and sanitation improvements and facilities provided by the Regional Water and Sanitation Metropolitan District) and otherwise provide for coordination among the Districts to provide public services to the Development in the most efficient manner possible. The improvements to be provided by the Coordinating District will include streets, storm water drainage, park and recreation, transportation, television relay and translation, and

mosquito control. The Coordinating District will also have a limited power to provide fire protection services which it will exercise pursuant to one or more intergovernmental agreements with the Bennett Fire Protection District. Capital, administrative, operations, maintenance and administrative costs will be funded by property tax revenues received from the Park and Recreation Financing District and District Nos. 1-4, and, as necessary, fees, rates, tolls and charges. The corporate boundaries of the Coordinating District, like the Regional Water and Sanitation Metropolitan District, will be limited in area and will most likely not expand through the life of the Development.

#### **4. Prosper Park and Recreation Financing Metropolitan District.**

Because the Development is not presently within the boundaries of any entity that provides park and recreation improvements, facilities and services, the Prosper Park and Recreation Financing District (the "Park and Recreation Financing District") is being organized to provide funds to support the financing of park and recreation improvements and facilities constructed by the Coordinating District. The Park and Recreation Financing District will comprise all of the property within the Development. It is anticipated that the Park and Recreation Financing District will levy an ad valorem property tax of up to 8 mills and either (i) pledge the revenues derived from such mill levy to pay bonds issued by the Coordinating District for financing capital costs of park and recreation improvements and facilities or (ii) use such revenues to secure bonds issued by the Coordinating District the proceeds of which will be remitted to the Coordinating District for such capital costs.

#### **5. Prosper Metropolitan District Nos. 1-4.**

Prosper Metropolitan District Nos. 1-4 (collectively, the "Financing Districts") will finance the improvements and facilities constructed by the Coordinating District, other than those financed by the Water and Sanitation Financing Metropolitan District and Park and Recreation Financing District. The initial boundaries of each of Financing District Nos. 1-4 will be drawn to accommodate different land uses (e.g., single-family residential, multi-family residential, commercial, office/industrial, etc.) and phased development over time. It is anticipated that the Financing Districts will levy an ad valorem property tax of up to 50 mills and either (i) pledge the revenues derived from such mill levy to pay bonds issued by the Coordinating District for financing capital costs of improvements and facilities; or (ii) use such revenues to secure bonds issued by the Coordinating District the proceeds of which will be remitted to the Coordinating District for such capital costs.

##### **a. District Coordination and Public Improvement Financing**

The Districts will be quasi-municipal corporations and political subdivisions of the State of Colorado, organized under the Special District Act, Article 1, Title 32, C.R.S., pursuant to Service Plans approved by the Arapahoe County Board of County Commissioners. Accordingly, they will have statutory, constitutional, Service Plan and voted authority to enter into intergovernmental agreements ("IGAs"), which will govern the relationships between and among the Districts with respect to the financing, construction, operations and maintenance of public improvements and facilities for the Development. This will assure that (a) necessary public improvements and services can be financed in the most favorable and efficient manner; (b) all services and improvements needed for the Development will be available when needed through managed development; and (c) a reasonable mill levy and reasonable tax burden on residential and non-residential property within the Development will be maintained through managed financing and coordinated completion of infrastructure improvements.

Following are cost estimates of public improvements to be financed and constructed by the Districts:

Water and Sanitation Improvements	\$200,000,000
Park and Recreation Improvements	\$16,500,000
Other Improvements	<u>\$374,100,000</u>
Total Estimated Costs	\$590,600,000

The Districts will be authorized to issue debt in excess of \$590,600,000 to account for unanticipated cost increases and other contingencies. Based on revenue projections prepared by George K. Baum, it is anticipated that such costs can reasonably be financed from the following revenue sources:

1. Debt Service Mill Levy:  
69.0 mills for residential property (total debt levy imposed by the Park and Recreation Financing District, a Financing District and the Water and Sanitation Financing Metropolitan District)  
51.5 mills for non-residential property
2. Specific Ownership Taxes resulting from the Debt Service Mill Levies
3. Tap Fees:  
\$15,000 per residential tap  
\$25,000 per non-residential tap
4. Facilities Fees:  
\$1,000 per high-density and mixed-use residential unit  
\$2,000 per medium density and low-density residential unit

Although property within each of the Financing Districts will be overlapped by the Water and Sanitation Financing Metropolitan District and Park and Recreation Financing District, the aggregate debt service mill levy rates shown above are comparable to the combined debt service mill levies of other metropolitan districts in the market area that are overlapped by other entities that provide water and sanitation and park and recreation services.

It is anticipated that the Financing Districts will also levy 10 mills for operation, maintenance and administrative costs of the Districts, which will be provided by the Coordinating District.

The proposed multiple District structure will assure that all public improvements necessary to serve the Development can be financed, constructed, operated and maintained in a coordinated manner and phased to accommodate development as it occurs and on a basis that will not unduly burden any portion of the property.

**18. The project is in proximity to primary and secondary schools of adequate capacity, has the ability to provide for adequate educational facilities or has proposed an acceptable plan for mitigating the impact on schools with inadequate capacity:**

Approximately 3,930 acres of the Prosper property is located within the Bennett School District. The southwest portion of the property that is approximately 1,200 acres is located within the Aurora School District.

Based on the projected density at full build-out, Prosper is estimated to include approximately 5,450 students. This estimate is based on student generation formulas provided in the Arapahoe County Subdivision Regulations. Estimated student population will be finalized with each respective phase of development and Final Development Plan and Final Plat.

Based on discussions with the Bennett School District Superintendent, the school district currently has capacity in the elementary, middle and high school located in Bennett. Sufficient physical capacity exists within the current school facilities with the possibility that additional staff may have to be retained once the final student load is determined.

Prosper is master planned to include five (5) joint use school/park sites that can accommodate an elementary or kindergarten through eighth grade school. The master plan also includes one (1) high school. A planning area has been incorporated into the plan that permits other public and private educational facilities such as a community college or technological institute.

The final quantity, size and location of each school site will be determined at the time of Final Development Plan and Final Plat. Coordination of shared facilities such as parks will also be coordinated at the time of Final Development Plan and Final Plat.

**19. Applicant has complied with all of the provisions of the permit application procedure.**

It is the intent of Prosper Farms Investments, LLC to comply with the review process and procedures outlined in the 1041 permit requirements and as outlined by the Arapahoe County Planning and Engineering staff in the pre-application meeting.

**20. In order to ensure a long-term water supply, and given the concern with dependence on bedrock groundwater, and the difficulty in supplying future surface sources, the following shall apply: Be able to provide a Service Plan or Water Supply Plan using an aquifer life assumption of a 100-year supply, non-tributary groundwater classification only, assuming a 50 percent recovery factor.**

Prosper Farms Investments, LLC has prepared a Water Supply Plan for the Prosper Development, authored by water supply experts. The Water Supply Plan is enclosed in this 1041 Permit application and includes the following:

1. Estimates the water demand through build-out to be 5,986 af/yr.
2. Describes the following proposed physical sources of water supply:
  - a. 1595 af/yr of decreed non-tributary water owned by Prosper. This represents 27% of the total supply and only 40% of Prosper's decreed non-tributary water.
  - b. 2085 af/yr of renewable water to be delivered by ACWWA via the ECCV pipeline; and from the ECCV pipeline, via a 3.5 mile pipeline to the Prosper development, representing 35% of the total supply. Requires a court-approved augmentation plan. The report also identifies proposed sources of senior augmentation water.
  - c. 1,913 af/yr of reclaimed wastewater arising from indoor water usage, which equals 32% of the total supply. 808 af/yr of the reclaimed wastewater is derived from indoor use of Prosper's non-tributary water. Thus, Prosper currently owns 2,113 af/yr of the

water that will be used to meet its projected 5,220 af/yr build-out demand (1,305 + 808 = 2,113).

1. 392 af/yr of reclaimed lawn irrigation return flows; 7% of the total supply.
  - i. Includes a Conditional Will-Serve Letter issued by ACWWA to Prosper Farms LLC.
  - ii. Estimates the amount of water yield projected from the proposed water supply under various hydrologic conditions.
  - iii. Describes the water conservation measures that may be implemented.
  - iv. Describes the waster demand management measures that will be implemented.
  - v. Demonstrates that each of the above four physical sources of supply are adequate in terms of:
    1. Quantity
    2. Quality
    3. Dependability
    4. Availability

**21. To efficiently utilize public and private investments in infrastructure and urban service areas, substantial build out must be demonstrated within Sub-Area Plans that are within 10 miles of the proposed development. Substantial shall be defined as 70% build out of residential, and 50% build out of industrial/commercial businesses.**

The Lowry Subarea plan is located approximately two miles south of the Prosper property. This Subarea does not include the substantial build out as defined in the criteria above. The Lowry Subarea does not include infrastructure to serve urban or suburban level development.

**22. The applicant has demonstrated that the socio-economic, or land use conditions of the County, either have changed, or are in the process of change, in such a manner to warrant approval.**

Prosper is located within the western segment of the Interstate 70 Planning Reserve Tier One area that is identified on the Comprehensive Plan update. The Comprehensive Land Use Plan illustrates the desired concentration of future urban development in this Planning Reserve classification. Planning Reserve Areas are proposed in the Comprehensive Plan to contain a greater mix of uses and higher densities than what is typically developed today, and will provide employment opportunities near the places where citizens reside.

The Comprehensive Plan goals, policies and strategies state that Planning Reserve Areas will have a compact land use pattern to maintain the small town, rural character of the communities and corridor. In keeping with these goals, policies and strategies, Prosper includes a master plan that includes a clustered and compact form resulting in the preservation of large contiguous open space areas.

2010 Census data has indicated that there is an expansive aging population located within the eastern metropolitan area including Arapahoe County. Prosper proposes a diversity of housing types, services and recreational facilities that will accommodate a multi-generational population.

The I-70 Chamber of Commerce and the Regional Economic Advancement Partnership (REAP) are actively marketing the Interstate 70 corridor. In keeping with the goals of Arapahoe County and these two agencies, Prosper is master planned with land uses and infrastructure that can

accommodate a variety of commercial, retail and employment uses. Providing a diverse housing stock within close proximity to employment centers is a primary consideration when attracting employment generators.

- 23. If negative fiscal impacts to Arapahoe County or other units of government occur as a result of the project, either mitigation and monitoring of such negative fiscal impacts or particular benefits to Arapahoe County, must be demonstrated to the satisfaction of the Board of County Commissioners, to offset such impacts.**

A fiscal impact report is included in this application that includes a financial analysis and summary outlining the cost and benefit to the residents of Arapahoe County. As outlined in the enclosed report, Prosper will provide a positive financial impact with regards to the local economy, government agencies and the County General Fund.

While Prosper will provide a positive net effect to the County's General Fund, additional expenditures for street and road maintenance will be required. Based on discussions with Arapahoe County Department of Public Works and Development, it is our understanding that the County is considering adopting a road maintenance fee structure to address additional road maintenance revenue.

Please see the enclosed Fiscal Impact Report which outlines the financial impacts and implications.

## The Application

- Application Fee Schedule
- 1041 Permit Review Fee
- Review Consultant Fees

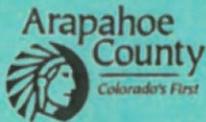


1

THE APPLICATION

**PROSPER**

A new community with an optimistic spirit  
where one can flourish, thrive and succeed



**Public Works and Development**  
 10730 E. Briarwood Ave., #100  
 Centennial, CO 80112  
 Phone: 720-874-6650 FAX 303-798-6054  
 www.co.arapahoe.co.us

**LAND DEVELOPMENT APPLICATION**  
 Green Form

<b>APPLICANT:</b> Vogel & Associates LLC	<b>ADDRESS:</b> 475 West 12th Ave, Suite E Denver, CO 80204  <b>PHONE:</b> 303.893.4288 <b>FAX:</b> 303.893.6792 <b>EMAIL:</b> jvogel@vogelassoc.com	<b>SIGNATURE:</b>  <b>NAME:</b> Jeffrey B. Vogel  <b>TITLE:</b> Principal
<b>OWNER(S) OF RECORD:</b> Prosper Farms Investment, LLC	<b>ADDRESS:</b> 5641 N Broadway Denver, CO 80215  <b>PHONE:</b> 303.566.8915 <b>FAX:</b> 303.918.4216 <b>EMAIL:</b>	<b>SIGNATURE:</b>  <b>NAME:</b> Woody Boyd  <b>TITLE:</b> VP General Manager Real Estate
<b>REPRESENTATIVE FIRM:</b> Vogel & Associates LLC	<b>ADDRESS:</b> 475 West 12th Ave, Suite E Denver, CO 80204  <b>PHONE:</b> 303.893.4288 <b>FAX:</b> 303.893.6792 <b>EMAIL:</b> jvogel@vogelassoc.com	<b>CONTACT PERSON:</b> Jeffrey B. Vogel
<b>ENGINEERING FIRM:</b> Engineering Partners Inc.	<b>ADDRESS:</b> 1950 W Littleton Blvd., Suite 109 Littleton, CO 80120  <b>PHONE:</b> 303.703.4444 <b>FAX:</b> 303.703.4530 <b>EMAIL:</b> spease@eng-partners.com	<b>CONTACT PERSON:</b> Scott Pease, PE

Presubmittal case number:	Presubmittal Planner:	Presubmittal Engineer:
Parcel ID number:		
Address or intersection:		
Subdivision name:		

	EXISTING	PROPOSED:
Zoning:	A-1	PUD
Total acres:	5,111 acres	5,111 acres
F.A.R./Floor Area Ratio or Density:	None	0.7 - 0.9
Square footage:	None	8,000,000 Comm. sq. ft., 9,000 Res Units
Project name:	Prosper	Prosper
Related case numbers: (Final/Preliminary Development Plan and/or Plat)	None	None

CASE TYPE			
<input checked="" type="checkbox"/>	1041 -Activities of State Interest	Final Plat	<input checked="" type="checkbox"/> Preliminary Development Plan
	Comprehensive Plan	Location & Extent Plan	Preliminary Plat
	Conventional Rezoning	Master Development Plan	Replat (Major)
	Amendment to a Final Development Plan (Major)	Minor Subdivision	Rural Cluster Development
	Final Development Plan	Amendment to a Preliminary Development Plan (Major)	Special District
			Street Name Change
			Use by Special Review
			Vacation of Right-of Way, of Public Easement or of Plat

**THIS SECTION FOR OFFICE USE ONLY**

Case No:	Planning Manager:	Engineering Manager:
Planning Fee: Y N \$	Engineering Fee: Y N \$	

This development application shall be accompanied with the applicable fee and shall not be considered valid until the total application fee is received. Submittal of this application does not mean you will receive automatic approval, nor does it establish a vested property right in accordance with C.R.S. 24-68-105(1). Further processing and review of this application may require additional information, and/or meetings, as outlined in the Arapahoe County Land Development Code.



**Public Works and Development**

10730 E. Briarwood Ave., #100 Centennial CO 80112 Phone: 720-874-6650 FAX 303-798-6054

[www.co.arapahoe.co.us](http://www.co.arapahoe.co.us)

**PLANNING REVIEW FEE SCHEDULE**

Effective Date -January 1, 2003

**MINOR CASE (BLUE FORM)**

\$2000.00 Engineering fee plus all other applicable Engineering review fees, except for Technical Amendment, see Engineering Review Fee Schedule

-and-

All applicable Planning fees paid in full at time of submittal (see table below).

Submit two separate checks at time of submittal - one payable to Arapahoe County Planning, and one payable to Arapahoe County Engineering

<b>Administrative</b>	<b>Administrative Site Plan or Final Development Plan- During Construction, prior to C.O.</b>	Per Case	\$	3,000.00
<b>Administrative</b>	<b>Administrative Site Plan or Final Development Plan- Before Construction</b>	Per Case	\$	1,500.00
<b>Administrative</b>	<b>Location and Extent</b>	Per Case	\$	1,500.00
<b>Administrative</b>	<b>Master Development Plan</b>	Per Case	\$	1,500.00
<b>Administrative</b>	<b>Preliminary Development Plan</b>	Per Case	\$	1,500.00
<b>Administrative</b>	<b>Replat</b>	Per Case	\$	1,500.00
<b>Administrative</b>	<b>Subdivision Development Plan</b>	Per Case	\$	1,500.00
<b>Administrative</b>	<b>Use by Special Review</b>	Per Case	\$	1,500.00
<b>CMRS Review (Commercial Mobile Radio Service)</b>		Per Case	\$	1,000.00
<b>Correction Plat</b>		Per Case	\$	1,500.00
<b>Minor Comprehensive Plan Amendment</b>		Per Case	\$	1,500.00
<b>Subdivision Exemption</b>		Per Case	\$	1,500.00
<b>Technical Amendment</b>		Per Case	\$	500.00

**MAJOR CASE (BLUE or GREEN FORM)**

Engineering fee (Based on acreage)

< 5 acres = \$ 2500.00; ≥ 5 acres and < 25 acres= \$ 5000.00; ≥ 25 acres = \$7500.00  
plus all other applicable Engineering review fees, see Engineering Review Fee Schedule

-and-

All applicable Planning Fees (see table below).

Submit two separate checks at time of submittal - one payable to Arapahoe County Planning, and one payable to Arapahoe County Engineering

<b>INITIAL SETUP</b>			\$	500.00		
<b>MAJOR CASES</b>						
<b>Administrative Site Plan</b>	<i>Blue Application</i>	Per Sheet	\$	500.00		
<b>Certificate of Designation</b>		Per Case	\$	15,000.00		
<b>Comp Plan Amendment</b>		Per Case	\$	15,000.00		
<b>Final Development Plan or Formal Amendments</b>	Sheets 1-10	\$	2000.00 ea.	Sheets 11-x	\$	500.00 ea

**MAJOR CASE (BLUE or GREEN FORM)**

Engineering fee (Based on acreage)

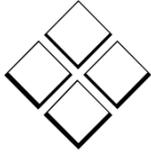
< 5 acres = \$ 2500.00; ≥ 5 acres and < 25 acres = \$ 5000.00; ≥ 25 acres = \$7500.00  
plus all other applicable Engineering review fees, see Engineering Review Fee Schedule

-and-

All applicable Planning Fees (see table below).

Submit two separate checks at time of submittal - one payable to Arapahoe County Planning, and one payable to Arapahoe County Engineering

<b>Final Plat</b>	Sheets 1-10	\$ 2000.00 ea	Sheets 11-x	\$ 500.00 ea
<b>Location &amp; Extent</b>	Sheets 1-10	\$ 2000.00 ea	Sheets 11-x	\$ 500.00 ea
<b>Master Development Plan or Formal Amendments</b>	Sheets 1-10	\$ 2000.00 ea	Sheets 11-x	\$ 500.00 ea
<b>Minor Subdivision</b>	Sheets 1-10	\$ 2000.00 ea	Sheets 11-x	\$ 500.00 ea
<b>Preliminary Development Plan or Formal Amendments</b>	Sheets 1-10	\$ 2000.00 ea	Sheets 11-x	\$ 500.00 ea
<b>Preliminary Plat</b>	Sheets 1-10	\$ 2000.00 ea	Sheets 11-x	\$ 500.00 ea
<b>PUD Amendment</b>	Sheets 1-10	\$ 2000.00 ea	Sheets 11-x	\$ 500.00 ea
<b>Replat</b>	Sheets 1-10	\$ 2000.00 ea	Sheets 11-x	\$ 500.00 ea
<b>Rezoning</b>	Sheets 1-10	\$ 2000.00 ea	Sheets 11-x	\$ 500.00 ea
<b>Rural Cluster</b>	Sheets 1-10	\$ 2000.00 ea	Sheets 11-x	\$ 500.00 ea
	<b>Site Analysis</b>			\$ 750.00
	<b>Conservation Area Management Plan</b>			\$ 750.00
<b>Street Name Change</b>	Setup fee not required		Per Case	\$ 750.00
<b>Subdivision Development Plan</b>	<i>Blue Application</i>		Per Sheet	\$ 1000.00
<b>Subdivision Exemption</b>	<i>Blue Application</i>		Per Case	\$ 1,500.00
<b>1041 Permit Areas &amp; Activities of State Interest and Use By Special Review for major electrical, natural gas &amp; petroleum derived facilities</b>	Fee based on fully loaded county staff salaries for time spent in reviewing a 1041 permit case. A \$10,000.00 initial deposit is required.			
<b>Special District Requests (Title 32)</b>	Per Case \$10,000.00 or 1/100 of 1% of the debt listed in the Service Plan, whichever is less			
<b>Use By Special Review or Formal Amendments</b>	Sheets 1-10	\$ 2000.00 ea	Sheets 11-x	\$ 500.00 ea
<b>Vacation of Easement</b>	Setup fee not required		Per Case	\$ 750.00
<b>Vacation of Right of Way</b>	Setup fee not required		Per Case	\$ 750.00
<b>Resubmittal Charges</b> Cost Per Sheet or 50% of Original Submittal Fee				



# VOGEL & ASSOCIATES

*Integrated Planning with Innovative Solutions*

## MEMORANDUM

TO: Project File  
FIRM: Prosper Farms Investment LLC  
FROM: Jeff Vogel  
PROJECT: Prosper 1041 and PDP Review Fees  
DATE: 5/22/12  
CC: Arapahoe County

---

The content of this transmittal is intended for the individual addressed and may contain information that is privileged, confidential and exempt from disclosure. Any distribution or copying of this message is prohibited except with Vogel & Associates written authorization. Thank you.

### **Prosper Review Fees**

**The following are the Prosper initial submittal review fees.**

#### **Planning Review Fees**

Preliminary Development Plan	\$500.00
1041 Permit Areas	\$10,000.00 Deposit

#### **Public Works Review Fees**

Preliminary Development Plan	\$7,500.00
Phase I Drainage Report	\$750.00
Traffic Impact Study	\$750.00

## The Applicant

- Applicant Contact Information
- Design Team Contact Information
- Letter of Authorization
- Owner's Financial Ability



2

THE APPLICANT

**PROSPER**

A new community with an optimistic spirit  
where one can flourish, thrive and succeed

## 2. The Applicant

### A. Applicant/Owner(s) of Record

#### **Prosper Farms Investments, LLC**

5641 N. Broadway  
Denver, CO 80215

Phone: (303) 566-8915  
Fax: (303) 918-4216  
Contact: Jeffrey Vogel, AICP  
Email: jvogel@vogelassoc.com

### **Applicant Representative Contact Information**

#### **Vogel & Associates, LLC**

475 W. 12<sup>th</sup> Avenue, Suite E  
Denver, CO 80204

Phone: (303) 893-4288  
Fax: (303) 893-6792  
Email: jvogel@vogelassoc.com  
Contact: Jeffrey Vogel, AICP

### B. Design Team Contact Information

#### **Prosper Planning Team**

Prosper is an integrated and balanced master planned community that incorporates several economic, environmental, social and cultural considerations to ensure the project's intent is achieved. This comprehensive and balanced approach is supported by a planning and development team comprised of several disciplines that have extensive experience with master planned communities.

The following is an outline of the planning team. This outline summarizes the professional expertise and experience of each respective discipline.

#### **Planner and Landscape Architect:**

Vogel & Associates, LLC  
475 W. 12<sup>th</sup> Avenue, Suite E  
Denver, CO 80204

Phone: (303) 893-4288  
Fax: (303) 893-6792  
Email: jvogel@vogelassoc.com  
Contact: Jeffrey Vogel, AICP

Vogel & Associates, LLC is the project planner and landscape architect for Prosper. This planning role has included working on the Prosper project for that last eight years on issues related to property acquisition and monitoring local and regional planning initiatives. Vogel & Associates is

also responsible for preparing the required master plan and coordinating the Preliminary Development Plan and 1041 review process.

By utilizing a small multi-disciplinary studio approach, in collaboration with nationally recognized design consultants and specialists, Vogel & Associates is able to provide services ranging from initial strategic consultation on land planning and development issues to long range comprehensive planning, design and project management.

The established team of Vogel & Associates has extensive experience in integrated planning and design as required to master plan, design and re-position projects in this new and evolving real estate market. Services include integrated land planning, urban design, landscape architecture, adaptive-reuse planning, energy efficient community design and real estate feasibility.

This diversity of professional experience, involving a variety of geographic locations, combined with the firm's holistic approach to the practice of planning and design, has resulted in numerous nationally recognized mixed use, residential, education, recreation and resort community projects. Our commitment to implementing the vision established for each project along with our high-level of service has resulted in several long-term community and client relationships.

### **Civil Engineering:**

CORE Consultants Inc.  
1950 W. Littleton Blvd., Suite 109  
Littleton, CO 80120

Phone: (303) 703-4444  
Fax: (303) 703-4530  
Contact: Scott Pease, PE

The project civil engineer is CORE Consultants Inc. (CCI). Engineering services for the Prosper project includes preparing preliminary utility, grading and drainage plans.

CORE Consultants Inc. (CCI) is a full service and schedule oriented company. CCI has established itself as one of the most reliable engineering firms in the area. We have distinguished ourselves as experts in single and multi-family residential projects, as well as commercial and industrial developments.

Today CCI is a full-service civil engineering company that provides all the expertise necessary to complete any size land development project on-schedule and within monetary constraints. Our services include, but are not limited to, grading plans, street improvement plans, sanitary and storm sewer design, area grading plans, water distribution system design and analysis, provision of major and minor drainage improvements, infrastructure master planning, and support during construction activities.

CCI has worked to gain project approval in every major city and county in the Denver area and strives to maintain its working relationships with design review engineers in every municipality. We also maintain close relationships with the project surveyors and contractors with whom we work. Our engineers are experts in doing what it takes to gain approval and achieve completion for each and every project.

CCI has performed work for three of the nation's ten largest home builders and many of Denver's largest and most reputable developers, and master planned communities including Highlands Ranch, Green Valley Ranch and the Meadows.

## **Environmental Analysis and Planning:**

Western Ecological Resource, Inc.  
711 Walnut Street  
Boulder, CO 80302

Phone: (303) 449-9009  
Fax: (303) 449-9038  
Contact: David Johnson

Western Ecological is the Prosper environmental team consultant. Environmental services include preparing the required environmental assessment for the Preliminary Development Plan and 1041 submittal. This effort includes addressing issues related to vegetation, wildlife, air quality etc. The firm of McVehil-Monnett Associates, Inc. has been responsible for preparing the air quality analysis.

Western Ecological Resource, Inc. is an ecology consulting firm serving Colorado and the western United States. We offer a full range of professional ecological services from an interdisciplinary team of specialists. Western Ecological Resource provides services to a diversity of industries as well as local, state and federal agencies in Colorado and the western United States. Since establishment in 1978, our ecologists and associated natural resource scientists have provided consulting services to more than 500 clients. We are dedicated to helping our clients achieve their project goals in a timely and cost effective manner. More than 95% of our business is from existing clients.

We provide expertise in the areas of vegetation, wetlands, weed management, forest health, wildfire hazards, wildlife and aquatic biology, threatened, endangered, and rare species, soil science, geology, reclamation/ecological restoration, stream restoration, NEPA compliance, permitting and project approvals, and project management. Our natural resource studies incorporate the latest technologies including GPS, CAD, GIS, and high-resolution aerial imagery, and we have in-house capabilities for the production of reports with presentation quality graphics.

Our work throughout Colorado and the Western United States has allowed us to develop a comprehensive understanding of the ecology of this diverse region and the ecological issues and concerns to state and federal land resource managers. Over the past 32 years, we have developed a thorough understanding of local, state and federal environmental regulations and laws, and have established positive working relationships with personnel in environmental regulatory agencies. We also have extensive experience with the environmental review, compliance and permitting process. We use our ecological and regulatory expertise to facilitate client compliance with environmental regulations and laws to quickly achieve their project goals. For more information on our experience and qualifications, please see our website at [www.westerneco.com](http://www.westerneco.com).

### **McVehil-Monnett Associates, Inc.**

McVehil-Monnett Associates, Inc. is an experienced firm of atmospheric scientists, engineers, and environmental specialists providing air quality and environmental consulting services to industry and government clients. Since its inception in 1984, McVehil-Monnett Associates has completed more than 1,000 projects for hundreds of clients in the U.S. and abroad. Their services include air permitting; impact analyses; air quality modeling and monitoring; environmental regulatory compliance; and litigation support services. For additional details on McVehil-Monnett Associates, please refer to their website: [www.mcvehil-monnett.com](http://www.mcvehil-monnett.com).

## **Wildlife Specialties, LLC**

Wildlife Specialties, LLC provides innovative environmental consulting services throughout Colorado and the western United States. They are a private consulting firm specializing in wildlife-related planning, baseline studies, inventories, habitat management, and research. Their expertise includes NEPA compliance; Endangered Species Act section 7 consultations; threatened and endangered species habitat assessments and surveys; impact analyses and wildlife mitigation plans; Migratory Bird Treaty Act compliance; and toxicology studies. Their biologists have considerable experience evaluating the potential impacts of transportation projects to wildlife, including the Canada lynx. Jerry Powell, the president of Wildlife Specialties, LLC, is a certified wildlife biologist with more than 18 years of professional experience. His expertise includes NEPA compliance, sensitive species surveys and habitat assessments, small mammal studies, avian surveys, and environmental impact assessments. For additional details on Wildlife Specialties, LLC and their services, please refer to their website: [www.wildlifespecialtiesllc.com](http://www.wildlifespecialtiesllc.com).

## **Buscher Soil & Environmental, Inc.**

Buscher Soil & Environmental, Inc., owned by David Buscher, provides technical services in the fields of soils and geology. They are the premier firm in Colorado specializing in hydric soil identification for wetland delineations, and have extensive experience with wetlands throughout the state of Colorado. Mr. Buscher is a Certified Professional Soil Scientist, Ecological Engineer, and Professional Geologist with more than 27 years of experience. His expertise includes mapping and describing soils and geomorphic features, delineating wetlands, hydric soil identification, and evaluating geologic hazards for NEPA compliance documents.

## **Hydraulic and Water Resources:**

HRS Water Consultants, Inc.  
8885 W. 14<sup>th</sup> Avenue  
Lakewood, CO 80215

Phone: (303) 462-1111  
Fax: (303) 462-3030  
Contact: Mark R. Palumbo, Principal Hydrologist

HRS Water Consultants is the Prosper hydrologist and water resource specialist. These services have included analyzing and evaluating ground water, surface water and preparing water demand analysis for the Prosper project.

HRS Water Consultants, Inc. specializes in providing the complete range of services necessary for analysis and development of surface and ground water supplies. The HRS staff, which is composed of specialists in the disciplines of ground water hydrology, hydrogeology, geophysics, surface water hydrology, and water rights engineering, provides optimal solutions to difficult and unique water supply and water rights issues. The experience of the staff throughout the Rocky Mountain region, combined with state-of-the-art investigation techniques and evaluation methods, assures cost-effective and beneficial solutions.

The firm's clientele includes individual water users, municipalities, special districts, private owners and ventures, ditch and reservoir companies, irrigation districts, State and Federal agencies, residential and business-complex developers, mining companies, exploration and energy firms, and citizens' groups.

**Transportation Engineer:**

Felsburg Holt and Ullevig  
6300 S. Syracuse Way, Ste. 600  
Centennial, CO 80111

Phone: (303) 721-1440  
Fax: (303) 721-0832  
Contact: Charles M. Buck, P.E., PTOE

Felsburg Holt and Ullevig (FHU) is the Prosper transportation engineer. Transportation services have included preparing a traffic demand analysis, coordinating with the Colorado Department of Transportation and preparing required Preliminary Development Plan and 1041 transportation reports.

Felsburg Holt & Ullevig is a consulting firm specializing in transportation planning, traffic engineering, civil engineering design, and environmental services. The philosophy of the firm is to provide high quality professional services on a wide range of transportation and design projects, with emphasis on developing creative, cost-effective and environmentally sensitive solutions. The strength of our firm comes from a group of Principals with many years of technical and management experience who are actively involved in projects to assure the highest level of customer satisfaction. The entire staff is committed to conceiving the best project for the client and the community. The company adheres to the multi-disciplinary team concept and has extensive experience in managing complex endeavors as well as serving as a sub-consultant.

Since its founding in 1984, the company's business plan has been to maintain a highly qualified professional and technical staff. Felsburg Holt & Ullevig has grown to a current full-time staff of nearly 90 people, including multi-modal transportation planners, traffic engineers, civil design engineers, structural engineers, environmental analysts, construction management specialists, GIS specialists, technicians, and graphic designers. Our award-winning staff includes almost 40 professional engineers registered in Colorado and several other states. Felsburg Holt & Ullevig has offices in Centennial and Colorado Springs, Colorado as well as Omaha and Lincoln, Nebraska, allowing us to serve both the Rocky Mountain region and the Midwest.

Our professional services encompass the spectrum of transportation and related civil engineering design. In addition to the technical and analytical skills necessary for successful project completion, we also provide supplementary support services essential for project implementation. Felsburg Holt & Ullevig provides community participation, public presentation, and governmental processing services as required by the project work program and the client's objectives.

**Economic and Fiscal Impact Analysis:**

Coley/Forrest  
990 S. Adams Way  
Denver, CO 80209

Phone: (303) 778-1020  
Fax: (303) 722-1279  
Contact: Jean Coley Townsend

Coley/Forrest, Inc. has been retained by Prosper to prepare an economic and fiscal impact analysis. This effort has included preparing a fiscal impact analysis within the context of the Arapahoe County economic model that Coley/Forrest initially worked with the County to prepare.

Coley/Forrest, Inc. is a Colorado corporation, established in 1981, with offices in Denver at 990 S. Adams Way. The firm provides a range of financial and economic consulting services to local governments, special districts, developers, asset managers, lenders, and investment bankers.

The range of services includes the following:

- Detailed examination of viable public and public/private techniques to finance desired capital improvements, including transportation, parking, parks, open space, recreation, drainage and other improvements;
- Economic forecasts of population, housing and employment for regions and metropolitan areas;
- Real estate feasibility analyses for developers, asset managers, districts, pension funds and local governments, which identify market potential for specific parcels or general areas of concern;
- Expert witness testimony regarding market feasibility and public finance;
- Informal public/private sector "mediation" regarding public finance and economic development issues;
- Fiscal evaluation and fiscal impact analyses for local governments and districts on a case by case or jurisdiction wide basis;
- Revenue projections for general fund (property tax, sales tax, real estate transfer tax, etc.) and enterprise fund (tap fees and user fees) accounts for governments and investment bankers;
- Economic development plans of action which articulate specific approaches to accomplish desired economic development objectives, and;
- Land acquisition management on behalf of public entities.

Most recently, the firm's practice has focused on public finance solutions where both public and private sector interest groups are actively engaged.

### **Metropolitan Districts:**

McGeady Sisneros  
450 E. 17th Avenue, Suite 400  
Denver, CO 80203

Phone: (303) 592-4380  
Fax: (303) 592-4385  
Contact: MaryAnn McGeady, PC

McGeady Sisneros, P.C. has extensive experience in Arapahoe County and has been retained as part of the Prosper planning team as legal counsel for the formation of the Prosper Metropolitan Districts. The Firm's primary areas of practice are: Special Districts, Municipal Finance, Municipal Law, Real Estate, Real Estate Finance, and Construction Law.

Members of the Firm have been involved in all aspects of special district representation for over twenty-six (26) years, including, but not limited to, organization, construction and construction financing, right-of-way acquisition, intergovernmental agreements, public finance, and debt restructuring. In addition, the Firm has represented clients in evaluating the impact of property being included in a special district and evaluating the enforceability of liens and agreements with special districts.

The Firm serves as general counsel to over two hundred (200) special districts, including metropolitan districts, water and sanitation districts and fire protection districts. This representation includes the ongoing representation of these entities with regard to all matters,

including, but not limited to agreement negotiation and drafting, financing, construction, operations, elections, right-of-way acquisition and intergovernmental agreements.

Members of the Firm have also represented a broad spectrum of clients in real estate matters: investors, developers, lenders, borrowers, landlords, tenants, covenant declarants, home builders, purchasers and sellers. Members of the Firm have organized and provided advice to real estate limited partnerships and have a broad base of experience in all phases of commercial real estate practice.

The Firm's experience includes the drafting and negotiating of contracts for the purchase and sale of real property. In the area of real property leasing, our attorneys have experience in both landlord and tenant representation for shopping centers, industrial parks, and office buildings. Our real estate department also has significant experience in the area of real estate financing, including participation agreements and purchases and sales of loans. We have experience in foreclosures (both public trustee and quiet title), deeds in lieu of foreclosure, wrap-around mortgages and deeds of trust, loan modifications and workouts.

C. Letter of Authorization

THIS CONSENT AUTHORIZES **JEFFREY VOGEL** OF VOGEL & ASSOCIATES, LLC TO REPRESENT PROSPER FARM INVESTMENTS, LLC IN ALL MATTERS CONCERNING THE DEVELOPMENT APPLICATION FOR THE REAL PROPERTY KNOWN AS **PROSPER** LOCATED IN ARAPAHOE COUNTY, COLORADO.

Prosper Farms Investments, LLC  
BY: Woody Boyd

STATE OF: Colorado

COUNTY OF: Adams

THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME, THE UNDERSIGNED NOTARY PUBLIC, THIS 21<sup>st</sup> DAY OF June A.D., 2012

BY Woody Boyd AS THE OWNER'S REPRESENTATIVE  
(SIGNATURE)

Woody Boyd  
(NAME)

WITNESS MY HAND AND OFFICIAL SEAL:

MY COMMISSION EXPIRES: 5/10/15

Maubel Danner  
NOTARY PUBLIC



My Commission Expires \_\_\_\_\_

## **D. Owner's Financial Ability**

Prosper Farms Investments, LLC is the sole owner of the 5,130 acre parcel that is to be transformed in to the vital mixed use community of Prosper. The owners of Prosper Farms Investments, LLC have over 40 years of experience in the acquisition and development of raw land, including the design, construction, financing and operation of more than 100 real estate projects which has resulted in several multi-million dollar investments. The Prosper property was purchased for cash with assumed debt relating to only one parcel.

This extensive experience and real estate portfolio includes the acquisition, construction, and operation of commercial office, industrial, distribution and retail projects throughout the United States. Each project has required a unique approach to ensure that aesthetic, economic and environmental considerations are appropriately addressed and project goals are achieved.

The extensive experience of the owners and management team of Prosper Farms Investments, LLC includes constructing and operating sustainable and smart energy projects. This experience in conjunction with the commitment to sustainability and integrated planning remains a primary directive for each project including Prosper.

Prosper is proposed to include eight metropolitan districts. Through one or more Intergovernmental Agreements the Districts will coordinate the planning; design; acquisition; financing; construction; operations and maintenance of road and transportation improvements; water; sanitary sewer; storm drainage improvements; park and recreation improvements; and mosquito control services.

THIS PAGE INTENTIONALLY LEFT BLANK



All of us serving you®

950 Seventeenth Street  
Denver, CO 80202

June 21, 2013

Re: Prosper Farms Investments, LLC

To the Board of County Commissioners of Arapahoe County:

It is my understanding that a 1041 Permit Application concerning 5,130 acres in Arapahoe County near Watkins, Colorado has been submitted to the County on behalf of Prosper Farms Investments, LLC ("Prosper Farms"). I further understand that in connection with the Application, the County needs assurance that Prosper Farms has the ability to finance the costs associated with the initial development phase improvements that are contemplated for this project, and that the cost of these improvements are currently estimated at around Twelve Million Dollars.

Please be advised that as a result of a longstanding and satisfactory banking relationship, I am familiar with the financial capabilities of Prosper Farms, and I can assure you that Prosper Farms currently has the ability to finance such improvements.

Very Truly,

Joseph Gavan,  
Vice-President – Commercial Banking



## BENNETT FIRE PROTECTION DISTRICT #7

DISTRICT OFFICE: 303-644-3572 Fax: 303-644-3401

EMAIL: [BUREAUDIVISION@BENNETTFIRERESCUE.ORG](mailto:BUREAUDIVISION@BENNETTFIRERESCUE.ORG)

*"Striving to Preserve Life and Property"*

---

January 31, 2013

Jeff Vogel  
Vogel & Associates  
475 W. 12<sup>th</sup> Ave - Suite E  
Denver, CO 80204

Re: Planned "Prosper" Development – Watkins, CO

Mr. Vogel,

In regards to your planned development in Watkins, Colorado, Bennett Fire Protection District is providing you this letter for Arapahoe County to confirm the following:

- Vogel & Associates has met with Bennett Fire Protection District providing information on the planned Prosper Development in the Watkins, CO area.
- Bennett Fire Protection District is currently able to provide Fire, Emergency Medical, and Hazardous Materials response services to this planned development.
- During the future build out, additional fire stations or emergency services locations may be needed within the area of the development. Bennett Fire Protection District and Vogel & Associates are working together regarding planning for such facilities within the development area as the project moves forward.

If you have any other questions or concerns, please feel free to contact me. Thanks!

Thank You

Lieutenant Caleb J. Connor  
Life Safety Division  
Bennett Fire Protection District  
303-644-3572 - Headquarters / 303-532-7733 - Direct  
[www.BennettFireRescue.org](http://www.BennettFireRescue.org)



Division of Support Services  
15701 E. 1st Ave. Suite 206  
Aurora, CO 80011  
Phone: 303-365-7812, ext. 28464  
FAX: 303-326-1947

---

March 1, 2013

Mr. Jeff Vogel  
Vogel and Associates  
475 W 12th Avenue, Suite E  
Denver, CO 80204

Mr. Vogel:

Thank you for meeting with us to discuss the general development plan for Prosper. We appreciate your willingness to work with the district's school site criteria. As we discussed, the district will require either one site for a large prototype K-8 school or two sites for two of our small prototype K-8 schools to serve the expected number of students in the portion of the development that is within APS. We look forward to meeting with you in the future to determine the number and location of school sites once you have a better idea of the number of units and layout of the residential portion of Prosper.

Sincerely,

A handwritten signature in blue ink, which appears to read "Joshua D. Hensley".

Joshua D. Hensley  
Planning Coordinator



# BENNETT SCHOOL DISTRICT

Amy Kirkwood—President  
Mike Sheely—Vice President & Legislative Liaison  
Diane Moler—Secretary & BEF Liaison  
Michael Kisting—Treasurer  
Troy Karsten—BOCES Representative

Dennis D. Veal—Superintendent

March 11, 2013

Jeff Vogel  
Prosper Farms Investments, LLC  
c/o Vogel & Associates, LLC  
475 W. 12<sup>th</sup> Avenue, Suite E  
Denver, CO 80204

Dear Jeff:

This is in response to your request for comments from the Bennett School District 29J concerning the adequacy of the District's education facilities to meet the projected capacity of the proposed Prosper development. It is our understanding that the Prosper development is projected to have approximately 9,000 dwelling units at full build-out, the majority of which would be within the boundaries of our school district. The development will proceed in phases over the next 20 or so years.

With respect to our current facilities, the District has four buildings, a high school, middle school, elementary school and preschool. Enrollment in these schools is approximately 277, 240, 395 and 53 respectively. Based upon our current delivery of educational programs, the numbers of additional students that could be housed in these facilities are: high school: 303 (580 capacity); middle school: 80 (320 capacity); elementary school: 65 (460 capacity) and preschool 37 (90 capacity).

Given the projected student yields from the development, at minimum, it will be necessary to obtain additional school sites for schools at all levels, including a new high school. You have already indicated that four sites are in your initial planning and would be dedicated to the School District in phases. We will want to work with you to confirm the number and identify the proposed locations of sites.

Of course, as you know, construction of new schools to provide adequate capacity for the projected new students will be a financial challenge for the District, as it would be for any school district. The conventional method of building schools by issuing general obligation bonds may not be the most timely, reliable or effective way to ensure that school capacity is available. As a result, we also will want to explore with you and the developer what other district and developer funding mechanisms might be available and feasible to provide adequate educational facilities for the students.

In summary, while we currently have very limited overall capacity to house many additional students, we are willing and look forward to working with you and the developer to address the projected needs for additional educational sites and facilities.

Sincerely,

  
Dennis D. Veal  
Superintendent of Schools  
Bennett School District

cc: Sherman Feher  
Case Planner  
Arapahoe County Planning Department  
6924 South Lima Street  
Centennial, CO 80112



3751 Fraser St  
Aurora, CO 80011

Feb. 4, 2013

Engineering Partners  
1950 W Littleton Blvd #109  
Littleton, CO 80120  
Attn: Scott Pease

Re: Will Serve Letter for Prosper Subdivision-Watkins, CO (Hayesmount Rd and E Alameda Ave)

Dear Mr Pease

In accordance with our tariffs filed with and approved by the Colorado Public Utilities Commission, electric facilities can be made available to serve your project at the intersection of Hayesmount Rd and E Alameda Ave south of Watkins, CO.

Service will be provided after engineering is completed, payment is received, any easements are signed, and construction can be completed. We will have better information available after design has been completed as to a scheduled in-service date.

If I can be of further assistance, please call me at 303-375-3508.

Sincerely,

A handwritten signature in cursive script that reads 'Dale Eckberg'.

Dale Eckberg  
**Xcel Energy | Responsible By Nature**  
Designer, Gateway Service Center  
3751 Fraser St, Aurora, CO 80011  
P: 303-375-3508 F: 303-375-3555  
E: [dale.eckberg@xcelenergy.com](mailto:dale.eckberg@xcelenergy.com)



P.O. Box 270868 • Littleton, Colorado 80127 • Phone (303) 979-7680 • Fax (720) 981-2129 • [www.ColoradoNaturalGas.com](http://www.ColoradoNaturalGas.com)

---

Mr. Scott A. Pease, P.E.  
1950 W. Littleton Blvd  
#109  
Littleton, CO 80120

March 27, 2013

Mr. Pease:

Pursuant to the Public Utilities Commission of the State of Colorado (“Commission”), Colorado Natural Gas, Inc., (“CNG”) has the authority to serve the territory identified in Commission Docket No. 11A-343G, which includes Sections 1, 2, and 12 T4S, R65W. A listing of CNG’s full service territory is included in the Company’s Tariff on file with the Commission. Colorado Natural Gas, Inc. can and will serve Sections 11, 13, and 14 T4S, R65W as a normal course of business.

Please feel free to contact me with any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "Michelle A. Moorman".

Michelle A. Moorman  
Director, Regulatory Affairs  
Colorado Natural Gas, Inc.  
7810 Shaffer Pkwy, Ste 120  
Littleton, CO 80127  
720-981-2127  
[mmoorman@SummitUtilitiesInc.com](mailto:mmoorman@SummitUtilitiesInc.com)

## Submittal Requirements Applicable to New Communities

- Intent and Justification
- The Prosper Legacy
- Vision and Directives
- Integrated Planning and Design Principles
- Location Map and Existing Conditions
- Compliance with County Comprehensive Plan
- Intergovernmental Agreements
- Compliance with County Land Development Codes & Design Guidelines
- Land Use Plan
- Phasing Plan
- Public Services & Utility Plan
- Regional Population
- Developer's Financial Ability
- Architectural and Streetscape Character
- Open Space Plan
- Existing Conditions & Green Infrastructure Plan



3

### PROSPER SUBMITTAL REQUIREMENTS

**PROSPER**

A new community with an optimistic spirit  
where one can flourish, thrive and succeed

### **3. Submittal Requirements Applicable to New Communities**

#### **a. Intent and Justification**

Located on the Colorado High Plains, Prosper is envisioned as a balanced master planned community that incorporates innovative and integrated planning principles. The strategic location, natural characteristics in conjunction with the magnitude of the property provides a unique opportunity to create a community of economic, social and environmental significance to Arapahoe County and the region.

Prosper is estimated to be implemented in multiple phases over 30 years. A planning and implementation approach has been established to ensure that the directives and principles established for Prosper will be achieved as the project evolves overtime.

Arapahoe County has identified Interstate 70 east corridor as a potential growth area (Planning Reserve) that extends from the City of Aurora to Deer Trail. This growth area has been divided into three tiers or phases of growth. It is envisioned that tier I of this growth corridor will occur from the west that extends east to the existing Bennett town core. Prosper is located in the western portion of the tier I growth corridor with convenient access to regional economic engines such as Denver International Airport and Front Range Airport. Market and feasibility studies have been prepared for the corridor with each outlining a demand for commercial, light industrial and a variety of residential land uses.

In keeping with the goal of creating a balanced master planned community, Prosper is proposed to include a mix of uses that will serve as regional and community employment generators. Land uses that include regional commercial, community commercial, neighborhood commercial, medical, civic, "just in time" manufacturing, distribution, research and development have been incorporated into the plan.

Residential land uses that include a diversity of housing types accommodating a diverse population are also incorporated in the plan. The master plan is configured and programmed with a diversity of housing types permitting residents to reside in their respective neighborhoods as they evolve through the lifecycle.

A master plan framework plan has been prepared to reinforce walkable neighborhoods that are in close proximity to services and amenities. Community connectivity and the dispersal of traffic is a critical component of the master plan.

#### **b. The Prosper Legacy**

To prosper is to succeed, to flourish and to thrive. It is an idea full of energy and vitality, and it captures the optimistic spirit that lives at the heart of the community and the region. The vision and directives for Prosper were developed and influenced by several factors related to the environment, community and the social/cultural heritage of the region.

Watkins was incorporated as a Town on June 14, 2004. However, on November 7, 2006 the Town voted to revert to being an unincorporated community. During the period of incorporation, the Town initiated a Comprehensive Planning process. Community input provided during the Watkins Comprehensive Plan process in conjunction with subsequent discussions has also shaped the vision and directives for Prosper.

The directives and planning principles outlined below are also consistent with the goals and policies outlined in the Arapahoe County Comprehensive Plan and DRCOG 2020 plan.

### c. Vision and Directives

1. Be productive
  - Prosper is envisioned as an active, multi-dimensional place: not a passive bedroom community.
  - Synergistic mix of uses: office, retail, light industry, R&D, agriculture, energy (petroleum and renewable), health services, residential, educational and recreational.
  - Entrepreneurial; incubator for new businesses.
  - Diverse and multigenerational.
2. Be bright green
  - Pragmatic, sustainable practices that make sense economically, socially and environmentally.
  - Respectful of the prairie: defining character; land stewardship.
  - Conservative: water, energy, open space, wildlife habitat.
  - Innovative: land use, waste recycling, renewable energy.
  - Healthy: local food, active lifestyle.
  - Earth-friendly: walkable/bikeable community connectivity.
3. Adhere to a small town ethic
  - Independent spirit; cooperative work ethic (local and regional).
  - Create Third Places: public gathering places, community catalysts.
  - Room for individual creativity, participation and growth; expression of authentic character.
4. Promote lifelong learning
  - Synergy of teaching and learning opportunities.
  - Proximity of educational institutions to medical, energy, tech and farm operations.
  - Practical, hands-on, experiential; learn by doing.
  - Multi-generational learning, open to all ages.

The vision and directives outlined above have been incorporated into the Prosper master plan by utilizing a comprehensive set of integrated planning and design principles. These principles are to serve as a guide for all levels and elements of design, phasing and implementation. The integrated planning principles are as follows.

- Principle One: Identify and sustain green infrastructure (i.e. drainage corridors).
- Principle Two: Protect environmental systems and conserve resources.
- Principle Three: Community Planning and Open Space preservation.
- Principle Four: Establish a diversity of housing types.
- Principle Five: Mixed use centers and neighborhood focal points.
- Principle Six: Community connectivity.

As outlined above the Prosper planning team utilized the above directives and principles to formulate the attached 1041 and Preliminary Development Plan. This effort included evaluating and incorporating concepts and principles discussed at workshops that were conducted as part of the Watkins Comprehensive Plan along with subsequent discussions with community stakeholders.

## **d. Integrated Planning and Design Principles**

### **Principle One: Identify and Sustain Green Infrastructure**

Prosper includes an expansive green infrastructure network consisting of existing natural drainage corridors and riparian areas. Large contiguous areas of open space along the perimeter of Prosper have also been preserved as part of the green infrastructure.

This network will serve the community's need for parks and open space while providing a framework that will shape the community's form and buffer incompatible land uses. Maintaining the green infrastructure will reduce costs for storm water management, flood control and the components of built infrastructure.

### **Principle Two: Protect Environmental Systems and Conserve Resources**

#### **Minimize Disturbance**

Prosper utilizes planning techniques that will maintain the integrity of natural drainage systems. The master plan addresses site resources such as hydrology, terrain, geology, site ecology, wildlife and vegetation in a sensitive manner which will enhance project character, environmental awareness and reduce infrastructure costs.

#### **Design for Local Climate**

Development within the Prosper planning areas should address climatic conditions at all levels of the planning and design process. Design issues related to street and open space configuration, building orientation, prevailing winds and vegetative cover for cooling should be addressed. Planning for local climatic conditions will yield economic benefits, encourage alternative methods of transportation as well as contribute to a unique character for Prosper.

#### **Resource Conservation and Recycling**

A variety of water conservation practices and methods will be incorporated into the community at a macro and micro level. Utilizing gray water to recycle water and natural drainage systems to recharge aquifers are practices that can be evaluated as part of the planning process. Landscaping with native plants and drought-tolerant plants adapted to local site climate and moisture conditions will reduce the need for excessive irrigation and will enhance project character and wildlife habitat. Providing soil amendments for poor soils will increase efficient plant growth and reduce water consumption. Concentrating manicured landscapes in areas with high intensity pedestrian use will further contribute to water conservation.

Planning for Energy efficiency should be built into the planning and design of planning areas to minimize or eliminate the use of non renewable energy sources. The inclusion of passive solar principles and natural cooling enhances energy efficiency. Utilizing high-efficiency heating, ventilating, air-conditioning, lighting, appliances, and plumbing systems reduces energy consumption, diminishes waste, and avoids the pollution associated with the use of fossil fuels. Other methods include using resource-efficient materials, reducing the quantity of materials used, designing for durability and adaptability. Reducing construction waste and protecting ecosystems will conserve energy. Re-use of asphalt and aggregates for new building materials can be beneficial and applied to multiple applications.

### **Principle Three: Community Planning and Open Space Preservation.**

The Prosper master plan incorporates a planning approach that preserves the natural drainages that transcend through the property along with large contiguous open space areas located on the perimeter of Prosper. This approach to planning utilizes densities, building types and site planning configurations that protect and preserve large contiguous areas of open space, important natural features and scenic views. A planning framework is established that reduces sprawl, enhances a “Sense of Community” while reducing infrastructure costs. A planning framework that preserves that centralizes development area and preserves open space corridors provides safety/security and encourages pedestrian activity, the use of bicycle and other alternative modes of transportation. Pedestrian-oriented streets, large contiguous open space areas, community gathering areas, parks and trails systems become the framework and focus of the community.

Incorporating this planning approach has contributed to the preservation of Box Elder Creek, Coyote Run and the associated tributaries that define a significant component of Prosper’s “Green Infrastructure” network. This approach to clustering has also allowed the preservation of approximately 790 acres of open space areas along the perimeter of Prosper. This large contiguous area of perimeter open space will be utilized for agriculture, recreation and preservation.

### **Principle Four: Diversity of Housing Types**

The Prosper land use plan permits a diversity of housing types to be constructed. Diverse housing accommodates a multi-generational population and allows for a mix of incomes. This diversity further balances employment with housing by providing residential product types that will accommodate a diverse work force. Long term community residents also have the option of remaining in their neighborhood as they migrate through the lifecycle and in some instances can remain in close proximity to other primary family members.

### **Principle Five: Mixed Use Centers and Neighborhood Focal Points**

Prosper includes a hierarchy of mixed use centers and neighborhood focal points. Planning mixed use centers in the project provides a critical mass and a sense of place that will give the community identity and a heart. Mixed use enclaves will create a destination that includes housing, office, retail, entertainment, medical, and civic uses. Mixed use centers provide convenience to residents, employees and provide attractive and accessible neighborhoods for the elderly.

Creating neighborhood focal points and gathering areas contributes to a “Sense of Community” and reinforces neighborhood identity and character. Neighborhood focal points may include a commons, neighborhood park, school and/or plazas.

### **Principle Six: Community Connectivity**

Prosper is a community that includes a hierarchy of connected streets that disperse traffic by providing drivers, cyclists, and pedestrians with a number of choices to reach their destinations. A system of inter-connected streets will also improve access for emergency vehicles. Providing network of connected streets will reduce travel time and congestion by dispersing traffic throughout the system as opposed to one or two major streets.

Community connectivity within Prosper will also include creating a well-connected system of recreational trails, parks, and open space for residents and to accommodate the needs of a diverse population. The project character and identity are reinforced by providing key connections to neighborhoods, employment centers, schools, churches, commercial centers, parks and open spaces.

## e. Location Map and Existing Conditions

Prosper is approximately 5,130 acres that is located in unincorporated Arapahoe County. The property is defined by Interstate 70 to the north and bisected by the Watkins Road interchange that extends to the south. Imboden Road is located on the east and Hayesmount Road is aligned along the west boundary of the property.

A majority of the property is zoned A-1 with a small portion located in the northeast corner zoned R-A. The property is undeveloped and continues to be dry land farmed. As illustrated on Exhibit 3.a.1 and 3.d.2 there are approximately fourteen outparcels located along Watkins Road. These outparcels include rural residential land uses with some of the parcels remaining vacant. Thirteen of these outparcels are partially located in the 100-year floodplain. The Watkins Farm subdivision is located east of the property at the intersection of East 6<sup>th</sup> Avenue and Imboden Road. Golden Gun Club is located within an adjacent ¼ section along the south boundary of Prosper. The FAA has a facility located at the southwest corner of the Prosper property.

Located east of the property and south of I-70 is the Thunder Ranches neighborhood. An existing church and cemetery are located along the north perimeter of the property west of the I-70 and Watkins Road interchange. The Sky Ranch property/PDP is located west of the Prosper property. Also located to the west are the proposed Trails at First Creek. A land parcel located in the City of Aurora is located west of Section 2. Fritzler's subdivision is located east of Imboden Road and to the east of Section 18. Golden Gun Club is located within an adjacent ¼ section along the south boundary of Prosper. The FAA has a facility located at the southwest corner of the Prosper property.

Existing site characteristics include gently rolling topography that includes expansive vistas to the Front Range and mountains. Vegetation consists of a small cluster of trees located within the Coyote Run corridor at the intersection of East 6<sup>th</sup> Avenue and Watkins Road. Clusters of existing vegetation also exist in the Box Elder Creek corridor.

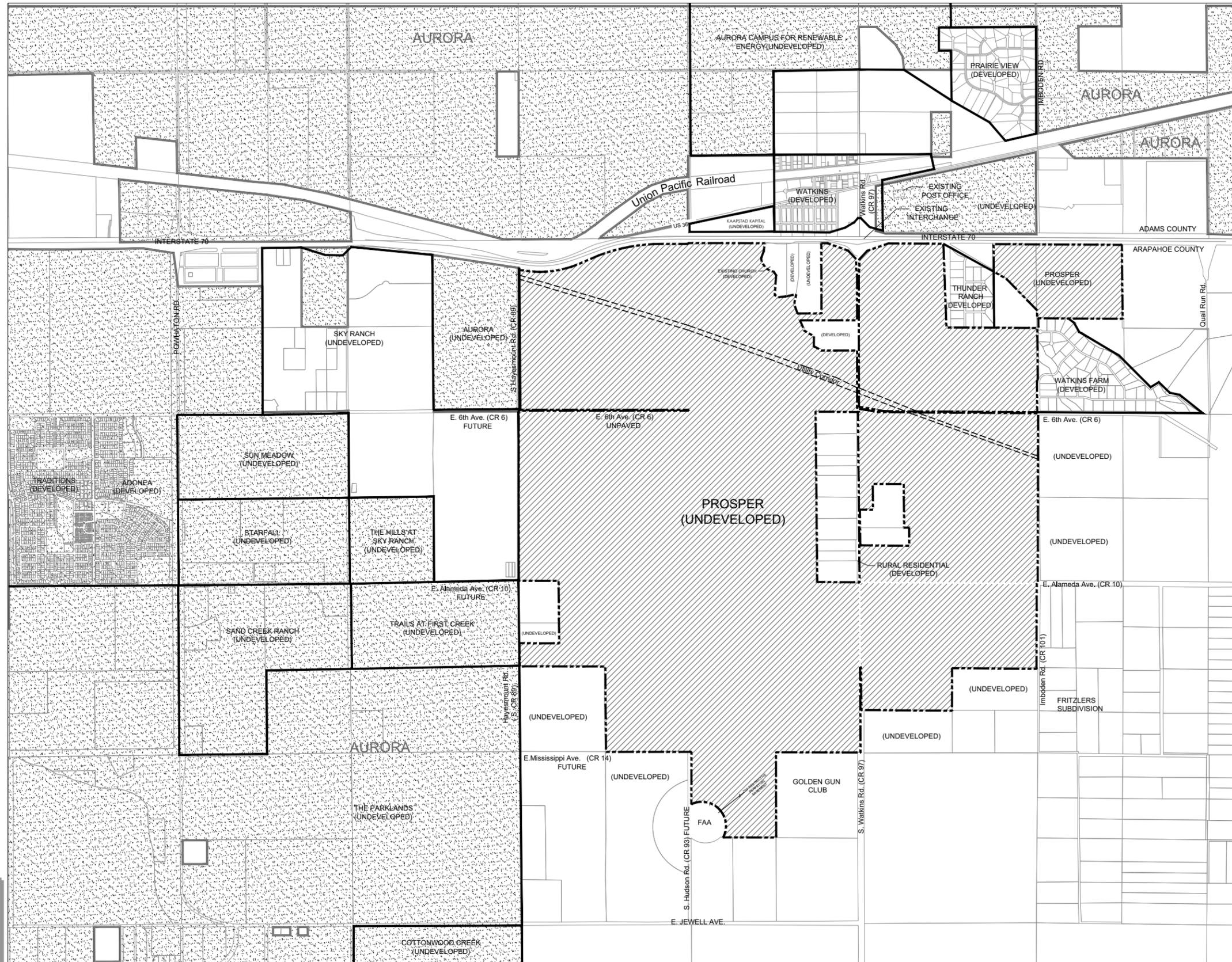
The property is bisected by the Coyote Run drainage corridor which is located in the 100 year FEMA floodplain. Tributaries include Woodrat Gulch, Rat Gulch, Prairie Dog Draw, Cardboard Draw and Muskrat Gulch. Muskrat Gulch and a portion of Woodrat Gulch are located in the 100 year floodplain. Box Elder Creek is located in the northeast parcel located south of I-70. The majority of the property is located in one primary drainage basin that flows to Coyote Run. A small portion of the property located in Section 14 is located in the First Creek Basin.

Existing paved roads include Watkins Road and East 6<sup>th</sup> Avenue. Each of these roads is comprised of two paved lanes with a gravel shoulder. An existing frontage road is located on the south side of I-70 that provides access to the church and the Thunder Ranches neighborhood located to the east.

THIS PAGE INTENTIONALLY LEFT BLANK

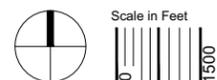
# PROSPER

PARCELS OF LAND SITUATED IN SECTIONS 5, 6, 7 & 18, T.4S., R.64W.,  
AND SECTIONS 1, 2, 11, 12, 13, 14 & 24, T.4S., R.65W., OF THE 6TH P.M.  
COUNTY OF ARAPAHOE, STATE OF COLORADO  
ARAPAHOE COUNTY 1041 PERMIT  
EXHIBIT 3-a-1 - ADJACENT COMMUNITIES



### LEGEND

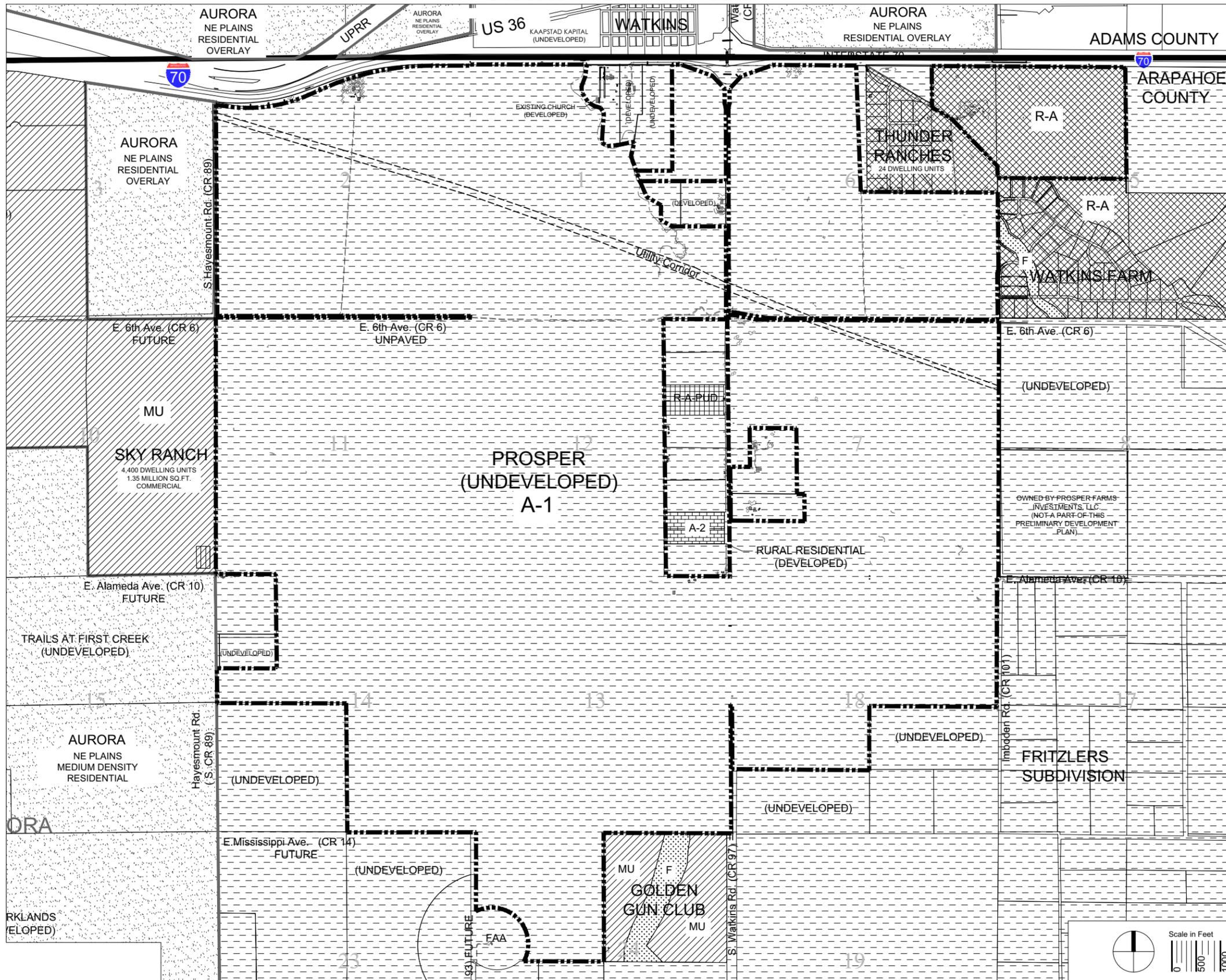
PROSPER FARMS INVESTMENTS, LLC PROJECT AREA



Scale:	
Date: JUNE 4, 2012	
Revision Date:	OCTOBER 19, 2012
JULY 9, 2013	FEBRUARY 7, 2014
JUNE 20, 2014	OCTOBER 20, 2014

# PROSPER

PARCELS OF LAND SITUATED IN SECTIONS 5, 6, 7 & 18, T.4S., R.64W.,  
AND SECTIONS 1, 2, 11, 12, 13, 14 & 24, T.4S., R.65W., OF THE 6TH P.M.  
COUNTY OF ARAPAHOE, STATE OF COLORADO  
ARAPAHOE COUNTY 1041 PERMIT  
EXHIBIT 3-d-2 - ZONING MAP



### LEGEND

**ZONING**

- A-1
- A-2
- R-A
- RA-PUD
- MU
- F (FLOODPLAIN)
- CITY OF AURORA

### EXISTING ZONING

Scale: \_\_\_\_\_

Date: JUNE 4, 2012

Revision Date:	OCTOBER 19, 2012
	JULY 9, 2013
	FEBRUARY 7, 2014
	JUNE 20, 2014
	OCTOBER 20, 2014

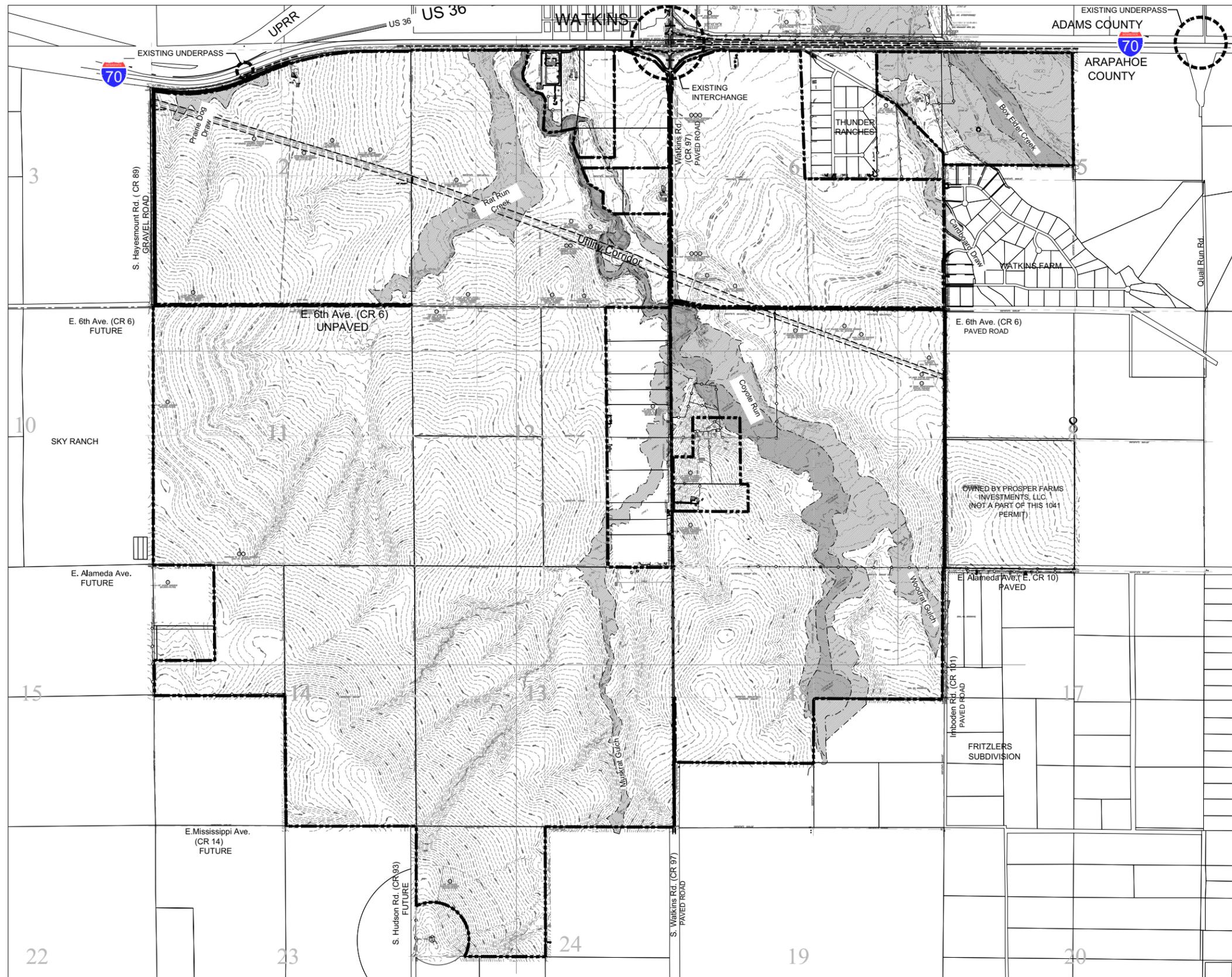
Scale in Feet  
0 500 1000

8 OF 45

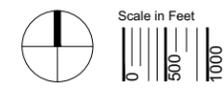


# PROSPER

PARCELS OF LAND SITUATED IN SECTIONS 5, 6, 7 & 18, T.4S., R.64W.,  
AND SECTIONS 1, 2, 11, 12, 13, 14 & 24, T.4S., R.65W., OF THE 6TH P.M.  
COUNTY OF ARAPAHOE, STATE OF COLORADO  
ARAPAHOE COUNTY 1041 PERMIT  
EXHIBIT 3-a-3 - EXISTING CONDITIONS



- LEGEND**
- Property Line
  - FEMA Floodplain
  - FEMA Floodway



Scale:	
Date: JUNE 4, 2012	
Revision Date:	OCTOBER 19, 2012
JULY 9, 2013	FEBRUARY 7, 2014
JUNE 20, 2014	OCTOBER 20, 2014



## **f. Compliance with County Comprehensive Plan**

Prosper is located within the western segment of the I-70 Planning Reserve Tier One area that is identified on the Comprehensive Plan update. The Comprehensive Land Use Plan Update illustrates the desired concentration of future urban development in this Planning Reserve classification. Planning Reserve Areas are proposed in the Comprehensive Plan to contain a greater mix of uses and higher densities than what is typically developed today, and will provide employment opportunities near the places where citizens reside.

Prosper is in keeping with the Vision and Guiding Principles outlined in the Arapahoe County Comprehensive Plan (Section II Vision and Guiding Principles page 19 – 24). The Prosper master plan is also consistent with the Arapahoe County Comprehensive land use plan and advances the plan vision, goals, policies and strategies outlined below.

As described in the Comprehensive Plan, “The Vision for Arapahoe County describes the County’s values and aspirations in terms of what kind of place the County will be over the next 20 years.” Outlined below are elements outlined in the Comprehensive Plan that define the Vision for Arapahoe County that have also been incorporated into Prosper.

### **VISION**

**“Maintains a balance between growth and the natural environment.”** *(Section II, page 19)*

**“Conserve natural areas and environmental quality”** *(Section II, page 19)*

Prosper is master planned to preserve natural drainages including the Coyote Run and Box Elder Creek corridors. These drainage corridors are to remain as natural open space and recreation areas.

Large contiguous open space areas have been preserved along the perimeter of Prosper. These open space areas equate to approximately 762 acres.

**“Maintain its rural heritage and character”** *(Section II, page 19)*

**“Protect its cultural and historic community treasures”** *(Section II, page 19)*

The Prosper property is currently undeveloped and contains no historic structures. Prosper has historically been utilized for dry-land farming. It is the intent is to create a community that will include elements that are reminiscent of small towns or communities that are located within eastern Colorado.

These towns or communities often include a main street that is comprised of retail, civic and community services. A town park or square is located off of the main street and in some instances may include civic uses such as a library, museum or amphitheater. Grain elevators are sometimes located in the core of the Town near the main street.

Medium to high residential product types are located within the Town core. Lower density residential is typically located on the periphery adjacent to open space or agricultural fields.

The Prosper land use plan locates more intense land uses and densities at the core adjacent to Interstate 70 and Watkins Road, East 6<sup>th</sup> Avenue and Watkins Road and Alameda and Watkins Road.

Medium and high density residential land uses are located in the center of Prosper. Low density residential densities are proposed along the perimeter adjacent to large contiguous open space and agricultural areas.

Similar to other small communities in eastern Colorado, Prosper is programmed to community focal points such schools and parks. The large contiguous open space located along the perimeter is to be utilized for agriculture, recreation and prairie preservation. While a variety of recreation and agricultural

related land uses are permitted in the perimeter open space and agriculture zone district, a minimum of 80% of the land area shall remain as open space.

**“Provides diversified housing opportunities and safe, attractive neighborhoods.”** *(Section II, page 19)*

Prosper is comprised of several neighborhoods. Each neighborhood is designed and configured to include a diversity of housing types and densities. This diversity of housing types will allow residents to remain in their neighborhoods and social centers as they evolve through their respective life cycle.

**“Meets transportation needs of residents and visitors”** *(Section II, page 19)*

Prosper is master planned to include a comprehensive transportation system that will be comprised of a series of interconnected streets. This transportation system will disperse traffic and reinforce community connectivity.

In keeping with the provisions outlined in the Arapahoe County 2035 Transportation Plan, Prosper will also provide regional north/south and east/west connections. Watkins Road will be improved to serve as a primary north/south connection for the region. Improved 6<sup>th</sup> Avenue will serve as a primary east/west connection.

**“Balances the cost of providing services and facilities with revenues received from development”** *(Section II, page 19)*

Prosper will serve as a commerce and employment center which will result in significant tax revenue for Arapahoe County. The Prosper metropolitan districts will generate revenues as required to support specific services for the community.

A fiscal impact report has been prepared for Prosper that includes a financial analysis and summary outlining the cost and benefit to the residents of Arapahoe County. As outlined in the enclosed report, Prosper will provide a positive financial impact with regards to the local economy, government agencies and the County’s General Fund. Please see the enclosed Fiscal Impact Report (see Section 6) which outlines the financial impacts and implications.

**Arapahoe County Comprehensive Plan Principles** *(Section II, page 20)*

**“Appropriate Land Use Patterns”** *(Section II, page 20)*

In keeping with the planning principles of Arapahoe County, Prosper is located along the Interstate 70 (I-70) corridor adjacent to the existing Watkins community. Prosper is located within the I-70 Tier One Planning Reserve area that contemplates urban growth in the corridor. Market feasibility studies prepared by the County estimates that urban growth will initially occur in the western portion of the I-70 corridor in the area defined as Planning Reserve Tier One.

The Prosper property is located south of the existing Watkins interchange and bisected by Watkins Road. Both of these transportation facilities provide regional and primary access to the community.

**“Adequate Public Facilities and Services”** *(Section II, page 20)*

Public and community facilities for Prosper will include water, wastewater, fire protection, police protection, parks and other utilities.

A comprehensive water and waste water plan has been prepared for Prosper (see regional water and wastewater plan). This plan includes utilizing a combination of ground water, renewable surface water and recycled water.

Prosper is located in the Bennett Fire Protection District, Arapahoe County Law Enforcement Authority, Arapahoe County Library District, Bennett and Aurora School Districts. Approximately 3,930 acres of the Prosper property is located within the Bennett School District. The southwest portion of the property that is approximately 1,200 acres is located within the Aurora School District. Community Metropolitan Districts will also be utilized to finance, operate and maintain the infrastructure and open space within Prosper.

A comprehensive parks and open space system has been planned for Prosper. This plan includes a community park and approximately eight (8) neighborhood parks. These parks will be connected by a central open space and trail system.

Prosper is proposed to include one (1) high school and five (5) kindergarten through eighth grade school sites. These school sites are proposed as shared school park sites that encourage the efficient use of facilities.

**“Safe, Functional and Attractive Neighborhoods”** *(Section II, page 20)*

Prosper is comprised of several planning areas that upon development will define neighborhoods. A neighborhood may be comprised of one planning area or multiple planning areas.

The planning areas are to be configured within the context of a modified road grid and central open space system. This master plan configuration reinforces community connectivity that provides an interconnected system of pedestrian friendly streets and community trails.

Each neighborhood includes a community focal point such as a neighborhood retail center, park and/or school site. These focal points are strategically located to provide direct and convenient access to residents.

A diversity of housing types for each neighborhood is proposed. This diversity of housing types accommodates a multi-generational and diverse income population.

**“High Quality Employment”** *(Section II, page 22)*

Prosper is designed as a regional commerce and employment center. The strategic location of Prosper to Denver International Airport, Front Range Airport and the I-70 corridor provides a unique opportunity to establish an economic generator for the corridor and the eastern Arapahoe County region.

Land uses are incorporated into the master plan that provide for regional, community and neighborhood commercial retail uses. Areas designated for mixed use and employment will accommodate a variety of office, corporate campus, research and development uses. The employment center is located adjacent to I-70 providing maximum visibility and convenient access.

**“Transportation Choices and Mobility”** *(Section II, page 22)*

A comprehensive transportation plan has been prepared for Prosper that is consistent with the Arapahoe County 2035 Transportation Plan. Consistent with the Arapahoe County 2035 Transportation Plan, Prosper will provide regional north/south and east west connections. Watkins Road will be improved to serve as a primary north/south connection for the region and improved East 6<sup>th</sup> Avenue will serve as a primary east/west connection.

The master plan has also been configured to reinforce multi-modal transportation alternatives. Neighborhoods have been located within a quarter mile of community focal points such as schools and neighborhood centers. This quarter mile proximity will encourage walking, bicycling and the use of mass transit when it becomes available.

Employment centers, mixed use areas and neighborhoods have also been located along the central open space and trail system. This comprehensive trail system will provide alternatives for residents to commute to work and school.

The trail system is also designed to serve as a regional trail connection for Arapahoe and Adams County. Box Elder Creek and Coyote Run drainage corridors are designed as regional trail linkages.

**“Resource Conservation and Environmental Quality”** *(Section 11, page 22)*

Prosper is configured utilizing a master framework plan that is based on clustering. This clustered framework plan allows large contiguous areas of open space and natural drainage ways to be preserved.

These preserved open space areas will continue to be utilized for agriculture, recreation, and open space. The Box Elder Creek and Coyote Run corridors will be preserved for natural drainage and wildlife habitat.

Prosper will also be designed and implemented as a “Smart Energy” and water wise community. Design and construction principles will be incorporated to ensure that site elements, building and landscape components achieve water conservation, air quality and health standards.

**“Maintain Rural Character”** *(Section 11, page 24)*

Prosper is master planned with a distinctive vision that will reinforce a small town character and provide enduring value for the region. Maintaining the character includes preserving large contiguous areas of open space and incorporating a set of design principles that will reinforce a small town community and ethic.

Large contiguous open space areas are located along the perimeter of the community providing a predominantly undeveloped edge between Prosper and the adjacent properties. This extensive open space buffer will serve as a transition between Prosper and the adjacent rural communities and farms. A minimum of 80% of the buffer shall remain as open space.

Other large contiguous open space areas include the Coyote Run and the Box Elder Creek corridor. These drainage corridors along with the associated tributaries will be preserved as open space.

**“Balanced Expenditures and Revenues”** *(Section 11, page 24)*

A comprehensive fiscal impact report has been prepared for Prosper that outlines and evaluates the impacts to the local economy and community services. The employment, tax revenue and development fees generated by Prosper will result in a positive and balanced approach with respect to expenditures and revenues.

Prosper will also include eight metropolitan districts. These districts will be utilized to finance, maintain and operate required infrastructure projects related to water, sewer, roads and storm drainage. Parks and open space improvements will also be financed and maintained utilizing the metropolitan districts.

## **g. Intergovernmental Agreements**

Prosper will be subject to applicable state and local Intergovernmental Agreements that are in effect at the time of this application unless specified otherwise in a development agreement.

- Prosper is proposed to include eight (8) metropolitan districts. Through one (1) or more Intergovernmental Agreements the Districts will coordinate the planning, design, acquisition, financing construction and operations and maintenance of road and transportation

improvements, water, sanitary sewer and storm drainage improvements, park and recreation improvements, and mosquito control services. Streets designed and constructed in compliance with Arapahoe County Engineering standards may be eligible for County road maintenance.

## **h. Compliance with County Land Development Codes & Design Guidelines**

Prosper shall be in compliance with applicable County Land Development Codes and Design Guidelines unless specified otherwise in this 1041 permit application, Preliminary Development Plan, Final Development Plans or Development Agreement.

### **Comprehensive Plan Compliance**

As outlined in Section 3f of this application, the Prosper project is located within the Tier One Planning Reserve designation. This designation contemplates future growth and development projects.

### **Preliminary Development Plan Compliance**

The Prosper Preliminary Development Plan outlines permitted land uses for each respective planning area. Development standards including permitted density, building setbacks and building height are set forth within the Prosper Preliminary Development Plan.

Residential design standards and guidelines are included within the Prosper Preliminary Development Plan. These standards and guidelines address planning and design elements related to site planning, architecture, landscape architecture, screening and signage.

Development within Prosper, unless specified otherwise, shall be in compliance with the approved Preliminary Master Development Plan that is to be created for each respective area or phase.

### **Arapahoe County Transportation Plan Compliance**

A transportation plan and analysis has been prepared for Prosper. The Prosper transportation plan is in compliance with the major arterial street requirements outlined in the Arapahoe County 2035 Transportation Plan. Major arterial connections including Watkins Road and East 6<sup>th</sup> Avenue have been incorporated as prescribed in the 2035 Transportation Plan. The Prosper transportation plan is included in section 18 of this application and has been submitted under separate cover at the request of Arapahoe County Department of Public Works and Development.

### **Arapahoe County Open Space Plan Compliance**

A comprehensive park, trails and open space plan has been prepared for Prosper. This master plan is included in Section 3 of this application. The master plan includes an extensive regional and community trails network that connect to neighborhoods, mixed use centers, passive open space areas and a central park system including community and neighborhood parks.

Existing drainage corridors including the Box Elder Creek and Coyote Run have been preserved as trail corridors, active open space and passive open space corridors as prescribed on the Arapahoe County Open Space Plan. Regional trail connections are to be provided along the Box Elder Creek corridor as proposed in the County open space plan.

## **i. Land Use Plan**

Consistent with the directives outlined above, Prosper includes a master plan that is based on maintaining the natural integrity of the existing drainage corridors (green infrastructure) and preserving

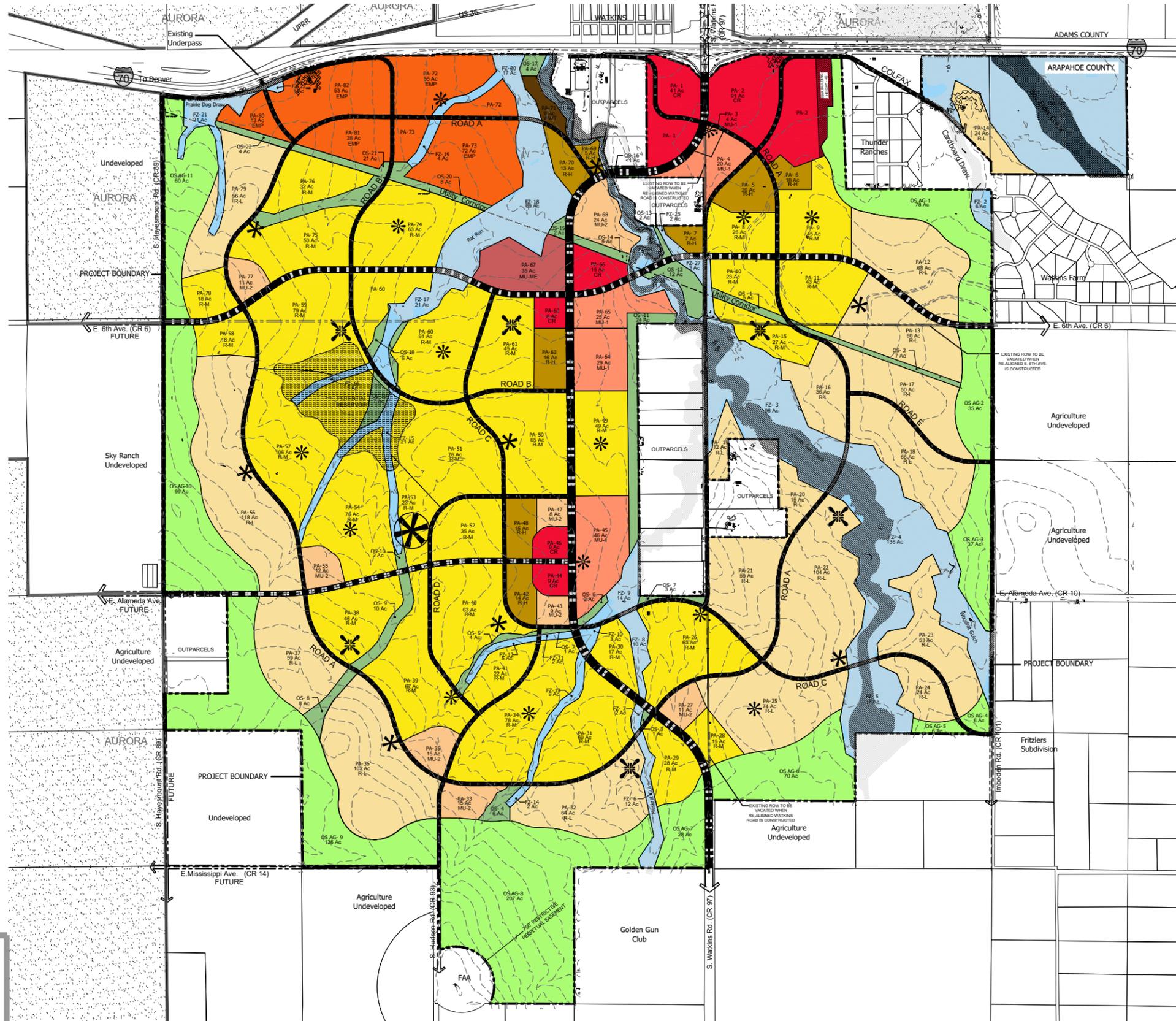
large contiguous areas of open space. A large component of the plan includes a large contiguous open space area along the perimeter of the community that will continue to be utilized for agriculture, preservation and recreation. This expansive open area and edge reinforce the character and will further differentiate Prosper from typical suburban development.

The land use plan includes providing key open space and trails linkages. As illustrated on the Full Build Out Plan (see Exhibit 3.e.1), the intent is to preserve and enhance the Box Elder Creek corridor as proposed in the Arapahoe County Open Space Plan. The Coyote Run corridor and associated tributaries are also to be preserved. These drainage systems will serve as wildlife corridors, regional and community trails connections.

Prosper is designed to include a comprehensive circulation system that is comprised of a hierarchy of street classifications and key connections. Primary streets such as Watkins Road and East 6<sup>th</sup> Avenue have been located and aligned to serve as regional and community transportation connections as outlined in the Arapahoe County 2035 Transportation Plan. As illustrated on the enclosed land use plan, Watkins Road has been realigned to minimize impacts on the Coyote Creek corridor and to avoid the 100 year flood plain. This realignment also preserves the rural character associated with the existing residential outparcels located along Watkins Road. Secondary and tertiary streets are located and aligned to reinforce a dispersed transportation network that will provide motorists north, south, east and west access alternatives. This dispersed network will further minimize impacts on major arterials. Streets at Prosper will be designed to efficiently transport motorists while providing safe and convenient connections for pedestrians.

# PROSPER

PARCELS OF LAND SITUATED IN SECTIONS 5, 6, 7 & 18, T.4S., R.64W.,  
AND SECTIONS 1, 2, 11, 12, 13, 14 & 24, T.4S., R.65W., OF THE 6TH P.M.  
COUNTY OF ARAPAHOE, STATE OF COLORADO  
ARAPAHOE COUNTY 1041 PERMIT  
EXHIBIT 3-e-1 -FULL BUILD OUT



## LEGEND

### RIGHTS-OF-WAY

- Major Arterial
- Minor Arterial
- Boulevard
- Connector Road

### SCHOOLS & PARKS

- School / Park
- Community Park
- Neighborhood Park
- Pocket Park

### WATERWAYS

- FEMA 100 Year Floodplain
- FEMA Floodway
- Potential Reservoir

### Land Use

Abbr.	Land Use
CR	Commercial/Retail
MU-1	Mixed Use Commercial
MU-2	Mixed Use Residential
MU-ME	Mixed Use (Medical / Educational Campus)
EMP	Employment (Light Industrial/Flex/Office)
Residential	
R-L	Low Density Residential
R-M	Medium Density Residential
R-H	High Density Residential
WWT	Waste Water Treatment
FZ	F-Zone (Floodplain)
OS	Open Space
OS-AG	Open Space - Agricultural

Land Use Districts	Aces	% of Total	Building Square Feet	DU's
Commercial/Retail	173	3.4%	2,000,000	
Mixed Use -1	124	2.4%	1,500,000	400
Mixed Use -2	105	2.0%	500,000	900
Mixed Use (Medical / Educational)	35	0.7%	500,000	
Employment (Light Industrial/Flex/Office)	221	4.3%	3,500,000	
Residential				
Low Density Residential	1,044	20.4%		1,500
Medium Density Residential	1,452	28.3%		5,100
High Density Residential	100	1.9%		1,100
Waste Water Treatment Plant	9	0.2%		
F-Zone	695	13.5%		
Open Space	144	2.8%		
Open Space - Agricultural	762	14.9%		
ROW	266	5.2%		
<b>Total</b>	<b>5,130</b>	<b>100.0%</b>	<b>8,000,000</b>	<b>9,000</b>

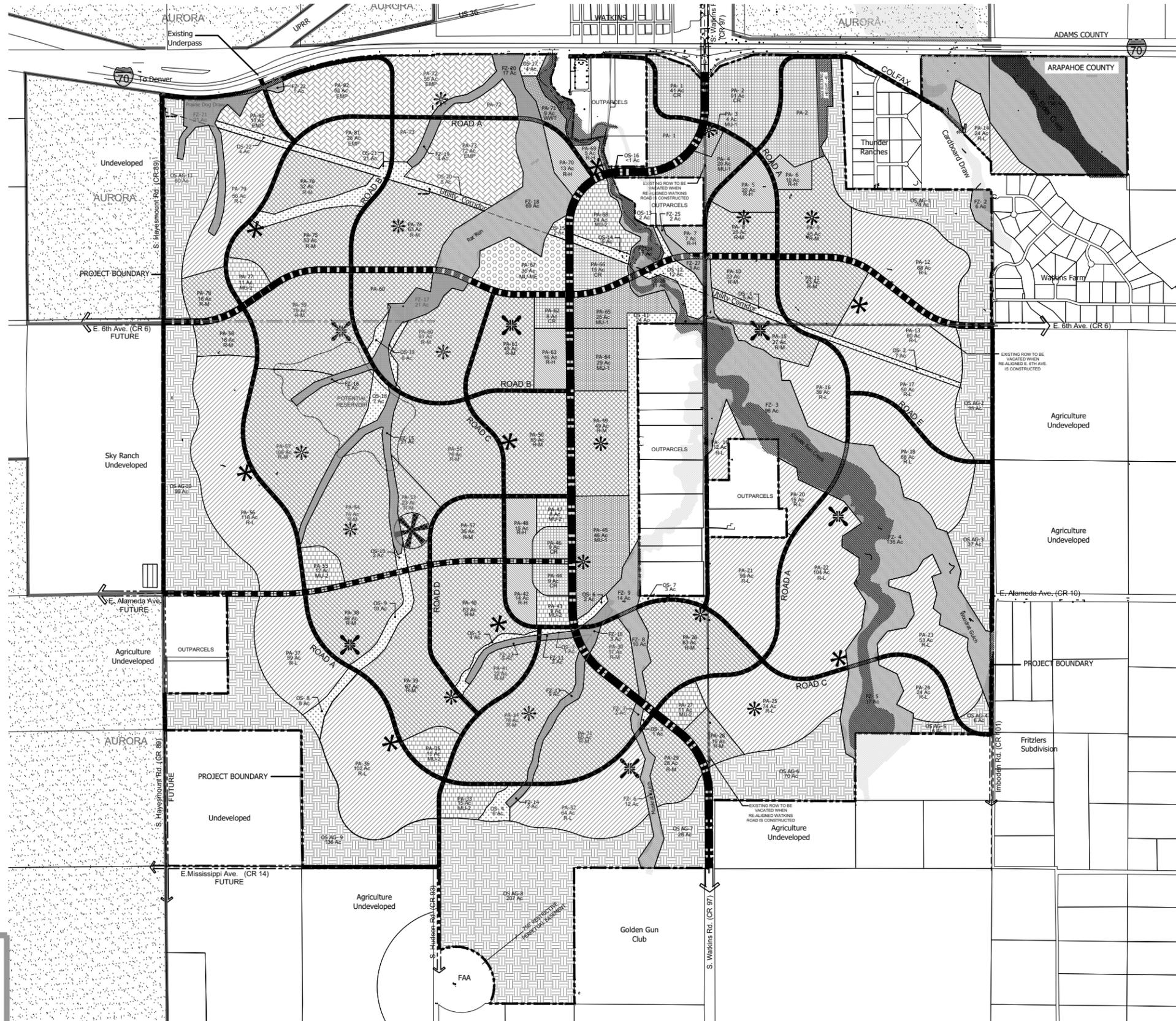
Scale:

Date: JUNE 4, 2012

Revision Date:	DATE
JULY 9, 2013	FEBRUARY 7, 2014
JUNE 20, 2014	OCTOBER 20, 2014

# PROSPER

PARCELS OF LAND SITUATED IN SECTIONS 5, 6, 7 & 18, T.4S., R.64W.,  
AND SECTIONS 1, 2, 11, 12, 13, 14 & 24, T.4S., R.65W., OF THE 6TH P.M.  
COUNTY OF ARAPAHOE, STATE OF COLORADO  
ARAPAHOE COUNTY 1041 PERMIT  
EXHIBIT 3-e-4 -FULL BUILD OUT



## LEGEND

### RIGHTS-OF-WAY

- Major Arterial
- Minor Arterial
- Boulevard
- Connector Road

### SCHOOLS & PARKS

- School / Park
- Community Park
- Neighborhood Park
- Pocket Park

### WATERWAYS

- FEMA 100 Year Floodplain
- FEMA Floodway
- Potential Reservoir

### Land Use

Abbr.	Land Use
CR	Commercial/Retail
MU-1	Mixed Use Commercial
MU-2	Mixed Use Residential
MU-ME	Mixed Use (Medical / Educational Campus)
EMP	Employment (Light Industrial/Flex/Office)
	Residential
R-L	Low Density Residential
R-M	Medium Density Residential
R-H	High Density Residential
WWT	Waste Water Treatment
FZ	F-Zone (Floodplain)
OS	Open Space
OS-AG	Open Space - Agricultural

Land Use Districts	Acres	% of Total	Building Square Feet	DU's
Commercial/Retail	173	3.4%	2,000,000	
Mixed Use - 1	124	2.4%	1,500,000	400
Mixed Use - 2	105	2.0%	500,000	900
Mixed Use (Medical / Educational)	35	0.7%	500,000	
Employment (Light Industrial/Flex/Office)	221	4.3%	3,500,000	
Residential				
Low Density Residential	1,044	20.4%		1,500
Medium Density Residential	1,452	28.3%		5,100
High Density Residential	100	1.9%		1,100
Waste Water Treatment Plant	9	0.2%		
F-Zone	695	13.5%		
Open Space	144	2.8%		
Open Space - Agricultural	762	14.9%		
ROW	266	5.2%		
<b>Total</b>	<b>5,130</b>	<b>100.0%</b>	<b>8,000,000</b>	<b>9,000</b>

Scale: 1"=1000'

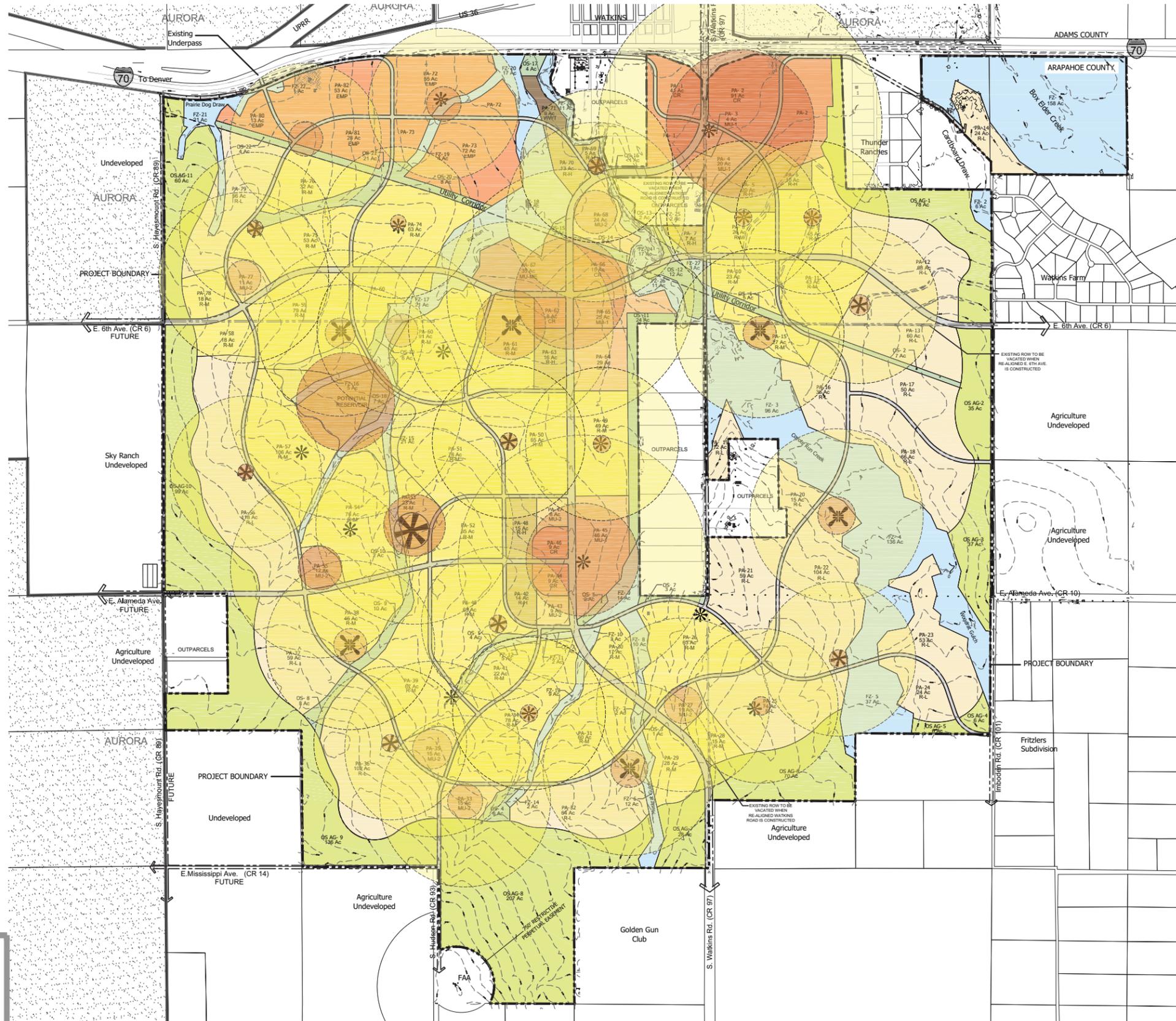
Date: JUNE 4, 2012

Revision Date:	DATE
JULY 9, 2013	OCTOBER 19, 2012
JUNE 20, 2014	FEBRUARY 7, 2014
	OCTOBER 20, 2014

# PROSPER

PARCELS OF LAND SITUATED IN SECTIONS 5, 6, 7 & 18, T.4S., R.64W.,  
AND SECTIONS 1, 2, 11, 12, 13, 14 & 24, T.4S., R.65W., OF THE 6TH P.M.  
COUNTY OF ARAPAHOE, STATE OF COLORADO  
ARAPAHOE COUNTY 1041 PERMIT

## EXHIBIT 3-e-2 COMMUNITY FOCAL POINTS

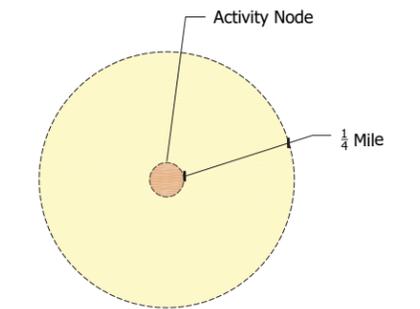


### LEGEND

#### SCHOOLS & PARKS

- School / Park
- Community Park
- Neighborhood Park
- Pocket Park

Potential Reservoir



### NOTE:

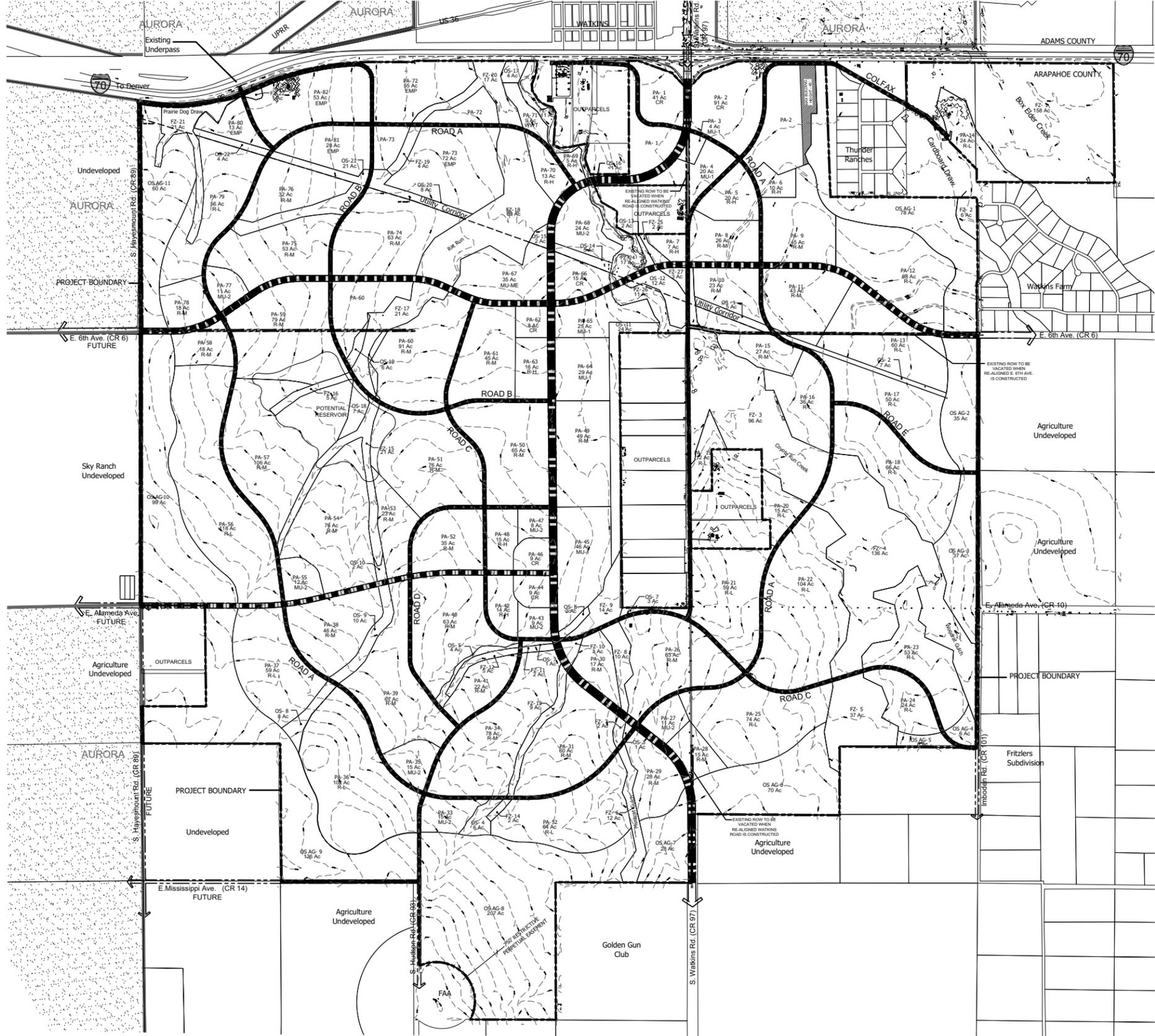
1. ACTIVITY NODES (SCHOOLS, PARKS, COMMERCIAL, MIXED USE) LOCATIONS ARE CONCEPTUAL AND SUBJECT TO CHANGE. FINAL LOCATIONS ARE TO BE DETERMINED AT THE TIME OF FINAL DEVELOPMENT PLAN AND/OR FINAL PLAT



Scale:	
Date: JUNE 4, 2012	
Revision Date:	OCTOBER 19, 2012
JULY 9, 2013	FEBRUARY 7, 2014
JUNE 20, 2014	OCTOBER 20, 2014
18 OF 45	

# PROSPER

PARCELS OF LAND SITUATED IN SECTIONS 5, 6, 7 & 18, T.4S., R.64W.,  
AND SECTIONS 1, 2, 11, 12, 13, 14 & 24, T.4S., R.65W., OF THE 6TH P.M.  
COUNTY OF ARAPAHOE, STATE OF COLORADO  
ARAPAHOE COUNTY 1041 PERMIT  
EXHIBIT 3-e-3 CONNECTIVITY PLAN



**LEGEND**

**RIGHTS-OF-WAY**

- ▬ Major Arterial
- ▬ Minor Arterial
- ▬ Boulevard
- ▬ Connector Road

**VOGEL & ASSOCIATES**  
475 W. 12th Avenue - Suite E  
Denver, Colorado 80204-3688  
(303) 893-4288

Scale in Feet

Scale:	
Date: JUNE 4, 2012	
Revision Date:	OCTOBER 19, 2012
	JULY 9, 2013
	FEBRUARY 7, 2014
	JUNE 20, 2014
	OCTOBER 20, 2014
19 OF 45	

## j. Phasing Plan

Prosper is estimated to be implemented over a 30 year period. Subareas, neighborhoods and associated infrastructure will be developed in multiple phases. A metropolitan district service plan has been prepared for Prosper which also includes the estimated number of phases that are to be implemented during the 30 year period.

The initial phase of the project includes a comprehensive master planning effort which resulted in the preparation of both the Preliminary Development Plan and the 1041 permit application. These two submittals, as required by Arapahoe County, will follow the County's approval process. Subsequent phases will include preparing a Final Development Plan and subsequent Final Plat documents for what will become Prosper Phase I.

Construction of the project is contingent upon market conditions and is estimated to be initiated in year 2016. The first phase is projected to include residential, commercial land uses and recreational land uses. A phase I plan will be prepared and submitted as part of the Final Development Plan process. This effort will also include designing and implementing required infrastructure related streets, utilities and drainage.

The following is a preliminary schedule outlining the initial phases of the project.

<b>Action Item</b>	<b>Schedule</b>
Site Analysis and Evaluation:	2008-2011
Community Identity and Master Plan:	2010-2012
Preliminary Development Plan and 1041 Permit Approval:	2011-2015
Metropolitan District Approval:	2015
Preliminary Plat	2015
Final Development Plan and Final Plat	2015
Phase I Construction	2016

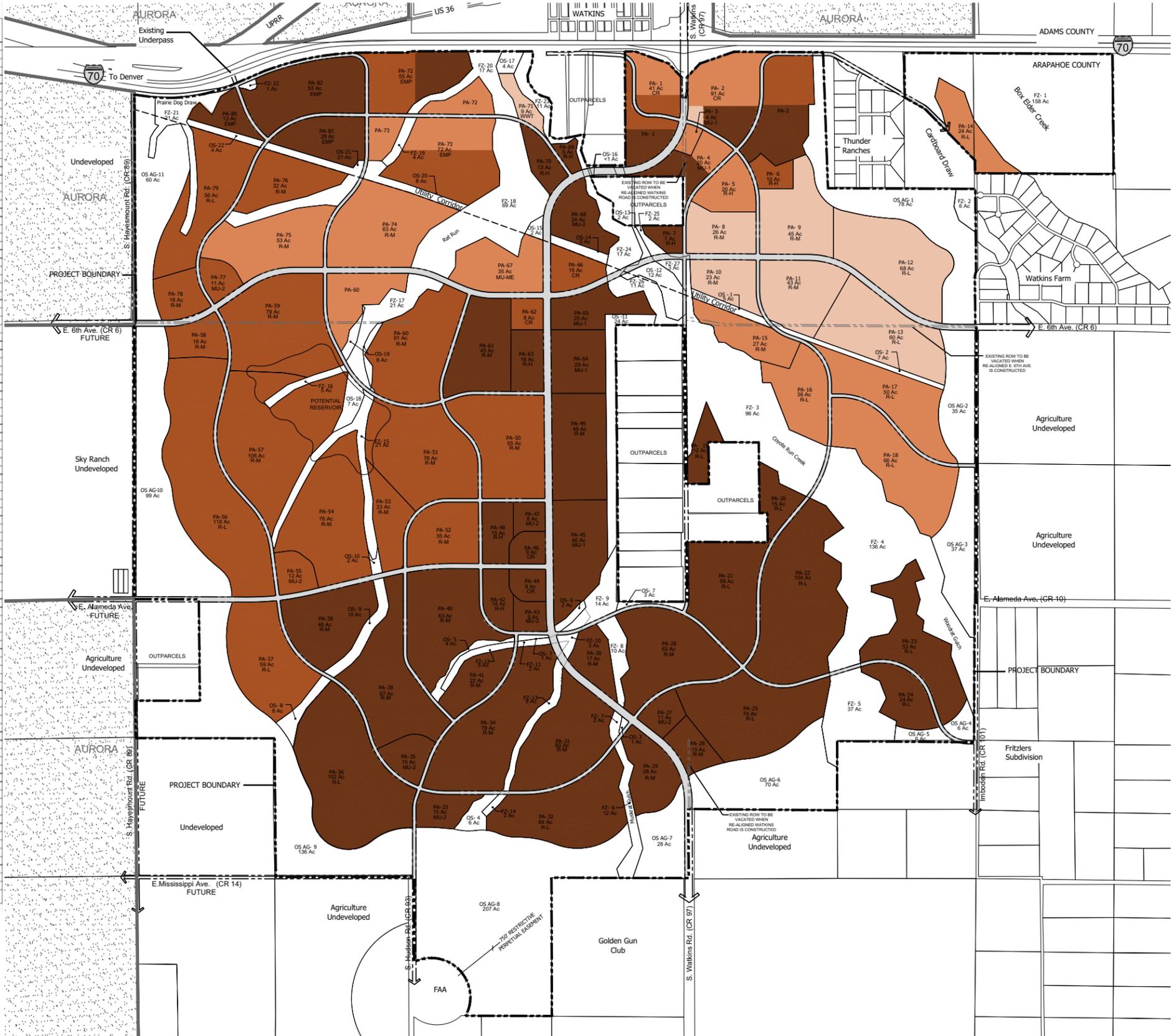
# PROSPER

PARCELS OF LAND SITUATED IN SECTIONS 5, 6, 7 & 18, T.4S., R.64W.,  
AND SECTIONS 1, 2, 11, 12, 13, 14 & 24, T.4S., R.65W., OF THE 6TH P.M.,  
COUNTY OF ARAPAHOE, STATE OF COLORADO  
ARAPAHOE COUNTY 1041 PERMIT  
EXHIBIT 3-f - PHASING PLAN

**PROSPER SUBAREAS**

SUBAREA	PLANNING AREA	LAND USE	ACRES	
1	PA-2-A	Commercial Retail	2	
	PA-8	Medium Density Residential	26	
	PA-9	Medium Density Residential	45	
	PA-10	Medium Density Residential	23	
	PA-11	Medium Density Residential	43	
	PA-12	Low Density Residential	68	
	PA-13	Low Density Residential	90	
PA-71	Waste Water Treatment	9		
Subtotal			276	
2	PA-1-A	Commercial Retail	14	
	PA-2-B	Commercial Retail	17	
	PA-3	Mixed Use-1 (Commercial)	4	
	PA-4-A	Mixed Use-1 (Commercial)	10	
	PA-5	High Density Residential	20	
	PA-14	Low Density Residential	24	
	PA-15	Medium Density Residential	27	
	PA-16	Low Density Residential	36	
	PA-17	Low Density Residential	50	
	PA-18	Low Density Residential	66	
	PA-60-A	Medium Density Residential	27	
	PA-67	Mixed Use ME (Medical/Educational)	35	
	PA-72-A	Employment	11	
	PA-73-A	Employment	9	
	PA-73-B	Employment	33	
PA-74	Medium Density Residential	63		
PA-75	Medium Density Residential	53		
Subtotal			499	
3	PA-1-B	Commercial Retail	13	
	PA-2-C	Commercial Retail	9	
	PA-6	High Density Residential	10	
	PA-17	Low Density Residential	59	
	PA-37	Low Density Residential	59	
	PA-50	Medium Density Residential	65	
	PA-51	Medium Density Residential	76	
	PA-52	Medium Density Residential	35	
	PA-53	Medium Density Residential	23	
	PA-54	Medium Density Residential	76	
	PA-55	Mixed Use-2 (Residential)	12	
	PA-56	Low Density Residential	118	
	PA-57	Medium Density Residential	106	
	PA-58	Medium Density Residential	18	
	PA-59	Medium Density Residential	79	
	PA-60-B	Medium Density Residential	64	
	PA-62	Commercial Retail	9	
	PA-68	Commercial Retail	15	
	PA-72-B	Employment	25	
	PA-73-C	Employment	28	
	PA-76	Medium Density Residential	32	
	PA-77	Mixed Use-2 (Residential)	11	
	PA-78	Medium Density Residential	18	
	PA-79	Low Density Residential	56	
	Subtotal			956
	4	PA-1-c	Commercial Retail	14
		PA-2-D	Commercial Retail	31
		PA-2-E	Commercial Retail	32
		PA-4-B	Mixed Use-1 (Commercial)	10
		PA-7	High Density Residential	7
PA-19		Low Density Residential	12	
PA-20		Low Density Residential	15	
PA-21		Low Density Residential	59	
PA-22		Low Density Residential	104	
PA-23		Low Density Residential	53	
PA-24		Low Density Residential	24	
PA-25		Low Density Residential	74	
PA-26		Medium Density Residential	63	
PA-27		Mixed Use-2 (Residential)	11	
PA-28		Medium Density Residential	15	
PA-29		Medium Density Residential	26	
PA-30		Medium Density Residential	17	
PA-31		Medium Density Residential	60	
PA-32		Low Density Residential	64	
PA-33		Mixed Use-2 (Residential)	15	
PA-34		Medium Density Residential	76	
PA-35		Mixed Use-2 (Residential)	15	
PA-36		Low Density Residential	102	
PA-38		Medium Density Residential	46	
PA-39		Medium Density Residential	67	
PA-40		Medium Density Residential	63	
PA-41		Medium Density Residential	22	
PA-42		High Density Residential	14	
PA-43		Mixed Use-2 (Residential)	9	
PA-44		Commercial Retail	9	
PA-45	Mixed Use-1 (Commercial)	46		
PA-46	Commercial Retail	9		
PA-47	Mixed Use-2 (Residential)	8		
PA-48	High Density Residential	15		
PA-49	Medium Density Residential	49		
PA-61	Medium Density Residential (H.S.)	45		
PA-63	High Density Residential	16		
PA-64	Mixed Use-1 (Commercial)	29		
PA-65	Mixed Use-1 (Commercial)	25		
PA-68	Mixed Use-2 (Residential)	24		
PA-69	High Density Residential	5		
PA-70	High Density Residential	13		
PA-72-C	Employment	21		
PA-80	Employment	13		
PA-81	Employment	26		
PA-82	Employment	53		
Subtotal			1,532	
F-Zone			695	
Open Space			144	
Open Space Agricultural			762	
R.O.W.			266	
<b>Total</b>			<b>5,130</b>	

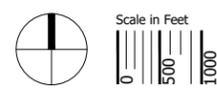
NOTE: Planning Area Suffixes (I.E 1-B,1-C) are used only for subarea purposes only.



- NOTES:**
- PHASING WILL OCCUR IN A LOGICAL AND COST EFFECTIVE MANNER BASED ON INFRASTRUCTURE EXTENSION, AVAILABILITY OF UTILITY SERVICE AND MARKET CONDITIONS. INFRASTRUCTURE REQUIREMENT FOR EACH PHASE WILL BE DETERMINED AT THE TIME OF FINAL DEVELOPMENT PLAN AND FINAL PLAT. THE PROSPER PDP SHALL PERMIT DEVELOPMENT OF PLANNING AREAS TO COMMENCE REGARDLESS OF THE BUILD OUT.
  - REFER TO THE DEVELOPMENT AGREEMENT FOR PHASING OF TRANSPORTATION IMPROVEMENTS.
  - PRIOR TO THE ISSUANCE OF THE 2.001st BUILDING PERMIT FOR RESIDENTIAL USES WITHIN PROSPER, BUILDING PERMIT APPLICATION(S) SHALL BE MADE FOR A MINIMUM OF ONE HUNDRED THOUSAND (100,000) TOTAL SQUARE FEET OF NON-RESIDENTIAL USES.

**LEGEND**

ACRES	SUBAREA	PHASING
276	SUBAREA 1	0-5 YEARS
499	SUBAREA 2	5-10 YEARS
956	SUBAREA 3	10-15 YEARS
1532	SUBAREA 4	15-30 YEARS



Scale:

Date:	JUNE 4, 2012	
Revision Date:	JULY 9, 2013	OCTOBER 19, 2012
	JUNE 20, 2014	FEBRUARY 7, 2014
		OCTOBER 20, 2014

22 OF 45



THIS PAGE INTENTIONALLY LEFT BLANK

## **k. Public Services**

### **Public Services**

In keeping with the community goals and principles, Prosper is master planned to ensure that adequate public services are provided including schools, fire and police protection.

### **School Districts**

Approximately 3,930 acres of the Prosper property is located within the Bennett School District (see Exhibit 3.g.1). The southwest portion of the property that is approximately 1,200 acres is located within the Aurora School District.

Based on the projected density at full build-out, Prosper is estimated to include approximately 5,450 students. Estimated student population will be finalized with each respective phase of development and Final Development Plan.

Prosper is master planned to include six (6) joint use school/park sites that can accommodate an elementary or kindergarten through eighth grade school. The master plan also includes one (1) high school. A planning area has been incorporated into the plan that permits other private or public educational facilities such as a community college or technological institute.

The final quantity, size and location of each school site will be determined at the time of Final Development Plan and Final Plat. Coordination of shared facilities such as parks will also be coordinated at the time of Final Development Plan and Final Plat.

### **Fire Department**

Prosper is located within the Bennett Fire Protection District. The Bennett Fire Protection District has a station located northeast of the project on Highway 36. The District has indicated that the existing district facilities have the capacity to serve the initial development phases. An additional fire substation or department site may be required with size and location being determined at the time of Final Development Plan and Final Plat (see Exhibit 3.g.2).

### **Law Enforcement**

Prosper is located within the Arapahoe County Law Enforcement Authority. Additional sheriff substation sites or facilities that may be required will be determined at the time of Final Development Plan and Final Plat.

Enclosed in Section 6 of this application is the Prosper fiscal impact report that outlines a list of related public agencies and services. This fiscal impact study outlines in detail the financial impacts with regards to estimated revenues and expenditures to the respective agencies that will serve Prosper.

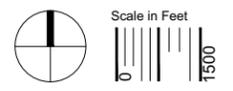
THIS PAGE INTENTIONALLY LEFT BLANK

# PROSPER

PARCELS OF LAND SITUATED IN SECTIONS 5, 6, 7 & 18, T.4S., R.64W.,  
AND SECTIONS 1, 2, 11, 12, 13, 14 & 24, T.4S., R.65W., OF THE 6TH P.M.  
COUNTY OF ARAPAHOE, STATE OF COLORADO  
ARAPAHOE COUNTY 1041 PERMIT  
EXHIBIT 3-g-1 - SCHOOL DISTRICTS



- LEGEND**
- Property Line
  - Aurora School District (Approximately 2 Schools)
  - Bennett School District (Approximately 4 Schools)
  - Potential School / Park

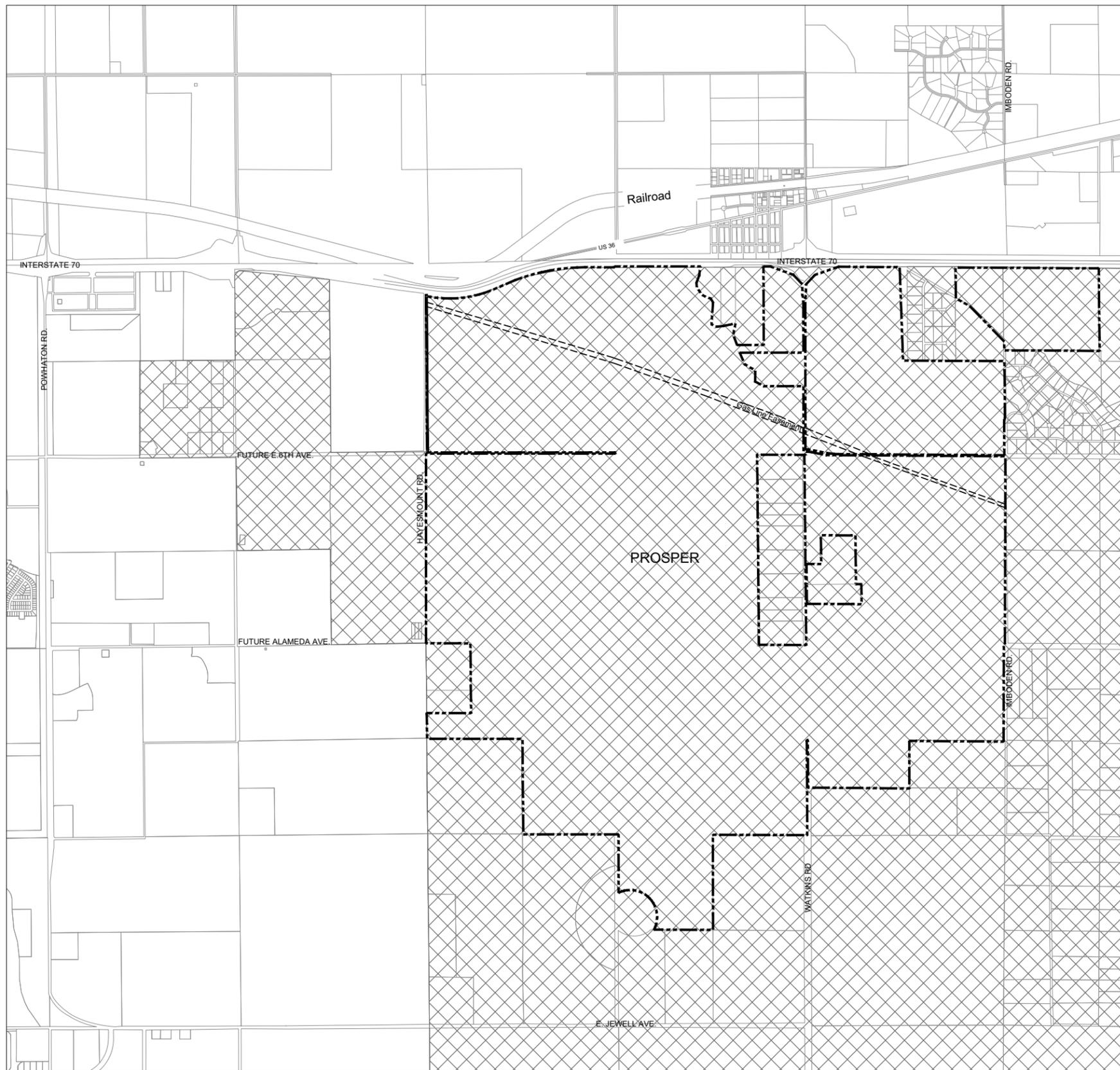


Scale:	
Date: JUNE 4, 2012	
Revision Date:	OCTOBER 19, 2012
JULY 9, 2013	FEBRUARY 7, 2014
JUNE 20, 2014	OCTOBER 20, 2014

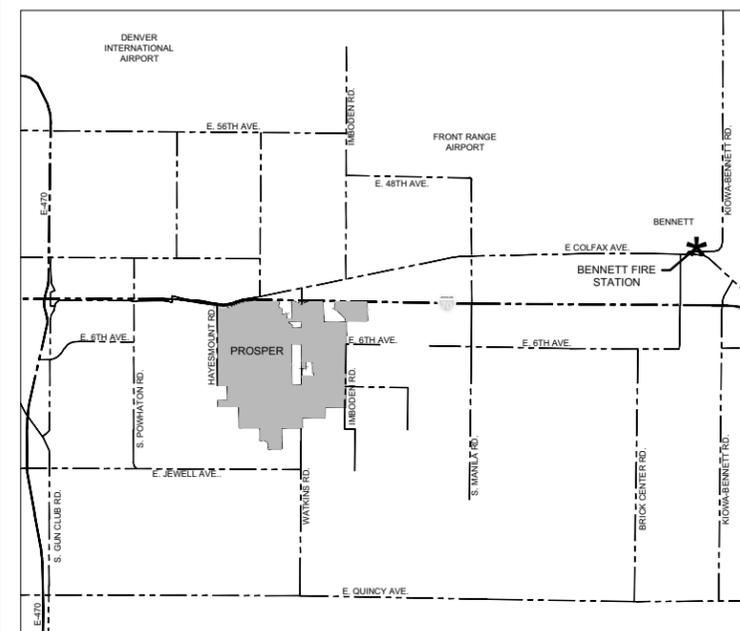


# PROSPER

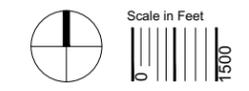
PARCELS OF LAND SITUATED IN SECTIONS 5, 6, 7 & 18, T.4S., R.64W.,  
AND SECTIONS 1, 2, 11, 12, 13, 14 & 24, T.4S., R.65W., OF THE 6TH P.M.  
COUNTY OF ARAPAHOE, STATE OF COLORADO  
ARAPAHOE COUNTY 1041 PERMIT  
EXHIBIT 3-g-2 - FIRE DISTRICT



- LEGEND**
-  Property Line
  -  Bennett Fire Protection District



**BENNETT FIRE STATION LOCATION MAP**



Scale:	
Date: JUNE 4, 2012	
Revision Date:	OCTOBER 19, 2012
	JULY 9, 2013      FEBRUARY 7, 2014
	JUNE 20, 2014      OCTOBER 20, 2014

## I. Infrastructure and Utilities

Prosper is master planned to ensure that adequate infrastructure is provided including a central water and sanitary sewer system. A regional storm drainage and water control plan has also been developed for Prosper.

In keeping with the goals and directives of Prosper, energy and natural resource conservation practices will be incorporated and applied at different scales and levels of the project. Smart energy and water wise principles will be incorporated within each respective component of community planning, architecture and landscape architecture.

The Prosper metropolitan districts outlined in Section 6 of this application may be utilized to design, finance and implement the required infrastructure improvements. Metropolitan districts have been prepared to ensure that the respective infrastructure is operated and maintained over time.

### Central Water System

The Prosper engineering process has included an extensive analysis regarding the water requirements for Prosper. While Prosper includes significant ground water rights, the intent is to develop a central renewable water supply to serve the community.

A water demand analysis for Prosper has been prepared and is included in section twelve of this application. The water demand analysis estimates that approximately 5,220 acre feet of water will be required per year (af/yr) at full build out of the community. Outlined below is a breakdown of the project water demand analysis.

<b>Project Water Demands</b>	<b>Preliminary Estimated Requirement</b>
Total Annual Indoor Demand	2,369 af/yr
Total Annual Irrigation Demand	2,788 af/yr
Reservoir Evaporation	681 af/yr
Water and Wastewater Treatment Losses	148 af/yr
<b>Total Annual Demand</b>	<b>5,986 af/yr</b>

A comprehensive water supply plan has been prepared for Prosper to ensure that a sustainable water system is implemented as required to minimize adverse impacts to the existing ground water aquifer and basin. This water supply plan utilizes a combination of Denver Basin aquifer ground water, renewable surface water; reclaimed water and lawn irrigation return flow. The following is an outline of proposed water sources and the respective estimated volume from each source that will be required to serve Prosper.

<b>Project Water Supply</b>	<b>Volume (af/yr)</b>	<b>Percentage</b>
Denver Basin Aquifer Ground Water	1,595	27
Renewable Surface Water	2,085	35
Reclaimed Wastewater	1,913	32
Lawn Irrigation Return Flow	392	7
<b>Total</b>	<b>5,986 af/yr</b>	<b>100%</b>

As outlined in the water supply table above, only 27 percent of the total estimated demand is to be satisfied with Denver Basin aquifer groundwater, with the other 73 percent of the estimated demand being supplied with renewable and recycled water. The Denver Basin Aquifer groundwater will be utilized to serve the initial phases of Prosper.

Prosper will be restricted to using only 1,595 af/yr of Denver Basin aquifer ground water. Additional water that may be required to serve development and density beyond the 1,595 af/yr shall be served by renewable surface, reclaimed or recycled water.

The groundwater shall be stored and treated on-site utilizing modern and efficient water treatment and storage facilities. Treatment and storage facilities will be phased as demand and supply is increased with the respective development of each subarea or phase. Renewable and recycled water may also be treated within Prosper utilizing modern facilities and technologically advanced practices.

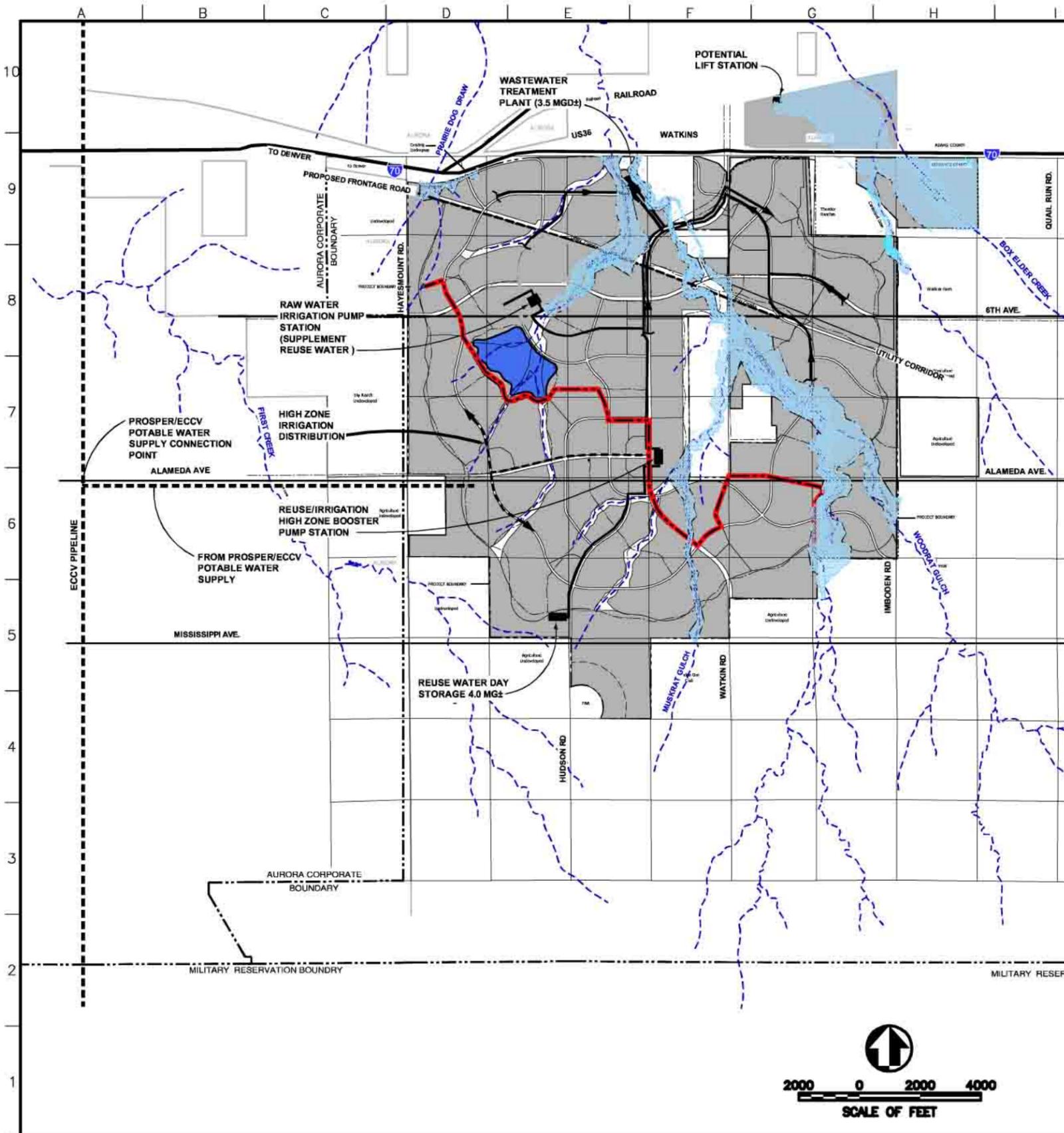
### **Waste Water**

Prosper shall design and construct waste water facilities to ensure efficient water use, recycling and the utilization of reuse technology. The community will include modern wastewater treatment facilities with biological nutrient removal (BNR) and filtration for the production of reuse water. The treatment units will include a headworks (influent screening and grit removal), secondary aerobic biological treatment (nutrient reduction), ultraviolet disinfection for discharge to creek, aerobic sludge digestion, sludge handling facilities (thickening or cake production); effluent chemical addition, flocculation, clarification and filtration (Advanced Wastewater Treatment for reuse production), and chlorine disinfection for irrigation within the development. All residential and commercial facilities will include low flow water fixtures to reduce demands.

### **Storm Water and Water Quality Drainage System**

In keeping with the goals and principles of Prosper, the Urban Drainage and Flood Control District and Arapahoe County Public Works requirements, a regional water quality and storm water management plan has been prepared for the community. Given the magnitude of Prosper and the existing network of drainage basins, a comprehensive and regional storm drainage system is to be implemented within the 5,130 acres. This storm water system utilizes the existing basins and drainage corridors to extent practicable with the intent to maintain the natural integrity of the land while reducing the expense and visual impacts associated with extensive terrain modifications and channelization.

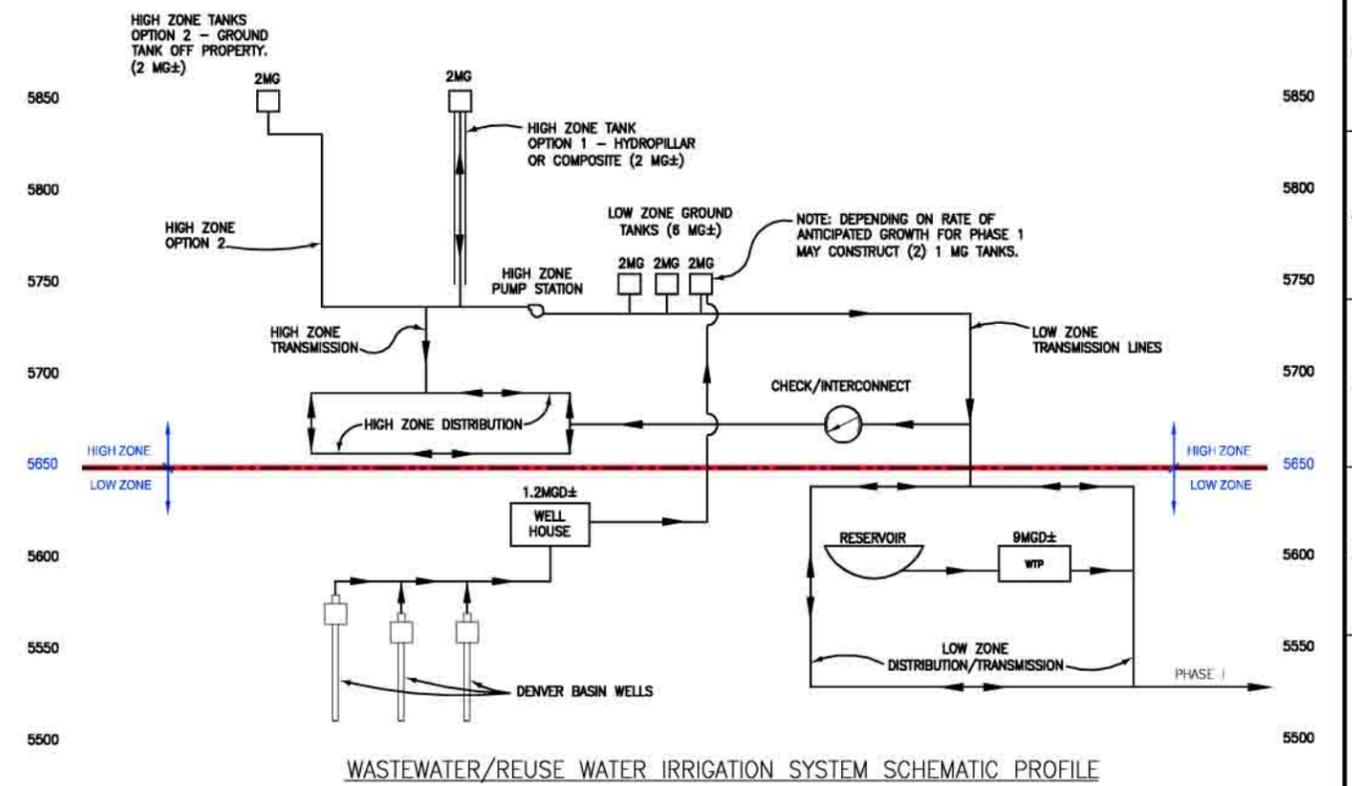
The drainage report and associated engineering details are outlined in the Section 5 of this application. Storm water and water quality improvements and facilities will be implemented with each respective phase of the project.



**LEGEND**

- FEMA FLOOD PLAIN
- PROPOSED RESERVOIR
- DEVELOPMENT PAD
- BOUNDARY LINE
- DRAINAGE WAY/CREEK/GULCH
- REUSE WATER WINTER STORAGE POTENTIAL LOCATIONS (800 AC-FT±)
- BOUNDARY LINE
- IRRIGATION REUSE WATER/RAW WATER DISTRIBUTION
- GRAVITY CONVEYANCE TRUNK SEWER
- HIGH/LOW ZONE IRRIGATION PRESSURE BOUNDARY

**PROSPER COLORADO  
CONCEPTUAL LEVEL MASTER PLAN  
WATER SYSTEM**



WASTEWATER/REUSE WATER IRRIGATION SYSTEM SCHEMATIC PROFILE

**Dewberry**  
Dewberry Engineers Inc.  
1095 S. MONACO PARKWAY  
Denver, Colorado 80224  
(303) 825-1802

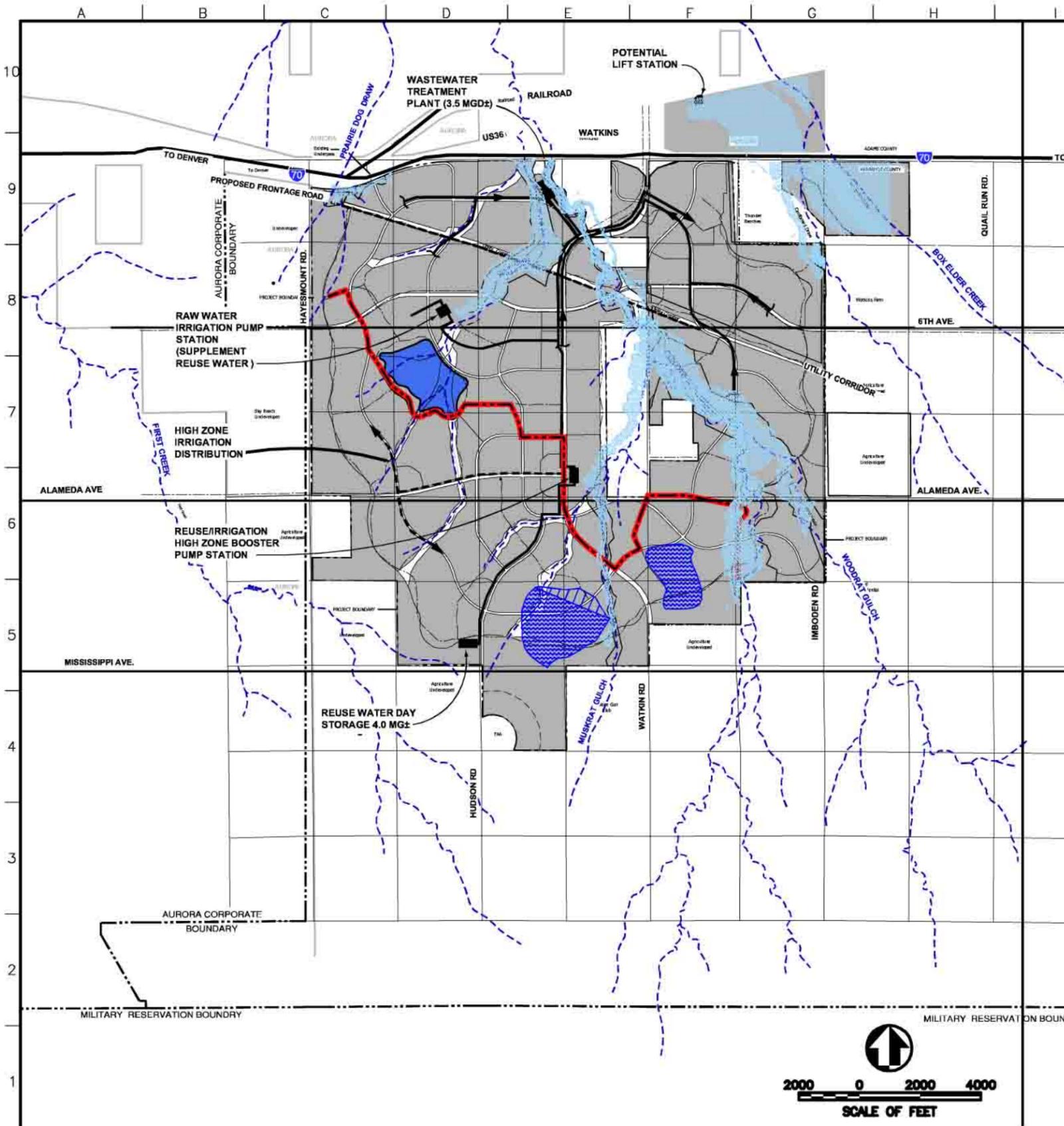
LINE IS 2 INCHES  
AT FULL SIZE  
(IF NOT 2"=SCALE ACCORDINGLY)  
DRAWING 8139C001.dwg  
DRAWN JMB  
DESIGNED PDR  
CHECKED PDR

APPROVED: \_\_\_\_\_  
PRINCIPAL  
DATE: \_\_\_\_\_

REVISIONS				
REV.	DESCRIPTION	BY	DATE	APP.
A	ISSUED FOR REVIEW	JMB	05/23/13	PDR
B	REVISIONS PER REVIEW	JMB	07/01/13	PDR

**PROSPER WASTEWATER SYSTEM  
PROSPER, COLORADO**  
  
**WASTEWATER/REUSE WATER  
IRRIGATION SYSTEM**

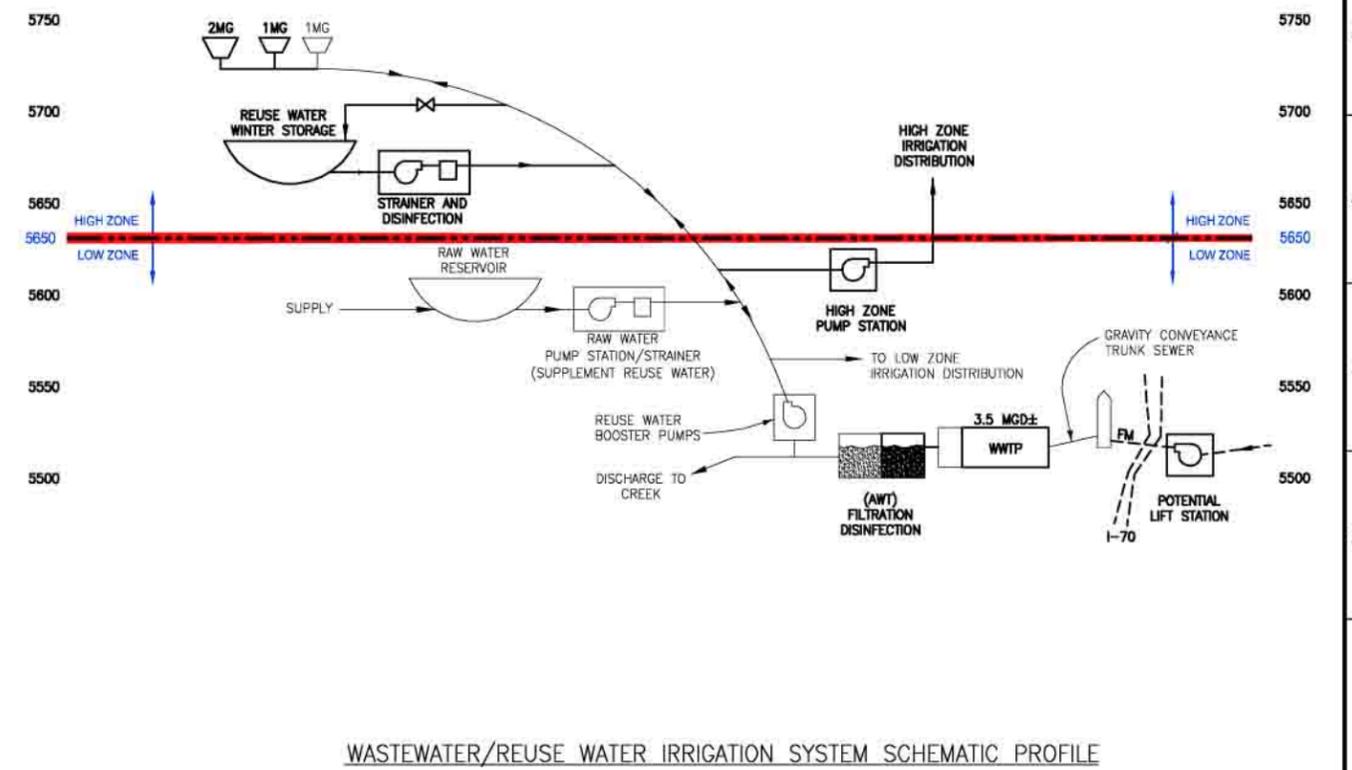
DATE: 05/23/13  
PROJECT NUMBER: 50058139  
REVISION NO. \_\_\_\_\_  
DRAWING NUMBER  
**C-1**  
SHEET NUMBER



**LEGEND**

- FEMA FLOOD PLAIN
- PROPOSED RESERVOIR
- DEVELOPMENT PAD
- BOUNDARY LINE
- DRAINAGE WAY/CREEK/GULCH
- REUSE WATER WINTER STORAGE POTENTIAL LOCATIONS (800 AC-FT±)
- BOUNDARY LINE
- IRRIGATION REUSE WATER/RAW WATER DISTRIBUTION
- GRAVITY CONVEYANCE TRUNK SEWER
- HIGH/LOW ZONE IRRIGATION PRESSURE BOUNDARY

**PROSPER COLORADO  
CONCEPTUAL LEVEL MASTER PLAN  
WASTEWATER SYSTEM**



WASTEWATER/REUSE WATER IRRIGATION SYSTEM SCHEMATIC PROFILE



**Dewberry**  
Dewberry Engineers Inc.  
1095 S. MONACO PARKWAY  
Denver, Colorado 80224  
(303) 825-1802

LINE IS 2 INCHES  
AT FULL SIZE  
(IF NOT 2"-SCALE ACCORDINGLY)

DRAWING: B139C002.dwg  
DRAWN: JMB  
DESIGNED: PDR  
CHECKED: PDR

APPROVED: \_\_\_\_\_

PRINCIPAL \_\_\_\_\_

DATE: \_\_\_\_\_

REVISIONS				
REV.	DESCRIPTION	BY	DATE	APP.
A	ISSUED FOR REVIEW	JMB	05/23/13	PDR
B	REVISIONS PER REVIEW	JMB	07/01/13	PDR

**PROSPER WASTEWATER SYSTEM  
PROSPER, COLORADO**

**WASTEWATER/REUSE WATER  
IRRIGATION SYSTEM**

DATE: 05/23/13  
PROJECT NUMBER: 50058139  
REVISION NO. \_\_\_\_\_  
DRAWING NUMBER  
**C-2**  
SHEET NUMBER

**WASTEWATER SYSTEM**

### **m. Regional Population**

Prosper is master planned to accommodate a diverse population. Land uses, transportation infrastructure, schools and open space are incorporated in the master plan as required to serve a regional and local community population.

Based on 2010 Census information, Arapahoe County includes a population of 572,003 residents. Adams County includes a population of 441,603 residents. Per the Fiscal Impact Report (see Section 6), Prosper is estimated to include a total population of approximately 22,304 and will generate approximately 24,573 jobs at build-out. It is estimated that Prosper will include approximately 8,361 households at build-out.

### **n. Developer's Financial Ability**

Prosper Farms Investments, LLC is the sole owner of the 5,130 acre parcel that is to be transformed in to the vital mixed use community of Prosper. The owner of Prosper Farms Investments, LLC have over 40 years of experience in the acquisition and development of raw land, including the design, construction, financing and operation of more than 100 real estate projects which has resulted in several multi-million dollar investments. The Prosper property was purchased for cash with assumed debt relating to only one parcel.

This extensive experience and real estate portfolio includes the acquisition, construction, and operation of commercial office, industrial, distribution and retail projects throughout the United States. Each project has required a unique approach to ensure that aesthetic, economic and environmental considerations are appropriately addressed and project goals are achieved.

The extensive experience of the owners and management team of Prosper Farms Investments, LLC includes constructing and operating sustainable and smart energy projects. This experience in conjunction with the commitment to sustainability and integrated planning remains a primary directive for each project including Prosper.

Prosper is proposed to include eight metropolitan districts. Through one or more Intergovernmental Agreements the Districts will coordinate the planning, design, acquisition, financing construction and operations and maintenance of road and transportation improvements, water, sanitary sewer and storm drainage improvements, park and recreation improvements, and mosquito control services. Streets designed and constructed with in compliance with Arapahoe County Engineering standards and requirements may be maintained by Arapahoe County.

While the Prosper Metropolitan Districts will finance the majority of infrastructure improvements, the initial development phase and associated infrastructure may require investment by Prosper. It is estimated that approximately twelve million dollars may be required to implement the first phase of improvements. Enclosed in this Section 3 of this application is a letter from US Bank outlining Prosper Farms Investments, LLC ability to finance the twelve million dollars.

### **o. Architectural and Streetscape Character**

In keeping with the goals and directives of Prosper, an architectural style has been established for the community that will reinforce the small community character of this unique place. This architectural style is timeless in appearance and will provide a solid foundation as the community evolves over time.

The Prosper architectural character incorporates styles that are reminiscent of buildings and homes that have been constructed on the eastern Colorado high plains prairie and the Front Range. These styles reinforce the small community character that has evolved over the years to be functional and adaptable to the dynamic Colorado high plains climate.

Prosper is proposed to include two architectural styles with the first being “High Plains Traditional”. The second architectural style is “High Plains Modern”. These styles will provide variation and diversity within the community while maintaining the quality, sophistication and cohesive consistency of Prosper.

### **High Plains Traditional**

The High Plains Traditional style utilizes traditional architectural building forms, massing and materials. This style includes architectural traditions such as prairie style, arts and crafts, American agrarian, classic farmhouse, American cottage and American main street. Illustrated within this section are images and examples of this style (See Exhibit 3.j.3 and 3.j.6).

### **High Plains Urban and Modern**

The “High Plains Modern” style is a progressive and modern expression of traditional, urban and prairie style architecture. This style permits diversity and variation in the use of building forms, massing and materials.

While flexibility and variation is provided within this style, architecture will be designed to integrate within the respective context with regards to form, massing, scale and height. Architecture will be required to address the public realm with respect to streets, parks and plazas.

Illustrated within this section are images and examples of this style (See Exhibit 3.j.3 and 3.j.6).

### **Prosper Streetscape Character**

Prosper is configured within a framework of interconnected streets, large contiguous open space areas and parks. A comprehensive network of streets is proposed for the commercial, mixed use and residential land use components that have been incorporated within the master plan.

Establishing a street network includes establishing the appropriate streetscape that will reinforce attractive, safe and convenient community connectivity for pedestrians, bicyclists and motorists. Streetscape classifications are proposed for Prosper to integrate within the developed context of each commercial, mixed use and residential neighborhood (See Exhibit 3.j.1 and 3.j.4). Street cross-sections for the respective classifications are to be prepared at the time of Final Development Plan.

### **Commercial and Mixed Use Streetscape Character**

The commercial and mixed use streetscape character is designed to integrate with commercial and mixed use land uses while reinforcing the small community character of Prosper. This streetscape is more urban in character and includes larger areas of hardscape, wider sidewalks and street furniture to accommodate the increased level of pedestrian activity. The commercial and mixed use streetscape is reinforced by an architectural edge, plazas and appropriately sized sidewalks when practicable. On-Street parking may be permitted in specific locations to provide convenience and reduce travel speeds.

Off-street parking area adjacent to the commercial and mixed use streetscape shall be appropriately screened with a site wall or vegetation (See Exhibit 3.j.2).

### **Medium and High Density Residential Streetscape Character**

The medium and high density streetscape character is reinforced with architecture with primary entries oriented towards the street. A detached sidewalk and landscape tree lawn is designed to provide an attractive and safe pedestrian environment (See Exhibit 3.j.5).

### **Rural Residential Streetscape Character**

The low density residential streetscape character is defined by narrower streets with potentially larger landscape areas located between the home and the street. This low density street section may include a detached sidewalk or trail to be located on one side of the street (See Exhibit 3.j.5).

THIS PAGE INTENTIONALLY LEFT BLANK

# PROSPER

PARCELS OF LAND SITUATED IN SECTIONS 5, 6, 7 & 18, T.4S., R.64W.,  
AND SECTIONS 1, 2, 11, 12, 13, 14 & 24, T.4S., R.65W., OF THE 6TH P.M.  
COUNTY OF ARAPAHOE, STATE OF COLORADO  
ARAPAHOE COUNTY 1041 PERMIT

## EXHIBIT 3-j-1 - TYPICAL COMMERCIAL MIXED USE NEIGHBORHOOD



ILLUSTRATIVE PLAN



PERSPECTIVE

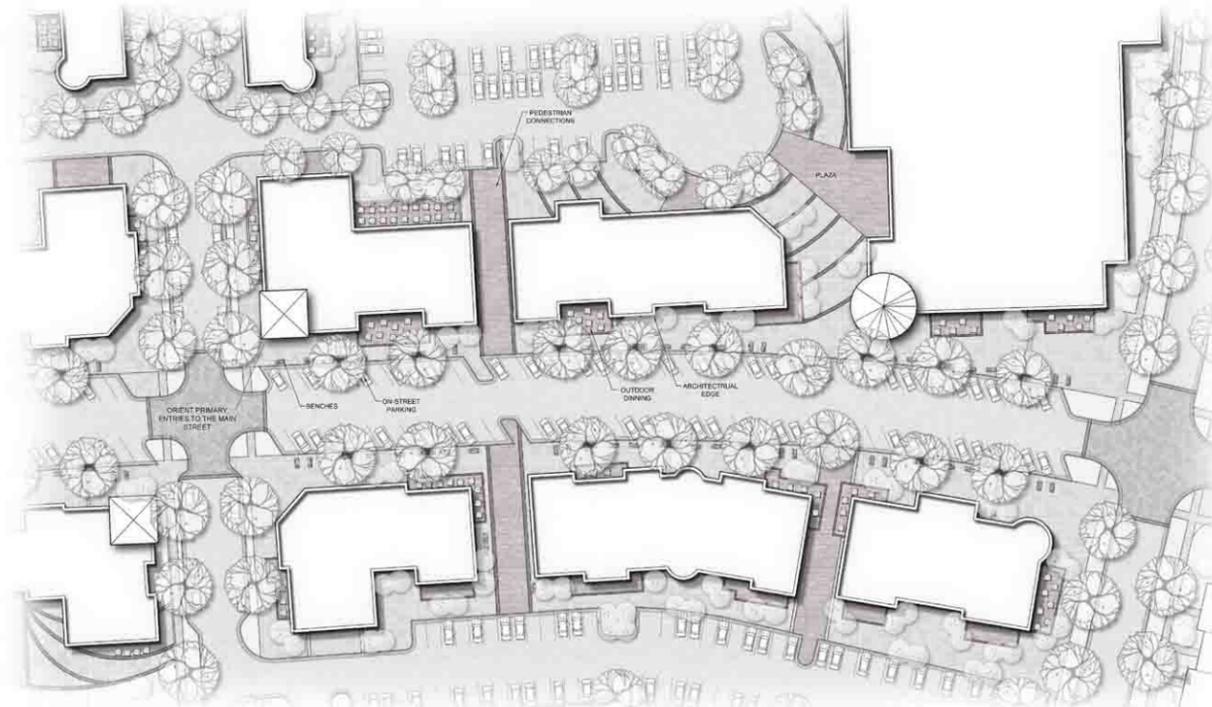
# PROSPER

PARCELS OF LAND SITUATED IN SECTIONS 5, 6, 7 & 18, T.4S., R.64W.,  
AND SECTIONS 1, 2, 11, 12, 13, 14 & 24, T.4S., R.65W., OF THE 6TH P.M.  
COUNTY OF ARAPAHOE, STATE OF COLORADO  
ARAPAHOE COUNTY 1041 PERMIT

## EXHIBIT 3-j-2 - TYPICAL COMMERCIAL MIXED USE NEIGHBORHOOD STREETScape



STREET PERSPECTIVE



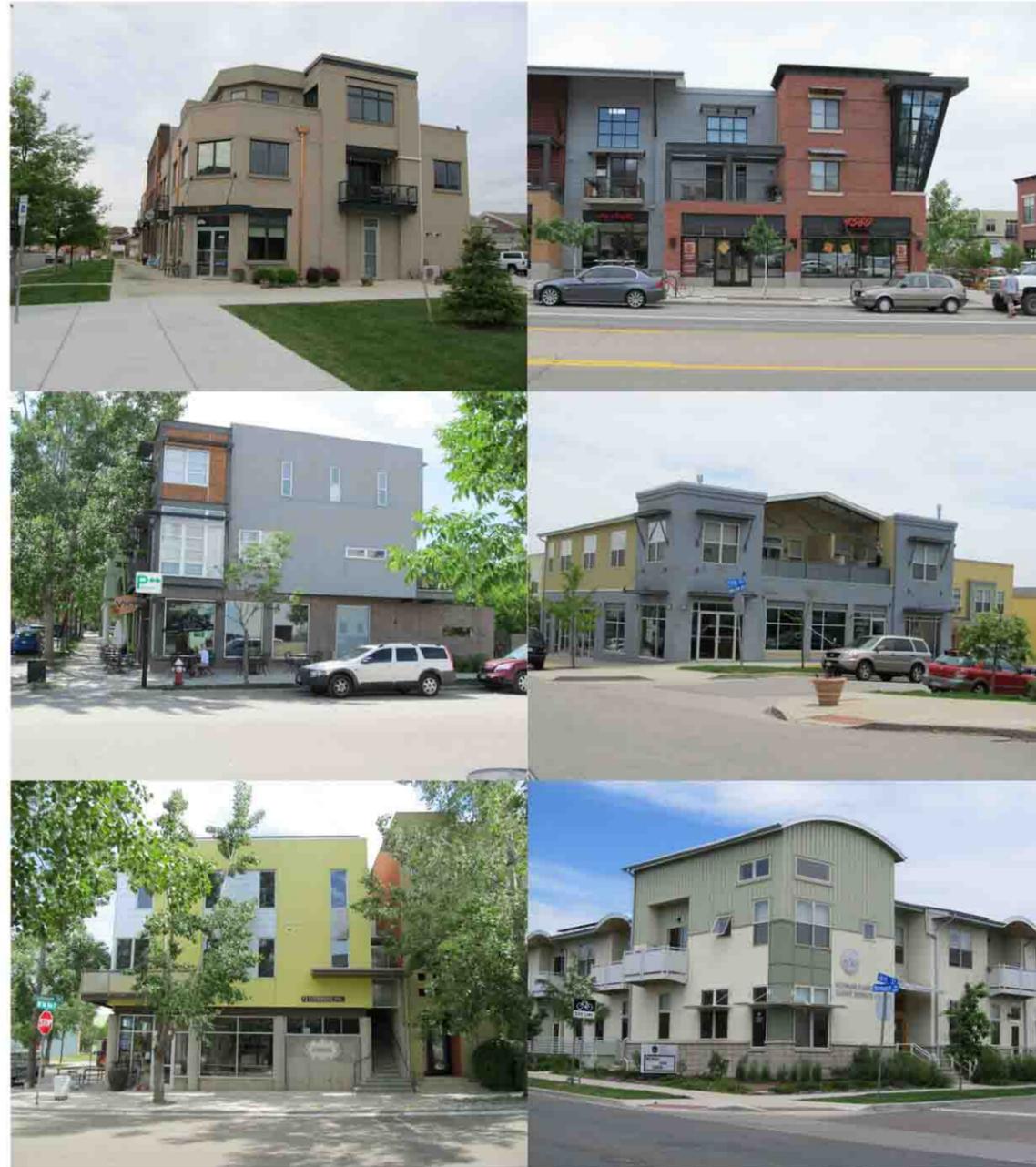
COMMERCIAL MIXED USE TYPICAL

# PROSPER

PARCELS OF LAND SITUATED IN SECTIONS 5, 6, 7 & 18, T.4S., R.64W.,  
AND SECTIONS 1, 2, 11, 12, 13, 14 & 24, T.4S., R.65W., OF THE 6TH P.M.  
COUNTY OF ARAPAHOE, STATE OF COLORADO  
ARAPAHOE COUNTY 1041 PERMIT

## EXHIBIT 3-j-3 - TYPICAL COMMERCIAL MIXED USE NEIGHBORHOOD ARCHITECTURAL IMAGERY

HIGH PLAINS URBAN MODERN



HIGH PLAINS COUNTRY TRADITIONAL



# PROSPER

PARCELS OF LAND SITUATED IN SECTIONS 5, 6, 7 & 18, T.4S., R.64W.,  
AND SECTIONS 1, 2, 11, 12, 13, 14 & 24, T.4S., R.65W., OF THE 6TH P.M.  
COUNTY OF ARAPAHOE, STATE OF COLORADO  
ARAPAHOE COUNTY 1041 PERMIT

## EXHIBIT 3-j-4 - RESIDENTIAL NEIGHBORHOOD TYPICAL



ILLUSTRATIVE SITE PLAN



PERSPECTIVE VIEW



**VOGEL & ASSOCIATES**  
475 W. 12th Avenue - Suite E  
Denver, Colorado 80204-3688  
(303) 893-4288

Scale:	
Date: JUNE 4, 2012	
Revision Date:	OCTOBER 19, 2012
	FEBRUARY 7, 2014
	JULY 9, 2013
	JUNE 20, 2014
38 OF 45	



# PROSPER

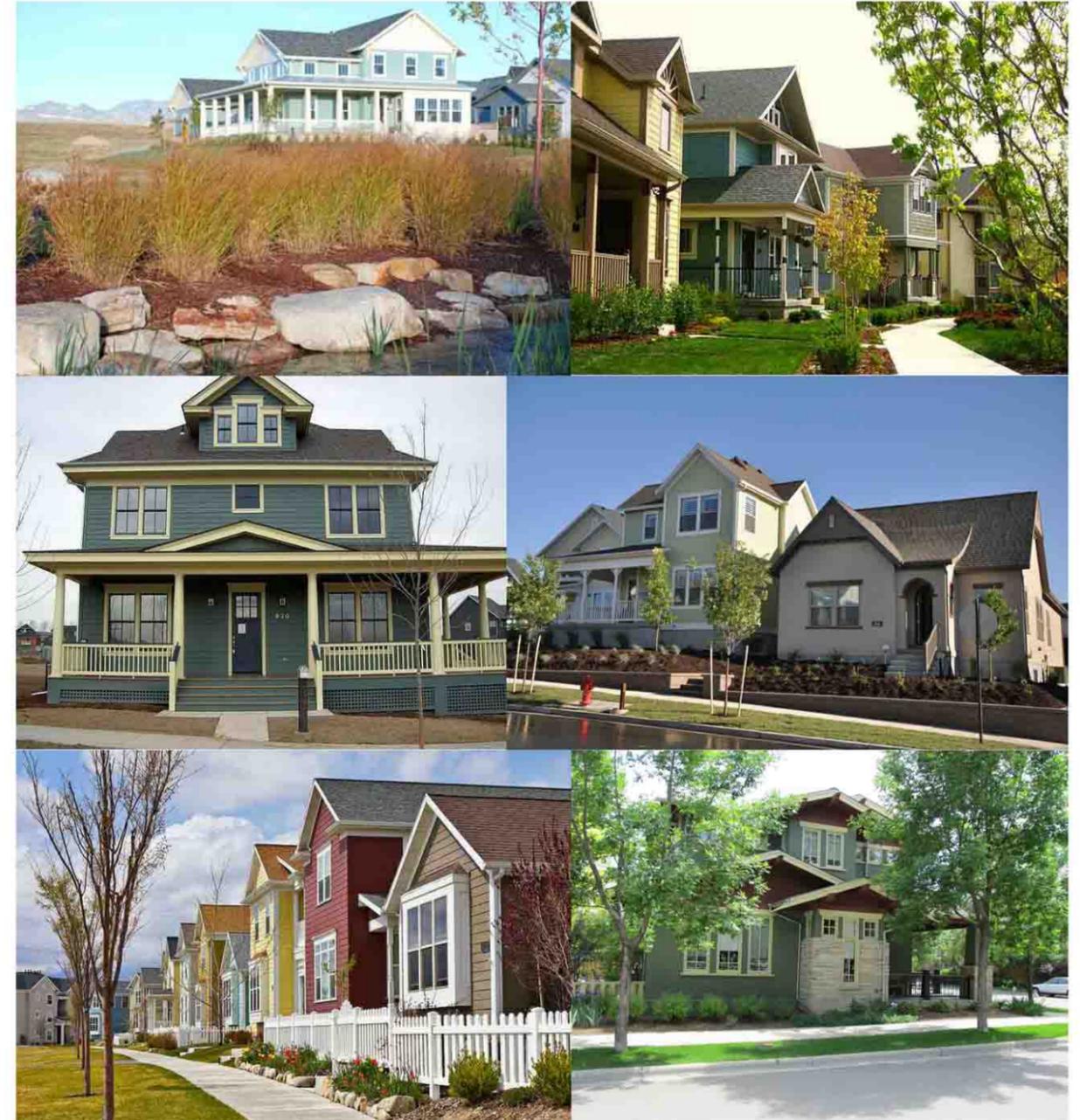
PARCELS OF LAND SITUATED IN SECTIONS 5, 6, 7 & 18, T.4S., R.64W.,  
AND SECTIONS 1, 2, 11, 12, 13, 14 & 24, T.4S., R.65W., OF THE 6TH P.M.  
COUNTY OF ARAPAHOE, STATE OF COLORADO  
ARAPAHOE COUNTY 1041 PERMIT

## EXHIBIT 3-j-6 - RESIDENTIAL NEIGHBORHOOD TYPICAL ARCHITECTURAL IMAGERY

HIGH PLAINS URBAN MODERN



HIGH PLAINS COUNTRY TRADITIONAL



## **p. Open Space Plan**

In keeping with the Prosper goals and principles, the master plan has been configured around a comprehensive open space system (see Exhibit 3-k). A cornerstone of the master plan and community includes preserving large contiguous open space areas. These expansive and contiguous open space areas equate to approximately 1,601 acres.

This comprehensive open space plan utilizes existing drainage corridors including the Box Elder Creek and Coyote Run corridors. Associated drainage corridors and tributaries have also been preserved as part of the overall plan. These corridors will continue to convey existing and proposed drainage while also serving as primary trail linkages to commercial/mixed use centers, focal points, neighborhoods, schools and community amenities. The Box Elder Creek corridor is planned to serve as a regional trail connection as proposed in the Arapahoe County open space plan.

Large contiguous areas of open space have been preserved along the perimeter of Prosper. This large contiguous perimeter open space area reinforces the small community character while providing a significant transition buffer between Prosper and the adjacent undeveloped and developed property. The large contiguous open space areas may be used for agriculture, recreation, prairie preservation and trail corridors. While the Open Space and Agriculture permits a variety of agriculture and recreation related land uses, a minimum of 80% of the area shall be maintained as open space.

Prosper includes a comprehensive park system that is planned to accommodate a variety of active and passive recreational facilities. This park system includes a hierarchy of community, neighborhood and pocket parks or community greens. Each park will be programmed and configured to serve as accessible community focal points and provide activities for a diverse population.

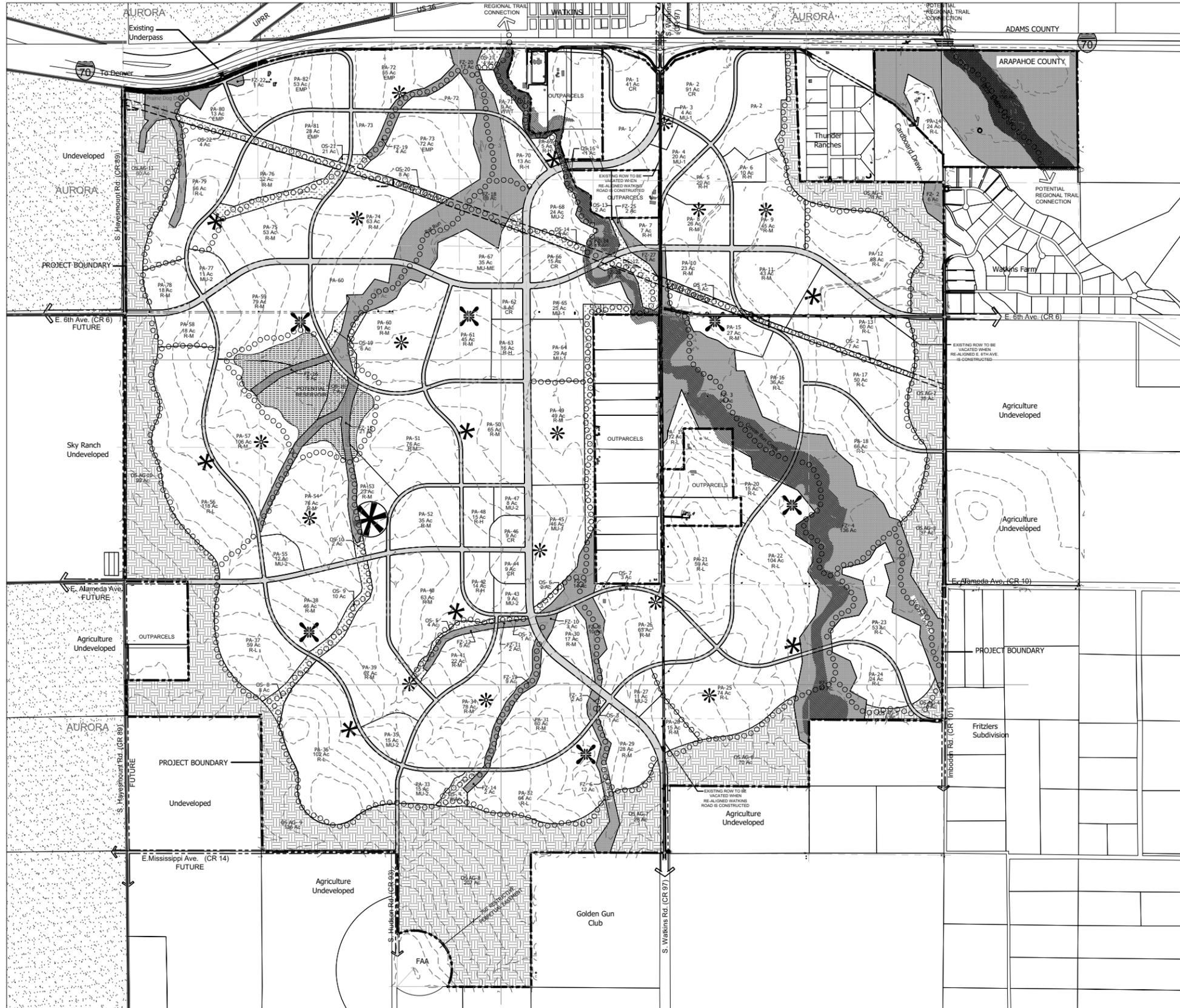
The Prosper Open Space, Parks, and Trails Plan included the following:

- 1 Community Park
- 8 Neighborhood Parks
- 14 Pocket Parks/Community Greens
- 5 Shared Parks/School Sites
- 30 miles of Trails

THIS PAGE INTENTIONALLY LEFT BLANK

# PROSPER

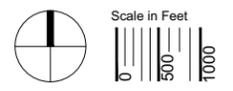
PARCELS OF LAND SITUATED IN SECTIONS 5, 6, 7 & 18, T.4S., R.64W.,  
AND SECTIONS 1, 2, 11, 12, 13, 14 & 24, T.4S., R.65W., OF THE 6TH P.M.  
COUNTY OF ARAPAHOE, STATE OF COLORADO  
ARAPAHOE COUNTY 1041 PERMIT  
EXHIBIT 3-K - OPEN SPACE, TRAILS, AND PARKS



## LEGEND

- SCHOOLS & PARKS**
- SCHOOL / PARK
  - COMMUNITY PARK
  - NEIGHBORHOOD PARK
  - POCKET PARK
  - COMMUNITY TRAILS (BIKING, HIKING, EQUESTRIAN)
  - POTENTIAL RESERVOIR
  - OPEN SPACE
  - OPEN SPACE - AGRICULTURE
  - F-ZONE - OPEN SPACE

**NOTE:**  
SCHOOLS, PARKS, TRAILS, AND RESERVOIR LOCATIONS ARE CONCEPTUAL. FINAL LOCATIONS WILL BE DETERMINED AT THE FINAL DEVELOPMENT PLAN STAGE.



Scale: 1"=1000'	
Date: JUNE 4, 2012	
Revision Date:	OCTOBER 19, 2012
	JULY 9, 2013
	FEBRUARY 7, 2014
	JUNE 20, 2014
	OCTOBER 20, 2014

## **q. Existing Conditions & Green Infrastructure Plan**

The existing green infrastructure system including existing drainages and topographic features serve as the natural framework for the master plan. Planning areas, primary circulation and open space areas have been located and configured to incorporate and maintain the natural integrity associated with the green infrastructure system.

Preserving green infrastructure and associated elements is essential to ensure that natural drainage and primary open space corridors are maintained to the extent practicable. Maintaining the natural integrity of the existing drainages will also reduce extensive grading and channelization.

The existing green infrastructure system includes the Box Elder Creek, Coyote Run and associated drainages. Existing vegetation including riparian trees and shrubs located within the drainage corridors shall also be preserved to the extent practicable.

Planning areas and primary circulation are aligned and configured to integrate with the natural terrain. Maintaining the natural integrity of the terrain will reduce grading while preserving natural drainage basins. Integrating with the natural terrain will reinforce existing view corridors to the mountains and internal drainage corridors.

THIS PAGE INTENTIONALLY LEFT BLANK

## Property Rights, Permits & Other Approvals

- Property Ownership, Land Use Approvals, & Permits
- Federal, State, and Local Authorities Correspondences
- Description of Water and Water Supply Plan



4

**PROPERTY RIGHTS, PERMITS & OTHER APPROVALS**

**PROSPER**

A new community with an optimistic spirit  
where one can flourish, thrive and succeed

## **4. Property Rights, Permits and Other Approvals**

### **a. Property Ownership**

Prosper is 5,130 acres and is owned by one entity which is Prosper Farms Investments, LLC. A title policy is enclosed within this submittal.

### **b. Land Use Approvals**

The following Arapahoe County land use and development application approvals will be required for Prosper:

1. Regulations Governing Areas and Activities of State Interest in Arapahoe County (1041) Application.
2. Preliminary Development Plan
3. Preliminary Plat
4. Final Development Plan
5. Final Plat
6. Metro District Service Plan
7. Large Land Activities and Applicable Reservoir Permits

### **c. Permits**

The following permits that may be required for the Prosper project:

1. Colorado Department of Transportation – 1601 process/permit
2. Arapahoe County Department of Public Works and Development – grading, streets, drainage, GESC
3. UDFCD/FEMA for anticipated CLOMR/LOMR
4. State of Colorado – Storm water Management Plan- Dam Safety
5. State Health – Sewage Treatment (Waste Water Utility Plan)
6. Tri-County Health
7. State Water Resources-Water Supply – Water Treatment Plant Permits and C & E Process with Arapahoe County
8. Army Corps of Engineers
9. State Engineering Department
10. SEMSWA (Prosper is to be excluded from SEMSWA)

THIS PAGE INTENTIONALLY LEFT BLANK

**PROSPER, COLORADO**  
**WATER SUPPLY PLAN REPORT**

**Prepared for**

**PROSPER FARMS INVESTMENTS, LLC**

**Prepared by**

**HRS WATER CONSULTANTS, INC.**

**04-02.1**  
**January, 2014**



# Table of Contents

EXECUTIVE SUMMARY .....	1
1.0 Introduction.....	2
2.0 Prosper Development.....	2
3.0 Water Supply Requirements .....	3
3.1 S.B. 1141 Statutes C.R.S. § 29-20-304.....	3
3.2 C.R.S. § 30-28-136 .....	4
4.0 S.B. 1141/C.R.S. § 29-20-304 Water Supply Requirements .....	4
4.1 An Estimate of the Water Supply Requirements for the Proposed Development through Build-Out Conditions.....	4
4.1.1 Average Annual Water Supply Demands .....	4
4.1.2 Maximum Day Water Supply Demands .....	8
4.2 A Description of the Physical Source of the Proposed Water Supply That Will be Used to Serve the Proposed Development .....	9
4.2.1 Denver Basin Ground Water.....	10
4.2.1.1 Prosper’s Decreed Denver Basin Ground Water.....	10
4.2.1.2 Adequacy of the Denver Basin Ground Water .....	11
4.2.2 Renewable Surface Water.....	13
4.2.2.1 Renewable Surface Water Supplies and Delivery.....	13
4.2.2.2 Adequacy of the Renewable Surface Water Supply .....	15
4.2.3 Reclaimed Waste Water.....	16
4.2.3.1 Indirect Reuse of Waste Water from the Box Elder Creek Alluvial Aquifer.....	16
4.2.3.2 Direct Reuse of Waste Water for Irrigation .....	17
4.2.3.3 Adequacy of the Reclaimed Waste Water Supply .....	18
4.2.4 Lawn Irrigation Return Flow .....	18
4.2.4.1 Quantification of the Lawn Irrigation Return Flow .....	18
4.2.4.2 Adequacy of the Lawn Irrigation Return Flow Supply.....	19
4.3 An Estimate of the Amount of Water Yield Projected from the Proposed Water Supply Under Various Hydrologic Conditions .....	20
4.3.1 Denver Basin Ground Water and Reclaimed Wastewater .....	20
4.3.2 Renewable Surface Water and Reclaimed Wastewater .....	20
4.3.3 Lawn Irrigation Return Flow .....	25
4.4 Water Conservation Measures, if any, that may be Implemented within the Development .....	25
4.4.1 Indoor Water Conservation.....	26
4.4.2 Outdoor Water Conservation .....	26
4.4.3 Waterwise Certification .....	27
4.4.4 Monitoring and Evaluation .....	27

4.5	Water Demand Management Measures, if any, that may be Implemented within the Development to Account for Hydrologic Variability .....	27
4.6	Other Information as may be Required by the Local Government .....	28
4.6.1	Prosper’s Arapahoe County 1041 Submittal.....	28
5.0	C.R.S. § 30-28-136 Water Supply Requirements .....	28
5.1	Adequacy .....	29
5.2	Non-Injury.....	29
5.2.1	Lower Arapahoe and Laramie-Fox Hills Aquifers .....	29
5.2.2	Renewable, Reclaimed, and Lawn Irrigation Return Flow Water .....	30
6.0	Conclusion .....	31
7.0	REFERENCES .....	32

### **Tables**

1. Annual Water Demands
2. Land Use and Potable Water Annual Demand at Build-out
3. Annual Potable Water Irrigation Demand at Build-out
4. Maximum Day Potable Water Demands
5. Maximum Day Non-Potable Water Demands
6. Average Annual Water Supply
7. Prosper Farms Contiguous Lands – Summary of Denver Basin Water Underlying Approximately 5,262.2 Acres
8. Lower Arapahoe Well Data
9. Laramie-Fox Hills Well Data

### **Figures**

1. Prosper Farms Investments, LLC – Watkins Area Land
2. Prosper Farms – Box Elder Creek Investigation
3. Arapahoe Aquifer Wells
4. Laramie-Fox Hills Aquifer Wells

### **Appendices**

- A. Prosper Development’s Compliance with S.B. 1141, as Codified in C.R.S. 29-20-101, et seq., and as Construed by Douglas County District Court in Case No. 11CV1437
- B. C.R.S. 29-20-103 and 29-20-301 through 29-20-305
- C. C.R.S. 30-28-136

- D. Updated Memorandum Regarding Subdivisions dated March 16, 2005
- E. Potable Max Day Demands – Electronic version available on request.
- F. Non-Potable Max Day Demands – Electronic version available on request.
- G. 11CW22 Water Court Decree
- H. Arapahoe County Water & Wastewater Authority Conditional Will Serve Letter



## **EXECUTIVE SUMMARY**

The Prosper project is expected to include approximately 9,000 dwelling units and 8,600,000 square feet of non-residential uses. This water supply plan report for Prosper Farms Investments, LLC (“Prosper”) addresses the statutory water supply plan requirements of S.B. 1141 (C.R.S. § 29-20-301, *et. seq.*) and C.R.S. § 30-28-136(h)(I) with respect to the adequacy of the proposed water supply for the Prosper project. Prosper’s build-out planning horizon is currently estimated at 30 years. This water supply plan is based on reasonable engineering and hydrogeologic parameters and procedures that are commonly accepted in water court and the water supply industry. Furthermore, the proposed Prosper water supply is customary and reasonable with respect to current Front Range water supply planning. The water supply plan describes Prosper’s: (a) annual water demands at build-out, (b) maximum per day water demands at build-out, (c) the project’s four sources of water, (d) the adequacy of the water supplies, (e) the variability of the water supplies under various hydrologic conditions, and (f) the project’s water conservation plan and demand management measures.

The project’s annual water demand is 5,986 acre-feet per year (“af/yr”). The project’s four sources of water supply are Denver Basin ground water, renewable surface water, reclaimed wastewater, and lawn irrigation return flow. Denver Basin ground water accounts for 27 percent of the total supply. Prosper has a decree for over 5,400 acre-feet (“af”) of Denver Basin ground water underlying the project. Renewable and fully reusable surface water makes up 35 percent of the total supply. Reclaimed wastewater is 32 percent of the total supply. Lawn irrigation return flow is seven percent of the total supply. Specifically, with respect to renewable and fully reusable surface water, this water supply plan proposes a water supply served by Arapahoe County Water & Wastewater Authority (“ACWWA”), although other options are also discussed and available. This water supply plan includes a conditional will-serve letter issued by ACCWA to Prosper.

## **1.0 Introduction**

This water supply plan report has been prepared on behalf of Prosper Farms Investment, LLC, (“Prosper”) by HRS Water Consultants, Inc. (“HRS”) for the Arapahoe County Public Works and Development Planning Division (“Arapahoe County”). The purpose of this report is to explain Prosper’s water supply plan and to demonstrate that it is adequate in accordance with the provisions of Colorado Senate Bill 08-1141 (“S.B. 1141”), C.R.S. § 30-28-136(h)(I), and the Colorado Division of Water Resources Subdivision Water Supply Plan Regulations. The author of this report is Mark R. Palumbo, Principal Hydrologist. The majority of the water conservation discussion in Section 4.4 was provided by Jeff Vogel of Vogel and Associates. Prosper’s water attorney, Stephen C. Larson, of Johnson and Repucci LLP, contributed to discussions concerning the proposed renewable surface water supply in Section 4.3.2, and, generally, concerning the requirements of Colorado statutes. Alan Pratt with Dewberry provided information on waste water and water treatment.

S.B. 1141 is incorporated in Colorado Revised Statutes (“C.R.S.”) § 29-20-301 through § 29-20-306. The relevant portions of Colorado Division of Water Resources water supply criteria are in C.R.S. § 30-28-136-(1)(h)(I). This report addresses these statutes with respect to Prosper’s proposed water supply plan. This report begins with a brief description of the Prosper development and then discusses the Prosper proposed water supply plan with respect to the statutes. Compliance with the specific requirements of S.B. 1141 is also summarized in Appendix A.

## **2.0 Prosper Development**

Prosper is a mixed-use residential and commercial master-planned development that includes an area of approximately 5,130 acres located in Arapahoe County, south of Interstate Highway 70, in the vicinity of Watkins. Figure 1 shows the Prosper development area. Prosper is seeking Arapahoe County zoning approval for 9,000 dwelling units and approximately 8,600,000 square feet of non-residential uses. Prosper’s build-out planning horizon is approximately 30 years.

Water and wastewater service to Prosper will be provided through central water and wastewater systems.

### **3.0 Water Supply Requirements**

#### **3.1 S.B. 1141 Statutes C.R.S. § 29-20-304**

S.B. 1141 is incorporated in C.R.S. § 29-20-101 through § 29-20-306. A copy of the relevant portions of this statute is included in Appendix B. C.R.S. § 29-20-304(1) includes the water supply requirements. The water supply plan report requirements from C.R.S. § 29-20-304(1) (a-f) are listed below.

- (a) An estimate of the water supply requirements for the proposed development through build-out conditions;
- (b) A description of the physical source of water supply that will be used to serve the proposed development;
- (c) An estimate of the amount of water yield projected from the proposed water supply under various hydrologic conditions;
- (d) Water conservation measures, if any, that may be implemented within the development;
- (e) Water demand management measures, if any, that may be implemented within the development to account for hydrologic variability; and
- (f) Such other information as may be required by the local government.

This report addresses the six S.B. 1141 requirements listed above and demonstrates pursuant to C.R.S. § 29-20-302 and 303 that Prosper's proposed water supply is adequate. With respect to requirement (f) above, Prosper has submitted water supply information to Arapahoe County in Sections 12 of its 1041 submittal. Relevant portions of that information have also been included in this report.

### **3.2 C.R.S. § 30-28-136**

A copy of C.R.S. § 30-28-136 is included as Appendix C. C.R.S. § 30-28-136(1)(h)(I) sets forth the relevant State Engineer’s referral and review requirements from county planning. A copy of the State Engineer’s Office (“SEO”) March 16, 2005 Memorandum concerning the SEO referral process is included as Appendix D. Because the current application before County Planning does not involve a “subdivision” of land pursuant to C.R.S. § 30-28-101(10)(a), the SEO has no statutory responsibility to review this land use application. If a referral to the SEO is made by the County in this *non-subdivision* proceeding, the SEO will perform a “*cursory review and provide only informal comments regarding the proposed water supply.*” See SEO Memorandum dated March 16, 2005, Appendix D. Please note that a part of the SEO’s statutory responsibility to review land use applications when a subdivision *is* involved, is to address the question of injury to other water rights. Because some of the water rights proposed in this report as the supply for Prosper have not yet been acquired, (i.e. the renewable water supplies), all of the specific decrees for operation of Prosper’s water supply system are not yet adjudicated. Only the decree for Prosper’s Denver Basin water has been adjudicated. Until all of the specific decrees are adjudicated, it is not possible or necessary to fully address the question of injury to other water rights in the present report. Nevertheless, to the extent feasible at this time, an opinion regarding the question of injury to other water rights is included in this water supply plan report, along with demonstrating the adequacy of the proposed supply.

## **4.0 S.B. 1141/C.R.S. § 29-20-304 Water Supply Requirements**

### **4.1 An Estimate of the Water Supply Requirements for the Proposed Development through Build-Out Conditions**

#### **4.1.1 Average Annual Water Supply Demands**

The annual water demands shown on Table 1 are calculated for 9,000 dwelling units and retail, commercial, medical, civic and educational development which equates to 11,847 single family equivalents (“SFE”). The total annual demand is 5,986 af/yr. Of this amount, 2,369 af/yr is

indoor demand and 2,788 af/yr is outdoor irrigation demand. The annual water supply requirements also includes 375 af/yr for reservoir evaporation for a 2,000 af South Platte River reservoir and 306 af/yr for evaporation for an 800 af irrigation reservoir at Prosper, and water and wastewater treatment plant losses. The indoor demand is based on 0.2 af/yr/SFE and the irrigation demand is also based on 0.2 af/yr/SFE. The total annual amount of water per SFE is 0.4 af/yr.

<b>Table 1</b>	
<b>Annual Water Supply Requirements</b>	
<b>Prosper Water Demands</b>	
Total Annual Indoor Demand	2,369 af/yr
Total Annual Irrigation Demand	2,788 af/yr
Reservoir Evaporation	681 af/yr
Water and Wastewater Treatment Plant Losses	148 af/yr
Total Annual Demand	<b>5,986 af/yr</b>
Total Number of SFEs	11,847
Total Dwelling Units	9,000
Indoor Demand	0.2 af/yr/SFE
Irrigation Demand	0.2 af/yr/SFE and 2.25 af/acre
<b>Total Irrigated Acreage – approximate</b>	<b>1,239 acres</b>

The 0.4 af/yr/SFE value is reasonable and adequate. As discussed above, this value includes 0.2 af/yr/SFE for indoor use and 0.2 af/yr/SFE for outdoor irrigation. The 0.2 af/yr/SFE value for indoor use and 0.2 af/yr/SFE for outdoor irrigation are supported by several references. Table 3.1 in the Arapahoe County Comprehensive Plan includes total indoor and outdoor use values that range from 0.31 af/yr/SFE to 0.67 af/yr/SFE. The 0.67 af/yr/SFE is from a 1990 *Water Resources Plan for the Arapahoe County Water Study Area*. Data from this study is now 22 years old. The 0.4 af/yr/SFE value used in this study is reasonable when compared to the 0.67 af/yr/SFE when advances in water conservation over the last 22 years are considered. Additionally, data from *Residential End Uses of Water*, (AWWA, 1999) supports the indoor demand of 0.2 af/yr/SFE value. The 2.25 af/yr/acre irrigation application rate value equates to an outdoor irrigation value of 0.2 af/yr/SFE. This value is also supported by AWWA, 1999 and the irrigation conservation measures that are discussed in Section 4.4.

Table 2 provides additional detail on the quantification of the annual potable water demand at build-out. The building square foot areas, the number of building units or students, the number of SFEs, and the annual indoor or outdoor demand is provided for each land use type.

<b>Table 2</b>						
<b>Land Use and Potable Water Annual Demand at Build-Out</b>						
<b>Land Use</b>	<b>Building Sq. Feet</b>	<b>No. of Units or Students</b>	<b>SFE</b>	<b>Indoor Demand (af/yr)</b>	<b>Outdoor Demand (af/yr)</b>	<b>Annual Demand (af/yr)</b>
Commercial/Retail	2,000,000		600	120	*	120
Mixed Use 1	1,500,000	400	1,050	210	*	210
Mix Use 2	500,000	900	925	185	*	185
Mixed Use Medical/Educational	500,000		250	50	*	50
Employment Industrial/Flex/Office	3,500,000		1,750	350	*	350
High School	220,000	<b>1,700</b>	102	20	*	20
K-8 School	380,000	<b>4,250</b>	255	51	*	51
Low Density Residential		1,500	1,500	300	300	600
Medium Density Residential		5,100	4,590	918	918	1,836
High Density Residential		1,100	825	165	*	165
<b>Totals</b>	<b>8,600,000</b>	<b>9,000 Units</b>	<b>11,847</b>	<b>2,369</b>	<b>1,218</b>	<b>3,587</b>
<b>Total</b>		<b>5,950 Students**</b>				
* Reuse or Raw Water Irrigation – See Table 3 for annual amounts.						
** Three SFEs are assigned to each 50 students.						

Irrigation with potable water is projected for rural residential, medium residential, and a portion of the park irrigation. The potable irrigation demand is 1,218 af/yr or 44 percent of the total irrigation demand of 2,788 af/yr. Table 3 quantifies annual non-potable irrigation at build-out. The non-potable irrigation demand is 1,570 af/yr, or 56 percent of the total irrigation demand. The 1,218 af/yr of potable irrigation demand from Table 2 and the 1,570 af/yr of non-potable irrigation demand from Table 3 equals the 2,788 af/yr of total irrigation demand shown on Table 1. Total irrigated area in these irrigation estimates is approximately 1,239 acres. The potable

irrigation demand of 1,218 af/yr on Table 2 is approximately 541 acres.<sup>1</sup> There are 673 non-potable irrigated acres shown on Table 3.<sup>2</sup>

<b>Table 3</b>		
<b>Annual Non-Potable Irrigation Demand at Build-out</b>		
<b>Land Use</b>	<b>Irrigated Area (acres)</b>	<b>Annual Irrigation (af/yr)</b>
Commercial/Retail	52	117
Mixed Use 1	37	84
Mixed Use 2	32	71
Mixed Use Medical/Educational	11	24
Employment Industrial/Flex/Office	65	146
School/Parks	65	146
Parks	54	122
High Density Residential	30	68
Waste Water Treatment Plant	3	6
Agriculture	150	338
Open Space and ROW	200	450
<b>Total</b>	<b>698</b>	<b>1,570</b>

This plan proposes a dual water system whereby non-potable irrigation water will be delivered to the demands listed in Table 3 through an irrigation system that is completely separated from the potable water supply system. According to Colorado’s reclaimed water regulations (Department of Public Health and Environment, Water Quality Control Commission, 5 CCR 1002-84 Reclaimed Water Control Regulation), wastewater effluent can be directly reused when treated to a certain standard for industrial water, landscape irrigation in restricted access and non-residential areas, street cleaning, and fire protection. Reclaimed wastewater can also be directly used for landscape irrigation in a resident-control community if it is treated to a higher standard.

<sup>1</sup> 1,218 af/yr/2.25 af/ac = 541 acres/year

<sup>2</sup> 541 acres + 673 acres = 1,214 acres

#### 4.1.2 Maximum Day Water Supply Demands

Prosper’s maximum (“max”) day water supply demands for potable and non-potable water supplies are listed on Tables 4 and 5, respectively. Table 4 provides the potable max day demands by land use and Table 5 provides the non-potable max day demands by land use.

<b>Table 4</b>		
<b>Maximum Day Potable Water Demands</b>		
<b>Land Use</b>	<b>Maximum Day Indoor Use Demand (gallons per day)</b>	<b>Maximum Day Irrigation Demand (gallons per day)</b>
Commercial/Retail	192,672	
Mixed Use 1	337,176	
Mix Use 2	247,530	
Mixed Use Medical/Educational	80,280	
Employment Industrial/Flex/Office	561,960	
High School	32,754	
K-8 School	81,886	
Low Density Residential	401,400	1,402,393
Medium Density Residential	1,228,284	4,291,324
High Density Residential	220,770	
<b>Totals (mgd)</b>	<b>3.38</b>	<b>5.69</b>

The data on Table 4 shows the max day potable irrigation demand for the rural and medium residential development. The total max day potable demand is 9.08 million gallons per day (mgd) (3.38 mgd + 5.69 mgd). The total non-potable max day demand data is shown on Table 5. The total max day non-potable irrigation demand is 3.95 mgd.

<b>Table 5</b>	
<b>Maximum Day Non-Potable Water Irrigation Demands</b>	
<b>Land Use</b>	<b>Maximum Day Irrigation Demand (mgd)</b>
Commercial/Retail	0.35
Mixed Use -1	0.25
Mixed Use - 2	0.21
Mixed Use Medical/Educational	0.07
Employment Industrial/Flex/Office	0.44
School/Parks	0.44
Parks	0.37
High Density Residential	0.20
Waste Water Treatment Plant	0.02
Agriculture	0.68
Open Space & ROW	0.91
<b>Total</b>	<b>3.95</b>

Additional detail on the calculation of these max day demands are included in Appendix E for the potable max day values and in Appendix F for the non-potable max day values.

**4.2 A Description of the Physical Source of the Proposed Water Supply That Will be Used to Serve the Proposed Development**

The physical sources of Prosper’s proposed water supply of 5,986 af/yr are shown on Table 6. The build-out water supply is met with: (a) Denver Basin ground water, (b) renewable surface water, (c) reclaimed wastewater, and (d) lawn irrigation return flow (“LIRF”). S.B. 1141 (C.R.S. § 29-20-302(2)) states that applicant is not required to own or have acquired the proposed water supply or infrastructure that is the subject of its S.B. 1141 water supply report. Nevertheless, Prosper does have a decree for over 5,400 af/yr of nontributary and not nontributary Denver Basin ground water underlying the project. Under this water supply plan, Prosper will use 1,595 af/yr of its nontributary Denver Basin groundwater. This amount represents 27 percent of the total demand for the Prosper development at full build-out and only 49 percent of Prosper’s nontributary water (3,250.6 af/yr) available under its decree. Prosper proposes to meet 33 percent of the total supply, or 2,085 af/yr, with renewable surface water.

<b>Table 6</b>		
<b>Average Annual Water Supply</b>		
<b>Prosper Water Supply</b>		
	Volume (af/yr)	Percentage
Denver Basin Aquifer Ground Water (nontributary)	1,595	27
Renewable Surface Water	2,085	35
Reclaimed Wastewater	1,913	32
Lawn Irrigation Return Flow	392	7
<b>Total</b>	<b>5,986</b>	<b>100</b>

Reclaimed water in the form of reclaimed wastewater and LIRF is 39 percent of the total supply. Reclaimed wastewater is 1,913 af/yr and LIRF is 392 af/yr. Nontributary Denver Basin ground water and the renewable surface water are reusable water supplies. The return flow from the application of these waters to indoor and outdoor uses will be diverted, treated, and used as a water supply. Approximately 95 percent of indoor use water and approximately 15 percent of irrigation water will return to the surface water system as return flow and be reused. Current plans call for the diversion of reclaimed wastewater, either through direct non-potable reuse for irrigation, or by indirect reuse through underground storage or as recaptured by Box Elder Creek alluvial wells located in the northeastern portion of the development.

**4.2.1 Denver Basin Ground Water**

**4.2.1.1 Prosper’s Decreed Denver Basin Ground Water**

Over 5,400 af/yr of Denver Basin ground water beneath the Prosper development lands was decreed to Prosper Farms Investments, LLC, in Division 1 Water Court, Case No. 11CW22. The 5,130 acres of development lands that are the subject of this zoning application are decreed as a well field pursuant to the 11CW22 decree. The decree for 11CW22 is included as Appendix G. Table 7 below is taken from the 11CW22 decree. Table 7 shows the ground water type and the decreed annual withdrawal amounts for each Denver Basin aquifer beneath Prosper.

<b>Table 7</b>		
<b>Prosper Farms Contiguous Lands – Summary of Denver Basin Water Underlying Approximately 5,262.2 Acres</b>		
<b>Aquifer</b>	<b>Ground-Water Type</b>	<b>Annual Withdrawal (af/yr)</b>
Denver	Not Nontributary – Actual	876.0
Denver	Not Nontributary – 4%	1,298.6
Upper Arapahoe	Nontributary	1,314.0
Lower Arapahoe	Nontributary	626.0
Laramie-Fox Hills	Nontributary	1,310.6
<b>Total</b>		<b>5,425.2</b>

The well field lands adjudicated in the 11CW22 decree are shown on Figure 1. The land area shaded in purple on Figure 1 is not owned by Prosper and is not a part of the well field included in the 11CW22 decree. The 11CW22 decree includes 3,250.6 af/yr of nontributary ground-water in the Upper Arapahoe, Lower Arapahoe, and Laramie-Fox Hills aquifers. Of this amount, Prosper anticipates that it will only pump a total amount of 1,595 af/yr at full build-out. All of the Denver Basin ground water beneficial uses required for the Prosper development are included in the 11CW22 decree.

#### ***4.2.1.2 Adequacy of the Denver Basin Ground Water***

Decreed nontributary Denver Basin ground water beneath Prosper totals 3,250.6 af/yr. Under this water supply plan, only 1,595 af/yr of Prosper’s 3,250.6 af/yr of nontributary ground water is proposed as a part of the physical water supply for the development. Three hundred six af/yr of Denver Basin ground water is assigned to evaporation from the 80 acre irrigation reservoir located on Prosper. It is anticipated that this water will primarily be withdrawn from the Lower Arapahoe and Laramie-Fox Hills aquifers. The decreed annual appropriation from the Lower Arapahoe and Laramie-Fox Hills aquifers is 1,936.6 af/yr (626 af/yr + 1,310.6 af/yr). It is anticipated that approximately one-third of Prosper’s Denver Basin component of its water supply, or 532 af/yr (1,595 af/yr x .3333) will come from the Lower Arapahoe aquifer and approximately two-thirds of the Denver Basin component, or 1,063 af/yr (1,595 af/yr x .6666),

will come from the Laramie-Fox Hills Aquifer. Pumping from the Denver Aquifer (decreed for 2,174.6 af/yr) and Upper Arapahoe aquifer (decreed for 1,314 af/yr) is not included as a primary physical source of water under this plan. Denver and Upper Arapahoe ground water may, however, be used as an auxiliary supply, if needed during extreme drought periods. The proposed annual volume of Denver Basin ground water to be used in this plan is 29 percent of the total volume of Denver Basin water available to Prosper Farms under its decree ( $1,595 \text{ af/yr} \div 5,425.2 \text{ af/yr} = 29 \text{ percent}$ ). The proposed use of 1,595 af/yr of Denver Basin nontributary water is very reasonable and conservative. This amount also demonstrates the dependability and availability of the Denver Basin component of Prosper's proposed water supply, because 1,595 af/yr represents only 29 percent of Prosper's total decreed Denver Basin water; only 49 percent of Prosper's decreed nontributary water; and only 27 percent of Prosper's total supply proposed for the development.

The adequacy of the nontributary component of Prosper's water supply plan under S.B. 1141 is defined in terms of water quantity, quality, dependability and availability. The quantity, dependability and availability elements are met, as discussed above. As for the water quality component, in Phase 1 the Denver Basin ground water will be treated at the well head and if necessary blended to meet all applicable potable water quality standards. After Phase 1 the Denver Basin ground water may be treated by a on-site water treatment facility. The Leonard Rice 2001 report states that, "The water quality of all of the aquifers ranges from good on the west side of the county to fair to poor on the east side. Total dissolved solids, sulfate and hardness increase from west to east across the County." (page 3, Section 1.3). Section 6.0 of the same report includes a water quality analysis for each aquifer. In the Leonard Rice report, the Upper and Lower Arapahoe aquifers are combined as the Arapahoe aquifer. Prosper is located in the west-central portion of Arapahoe County. The Leonard Rice, 2001 report water quality analyses for the Arapahoe and Laramie-Fox Hills aquifers provides some information on water quality with respect to primary drinking water standards. Water quality sample data for some of the primary drinking water standards is provided in the report. This data shows that the Arapahoe and Laramie-Fox Hills ground water meets the reported primary drinking water standards. Arapahoe and Laramie-Fox Hills water quality data is also provided for secondary water quality standards. This data shows that some of the Arapahoe and Laramie-Fox Hills

ground water samples tested exceed some of the secondary water quality standards. As stated above, Lower Arapahoe and Laramie-Fox Hills ground water will be treated in order to provide good quality water to Prosper. Lower Arapahoe water quality is normally better than Laramie-Fox Hills water quality.

Phase 1 of the project will be served with Denver Basin ground water as the supply and a central WWTP. A central water supply treatment plant may be built to serve Prosper after Phase 1. Potential ground water supply treatment for iron and manganese will occur at the well site. Chlorination of the ground water will also occur at the well site. Blending of Lower Arapahoe and Laramie-Fox Hills aquifer ground water may occur.

## **4.2.2 Renewable Surface Water**

### ***4.2.2.1 Renewable Surface Water Supplies and Delivery***

Prosper's proposed water supply plan includes 1,903 af/yr of renewable surface water. This volume of water represents 33 percent of Prosper's total water supply at full build-out. Three hundred seventy five af/yr is assigned to evaporation from a 2,000 af raw water reservoir. No portion of the renewable surface water will be needed by the project until approximately ten years after development begins. Currently, the proposed renewable portion of Prosper's water supply for the development is renewable water delivered by ACWWA and the East Cherry Creek Valley Water and Sanitation District (ECCV) pipeline. Prosper is evaluating other renewable supply alternatives, several of which involve participation in the same ECCV pipeline system, under augmentation plans similar to those already approved for or pending for the Barr Lake - ECCV pipeline system discussed below. If Prosper ultimately settles upon a renewable water supply that is other than the renewable components described in this report, Prosper will submit such revisions to the proposed water supply plan for review and consideration by the County.

The ECCV pipeline is located approximately three miles west of Prosper's western boundary. The pipeline's capacity is 47 mgd. Service to Prosper via the ECCV pipeline requires approximately 1,598 af/yr (2,085 af/yr – 375 af/yr – 112 af/yr) of capacity. Prosper's ultimate renewable water max day pipeline demand is 7.9 mgd. ECCV has indicated that 7.9 mgd of

capacity is currently available for acquisition to serve Prosper. Prosper has been in discussions with ACWWA and ECCV concerning, among other things, acquiring the capacity in the ECCV pipeline required to serve Prosper's 1,598 af/yr of renewable water supply; and tying into ECCV's pipeline, with an approximately three-mile pipeline that runs from the ECCV pipeline, east to the Prosper development. These are a part of the discussions that have led to the conditional will-serve letter ACWWA issued to Prosper.

Under the ECCV cases adjudicated to date for utilization of the ECCV pipeline (Case Nos. 02CW403 and 02CW404), the pipeline project is operated under a conventional augmentation plan concept. Simply stated, the Barr Lake alluvial wells pump junior ground water to a treatment plant, where it is treated and subsequently pumped into the ECCV pipeline for delivery south. The junior alluvial well water pumped near Barr Lake is replaced with augmentation water recharged from locations in Beebe Draw and from augmentation water delivered to approximately the confluence of Beebe Draw and the South Platte River. The augmentation plan replacement requirement is 100 percent of the water pumped from the well field, because the water is transported and used out of the basin. The renewable water delivered via the ECCV pipeline is therefore 100 percent reusable.

Currently, the ECCV pipeline system is in operation and is delivering treated water from near Barr Lake, south to the ECCV and ACWWA service areas. There is approximately 10 mgd of capacity at the ECCV treatment plant. Both the Barr Lake well field and the treatment plant would need to be upsized to accommodate Prosper's renewable water needs. Upsizing of these facilities has also been discussed with ACWWA, which believes such upsizing would be a reasonable and feasible condition of ACWWA providing water service to Prosper. Prosper's purchase of renewable surface water from ACWWA, or Prosper's purchase of renewable surface water from third parties for dedication to ACWWA, would be required for ACWWA to provide water service to the development. This has also been discussed with ACWWA and is viewed by ACWWA and Prosper as a reasonable and feasible condition. The conditional will-serve letter issued by ACWWA to Prosper is included as Appendix H to this report.

At these early stages of the Prosper project, the Prosper water development team is diligently working on the acquisition of its proposed renewable augmentation water supplies (which supplies are discussed in further detail below). This work is currently being performed well in advance of the actual need for any renewable supplies (some 10 years from now) because the Prosper water development team understands the time required to: identify, investigate, evaluate, obtain agreements, purchase, and obtain Water Court decrees for the proposed renewable augmentation water. This multi-year process is currently underway and will be completed well before any renewable water is required by the Prosper project.

#### ***4.2.2.2 Adequacy of the Renewable Surface Water Supply***

Prosper's proposed South Platte River Basin renewable surface water supplies discussed below will be an adequate supply for the 32 percent renewable component of Prosper's water supply plan. Adequacy is defined in terms of water quantity, quality, dependability and availability.

As shown in the water balance calculations (Table 6) 1,913 af/yr of renewable surface water is an adequate quantity of renewable water. As explained above, 1,598 af/yr of renewable surface water may be derived from pumping ACWWA/ECCV wells in the Barr Lake well field, into the ECCV pipeline, delivering that renewable water south to Prosper, and augmenting the well pumping 100 percent with the proposed South Platte River Basin senior water rights discussed in Section 4.3.2 of this report. It will also be possible to develop a South Platte alluvial wellfield. The adequacy of South Platte Basin renewable surface water in terms of quantity, dependability and availability is demonstrated in Section 4.3.2, where the quantity of water under various hydrologic conditions is discussed. In regard to the quality of the proposed renewable component, the South Platte River Basin raw surface water will be treated to potable municipal standards at a water treatment plant before it is delivered to the Prosper project. The initial water quality of the renewable water primarily relates to the required water treatment method. Prosper's water treatment civil engineers will evaluate water treatment alternatives and determine the preferred water treatment method. However, the finished product of the renewable water treatment, regardless of method, will be to meet all applicable potable water standards before the water is delivered to Prosper.

### **4.2.3 Reclaimed Waste Water**

The proposed Prosper water supply includes 1,913 af/yr of reclaimed wastewater. This volume of water represents 32 percent of the project's water supply. Renewable surface water and nontributary Denver Basin ground water are reusable water supplies. Only two percent of nontributary Denver Basin ground water that is produced must be relinquished to the surface water system. The remainder of the nontributary Denver Basin ground water, 98 percent, can be reused to extinction.

Prosper will have an onsite waste water treatment plant ("WWTP") which will treat all return flows accruing from indoor use of Prosper's reusable surface water and reusable Denver Basin supplies.<sup>3</sup> 1,913 af/yr of these treated return flows will then be recaptured and reused by Prosper. Prosper proposes to reuse this water by delivering the reusable wastewater/treated effluent to the Box Elder Creek drainage and/or to alluvial aquifer storage, and recapturing the water with wells located in the northeast portion of the development. Alternatively, Prosper will deliver the treated return flows to a raw water irrigation system. Figure 2 is a map of the subject property, Box Elder Creek, and test holes completed by HRS in the Box Elder Creek alluvium. A detailed discussion of the Box Elder Creek alluvial aquifer is included in Prosper's 1041 submittal in Section 12.d.i and is incorporated herein by reference.

#### ***4.2.3.1 Indirect Reuse of Waste Water from the Box Elder Creek Alluvial Aquifer***

For the indirect reuse of the indoor-use return flows, Prosper intends to pipe treated wastewater from the Prosper sewer treatment plant discharge to an upgradient location on Box Elder Creek. The wastewater will infiltrate into the Box Elder Creek alluvial aquifer and/or an underground alluvial storage facility. The water would then be diverted from the Box Elder Creek alluvial aquifer through alluvial wells, sub-surface drains, or another diversion system, and may be delivered into Prosper's on-site water treatment plant. In Phase 2 the water supply plan does not

---

<sup>3</sup> All required details and specifications concerning Prosper's wastewater treatment will be submitted in the context of a separate 1041 permitting process.

contemplate directly treating wastewater to potable standards. Wastewater designated for reuse will either be pumped by exchange from alluvial wells and treated to potable standards (indirect potable reuse) or will be used for irrigation only (direct non-potable reuse). In Phase 2, water will be treated to the appropriate potable standard with appropriated water treatment methodologies. Treatment beyond the conventional approaches of coagulation, sedimentation, filtration and disinfection is not anticipated. Some effluent, approximately 343 af/yr (1,913 af/yr – 1,570 af/yr), may be used as indirect potable supply. This water would come from Box Elder Creek. Recapturing the water via wells located down gradient of the discharge into the Box Elder Creek will be accomplished through a Water Court-approved augmentation plan decree.

The reclaimed water supply is derived from return flows from the first use of reusable water for indoor purposes. 2,369 af/yr is the estimated indoor demand. Indoor use is estimated to be five percent consumptive. Therefore, Prosper anticipates approximately 2,251 af/yr of reusable return flows to be produced from the first use of its 2,369 af/yr reusable indoor-use supplies. From this 2,369 af/yr of return flows, approximately 15 percent is lost during the wastewater treatment process. This leaves 1,913 af/yr available to be recaptured and reused.

#### ***4.2.3.2 Direct Reuse of Waste Water for Irrigation***

As previously discussed, the non-potable irrigation demand is 1,570 af/yr. Therefore, it is anticipated that a large portion of the reusable waste water supply of 1,913 af/yr will be used in a direct reuse non-potable irrigation system. The direct use of waste water for irrigation is included in Regulation No. 84 of the Colorado Department of Public Health and Environment Water Quality Control Commission. For the direct reuse of the indoor-use return flows, Prosper effluent would be treated to appropriate standards and delivered into the non-potable irrigation system, or, alternatively, delivered from the wastewater treatment plant to storage for subsequent irrigation application. The level of required waste water treatment for direct reuse of waste water for irrigation under Regulation No. 84 is less than the level of waste water treatment required to produce potable water. Under Regulation No. 84 filtration and chlorination is required. A central WWTP will be constructed in Phase 1. The conceptual level master plan for the waste

water system includes 800 af of reuse irrigation storage. The current conceptual plan does not include storage sites outside the Prosper area.

#### ***4.2.3.3 Adequacy of the Reclaimed Waste Water Supply***

The 1,913 af/yr of reclaimed waste water is derived from the reusable character of nontributary Denver Basin ground water and the reusable surface water components of Prosper's proposed water supply. The 1,913 af/yr quantity is adequate and appropriate, as shown above, based upon return flows arising from use of 2,369 af/yr of indoor-use demand. 1,913 af/yr of reclaimed water is a dependable and available supply because it is based upon the known quantity of reusable supplies applied to indoor use, and reasonable and customary engineering calculations as to the amount of return flows that will arise from the use of the reusable supplies for indoor purposes, as shown above. The quality of the reclaimed water is also adequate, as it will be treated to all water quality standards applicable to its intended uses, as described above. Therefore, the reclaimed water component of Prosper's proposed water supply is adequate in terms of quantity, quality, availability and dependability.

#### **4.2.4 Lawn Irrigation Return Flow**

##### ***4.2.4.1 Quantification of the Lawn Irrigation Return Flow***

Prosper's proposed water supply includes 392 af/yr of lawn irrigation return flow ("LIRF"), which is seven percent of the total annual water supply. LIRF is derived from reusable water sources that are applied to irrigation (whereas, as explained above, Prosper's reclaimed water is derived from reusable water sources that are applied to indoor uses). LIRF will be quantified and approved for re-use by Water Court decree once a hydraulic connection is established between irrigated areas and nearby surface water drainages where the water discharges, and after analyses have been performed to quantify the volume and timing of LIRF to surface water drainages. The total volume of LIRF water will be available to Prosper's water supply after the project is built out. The water can be diverted or exchanged to meet Prosper's demands. Diversion of LIRF from a surface drainage typically includes the pumping of alluvial ground water through alluvial wells. LIRF is then pumped to water treatment and or storage via

pipelines. LIRF diversion wells or other alluvial diversion structures in Coyote Creek are likely. Typically, LIRF can be adjudicated approximately five years after lawn irrigation water is first applied. Therefore, LIRF will be adjudicated as development and irrigation proceeds towards build-out. Until the entire volume of LIRF credit can be claimed, it may be necessary to produce an additional amount of Denver Basin ground water.

#### ***4.2.4.2 Adequacy of the Lawn Irrigation Return Flow Supply***

LIRF is an adequate source of water. It is included in the water supplies of most Front Range water providers whose water supplies include reusable water. The Prosper LIRF volume of 392 af/yr is based on an estimated LIRF percentage of 15 percent of the water applied to irrigation. Per Section 4.1.1 above, 2,788 af/yr of Prosper's total water demands are attributable to Prosper's irrigation demands. Thus,  $2,788 \times .15 = 418$  af/yr of LIRF. Prosper deducts from this amount the two percent relinquishment associated with use of 1,289 af/yr nontributary water, leaving 392 af/yr LIRF. The LIRF percentage of 15 percent is based on a 13 percent deep percolation value and a two percent surface runoff value. The actual LIRF percentage will be determined based on Prosper's actual lawn irrigation application data and Water Court decree. If the actual volume of LIRF is less than 392 af/yr, additional renewable surface water will be purchased or more nontributary Denver Basin ground water could be produced.

The 392 af/yr quantity of LIRF is appropriate as shown above, based on reasonable engineering principles and the return flows arising from use of 2,788 af/yr of reusable supplies applied to irrigation, as calculated above. The 392 af of LIRF will be recaptured and reused in Prosper's potable or non-potable water systems, and treated to all standards applicable to the intended reuse. The 392 af/yr of LIRF is a dependable and available supply, because it is based upon the known quantity of reusable supplies applied to irrigation use, and reasonable and customary engineering calculations as to the amount of return flows that will arise from the first use of the reusable supplies for irrigation purposes, as shown above. Therefore, the LIRF component of Prosper's proposed water supply is adequate in terms of quantity, quality, availability and dependability.

### **4.3 An Estimate of the Amount of Water Yield Projected from the Proposed Water Supply Under Various Hydrologic Conditions**

#### **4.3.1 Denver Basin Ground Water and Reclaimed Wastewater**

Varying hydrologic conditions will not affect Prosper's Denver Basin ground water supply. Under Prosper's proposed water supply plan, the Denver Basin demand at build-out is 1,289 af/yr (1,595 af/yr – 306 af/yr<sup>4</sup>). This amount of water will be available from Prosper's decreed 5,425 acre-feet of Denver Basin ground water underlying the project under all hydrologic conditions. The total amount of reclaimed wastewater at build-out is 1,913 af/yr. Of this amount, 854 af/yr<sup>5</sup> is reclaimed Denver Basin ground water. This volume of reclaimed wastewater will also be available under all hydrologic conditions. Therefore, at full build-out, a total of 2,143 af/yr (1,289 af/yr + 854 af/yr) of Prosper's proposed water supply is available under all hydrologic conditions.

#### **4.3.2 Renewable Surface Water and Reclaimed Wastewater**

A number of senior South Platte River Basin water rights have already been approved as augmentation sources for operation of the ECCV pipeline and augmentation plan to replace stream depletions arising from the Barr Lake well field. The following supplies, among others, have been approved as augmentation sources for the pipeline and ECCV well field pumping, in the following cases:

1. Case No. 02CW403, FRICO Burlington /Barr Lake Divisions
2. Case No. 02CW403, Burlington Ditch & Reservoir Co
3. Case No. 02CW404, Lower Latham Ditch & Reservoir Co.

A number of senior water rights are currently pending in Division 1 Water Court as proposed augmentation sources for operation of the ECCV pipeline and augmentation plan to replace stream depletions from the Barr Lake well field pumping, including:

---

<sup>4</sup> 306 af/yr is for non-potable reservoir evaporation. Six af/yr of 306 af/yr is for two percent nontributary relinquishment.

<sup>5</sup>  $((1,289 \text{ af/yr} \div (1,289 \text{ af/yr} + 1,598 \text{ af/yr})) \times 1,913 \text{ af/yr}) = 854$

1. Case No. 10CW313, Fulton Ditch Company
2. Case No. 06CW40, Greeley Irrigation Company (Greeley Canal No. 3)
3. Case No. 12CW73, Farmers Independent Ditch

A number of other senior water rights have been identified in the ECCV-project decrees as additional sources of augmentation to be added to the system, including the Whitney Irrigating Ditch Company.

Generally speaking, many senior ditch rights that are deliverable to approximately the confluence of Beebe Draw and the South Platte River, along with recharge accretions within Beebe Draw, would replace depletions accruing from the Barr Lake well field in time, location and amount, so as to prevent injury to other water rights. Prosper has not yet acquired the senior augmentation water rights needed to be dedicated to or purchased from ACWWA in order to receive water service from ACWWA via the ECCV pipeline, although such water rights as those described above are generally available for acquisition.

In fact, the following water rights would, in our opinion, be particularly suitable for purchase from or dedication to ACWWA in exchange for water service to the Prosper development via the ECCV pipeline, because there are (a) decreed or pending Water Court cases for approved use of these specific water rights in the ECCV pipeline system augmentation plan, and/or (b) established Water Court precedent quantifying the historical consumptive use of these specific water rights:

- Fulton Ditch Company
- Lower Latham Ditch & Reservoir Co.
- Whitney Irrigating Ditch Company
- Greeley Irrigation Company (Greeley Canal No. 3).

Accordingly, Prosper is at this time proposing a combination of the four senior rights listed immediately above, to be used as augmentation sources for the renewable component of Prosper's water supply proposed to be delivered by ACWWA. The average annual yield, on a per-share basis, which is projected to be derived from these sources under various hydrologic conditions has been determined by prior decrees of the Division 1 Water Court and is expressed as the decreed historic consumptive use/average annual historic net depletion associated with these water rights. Below is a summary of the relevant average annual historic net depletion findings, and other factors determining the average annual yield, decreed for each of the above-four proposed water rights.

- Fulton Ditch Company

The Fulton Ditch is a senior water right (adjudication date of April 28, 1883), which will be legally available for diversion even under drought conditions. The Fulton Ditch diverts from the South Platte River near the Interstate Highway I-76 and Colorado Highway 85 interchange. Fulton Ditch shares have been changed in several previous Water Court cases. A Fulton Ditch report prepared for the City of Brighton in pending Case No. 04CW174 by Leonard Rice Engineering, Inc. ("LRE") includes data of five previous Fulton Ditch transfer cases: City of Brighton Case No. 2000CW202, South Adams County Water and Sanitation District Case No. 2001CW258, Central Colorado Water Conservancy District Case No. 2001CW264, Cannon Water, LLP Case No. 2003CW084 and City of Fort Lupton Case No. 2003CW119. The average annual historic net depletions in these five cases range from 0.97 to 2.19 af/share/year. The LRE report in Case No. 04CW174 calculates an average annual historic net depletion value of 1.71 af/share/year.

- Lower Latham Ditch & Reservoir Co.

The Lower Latham Ditch is a senior water right (adjudication date of April 28, 1883), which will be legally available for diversion even under drought conditions. The Lower Latham Ditch diverts from the South Platte River near Evans, Colorado. Lower Latham Ditch & Reservoir Co. shares have been changed in Case No. 88CW264(B). The applicant in Case No. 88CW264 (B) was the National Hog Farm. Six shares were changed in 88CW264(B). The average annual historic stream depletion in 88CW264(B) was 126.7 af/share/year based on a maximum 20-year running average value. These same six Lower Latham shares were recently included in Case Nos. 02CW404/03CW442 by: Farmers Reservoir and Irrigation Company (“FRICO”), Sand Hills Metropolitan District, United Water and Sanitation District and ECCV. The 02CW404/03CW442 case relied on the previously-decreed 88CW264(B) stream depletion value of 126.7 af/share.

- Whitney Irrigating Ditch Company.

The Whitney Ditch is a senior water right (adjudication date of April 11, 1882), which will be legally available for diversion even under drought conditions. The Whitney Ditch diverts from the Cache la Poudre River, which is tributary to the South Platte River. The Whitney Ditch headgate is located west-southwest of Windsor, Colorado. There are three Whitney Ditch change of use cases. Case No. 02CW390 by Trollco, Inc. changed 40 ditch shares. The average annual historic stream depletion was 14.4 af/share/year. Case No. 02CW331 by Roberts changed eight ditch shares. The average annual historic stream depletion was 16.3 af/share/year. Case No. 08CW65 by the Great Western Development Company and Poudre Tech Metropolitan District completed a ditch wide analysis. The results of this analysis resulted in an average annual historic stream depletion of 13.69 af/share/year, which will likely be applied to all future Whitney Ditch change cases.

- Greeley Irrigation Company (Greeley Canal No. 3).

The Greeley Canal No. 3 is a senior water right (adjudication date of April 11, 1882), which will be legally available for diversion even under drought conditions. The Greeley Canal No. 3 is part of Greeley Irrigation Company. The Greeley No. 3 Ditch diverts from the Cache la Poudre River approximately two miles west of Greeley, Colorado. Case No. 96CW658 by the Poudre Prairie Mutual Reservoir and Irrigation Company completed a transfer of 67.75 shares of the Greeley Irrigation Company. The average annual historic stream depletion in this case was 10.31 af/share/year.

In accordance with the decreed average annual yields of these proposed renewable water rights, 1,903 af/yr of consumptive use water as derived from these water rights may feasibly be obtained either by ACWWA and sold to Prosper, or obtained by Prosper and dedicated to ACWWA, in order to fully augment the renewable water component proposed to be delivered to Prosper via the ECCV pipeline project.

The Prosper water development team will also acquire above-ground storage or Denver Basin aquifer storage for the renewable South Platte River Basin water, either independently or through the proposed water provider ACWWA, as necessary in order to firm up the yield of the proposed Prosper renewable water supply. Thus, the supply will be able to meet augmentation requirements from storage, even under extreme drought conditions, and even if the proposed senior supplies may be out of priority. The storage will also be needed to meet winter return flow obligations associated with the changed water rights.

The total amount of reclaimed wastewater at build-out is 1,913 af/yr. Of this amount 1,059 af/yr<sup>6</sup> is reclaimed renewable surface water. This volume of reclaimed wastewater will be available, as is the renewable surface water. Therefore, at full build-out, a total of 2,657 af/yr (1,598 af/yr + 1,059 af/yr) is expected to be available under all but the most severe drought hydrologic conditions. In such severe drought conditions, the renewable water is still expected to be available as a result of storage as described above.

---

<sup>6</sup>  $((1,598 \text{ af/yr} \div (1,289 \text{ af/yr} + 1,598 \text{ af/yr})) \times 1,913 \text{ af/yr}) = 1,059 \text{ af/yr}$

### **4.3.3 Lawn Irrigation Return Flow**

Under Prosper's proposed water supply plan, at full build-out the volume of LIRF is expected to be 392 af/yr. In severe drought years, if watering restrictions are imposed, irrigation restrictions would result in smaller LIRF volumes in subsequent months or years according to the delayed LIRF accretion timing. Several factors including the severity of the drought and the schedule and duration of irrigation restrictions would affect subsequent LIRF volumes. We expect any lost LIRF volumes arising under irrigation restrictions to be more than offset by the water savings realized as a result of the watering restrictions themselves. In any event, Prosper intends to acquire renewable supply in sufficient volumes to make up for any reduced LIRF supplies experienced as a result of drought conditions or any reduced LIRF supplies that are available prior to full build-out; and, otherwise, as necessary for storage purposes to firm up Prosper's renewable supplies as described above.

### **4.4 Water Conservation Measures, if any, that may be Implemented within the Development**

The above analysis of water demands and Prosper's proposed water supply to meet those demands does not include all possible conservation measures and, therefore, the adequacy of Prosper's proposed water supply is not dependent at this time on conservation measures. The 0.4 af/SFE value may be reduced with additional conservation. Prosper intends to establish a comprehensive water conservation plan that utilizes the latest technologies and methods for efficient utilization and conservation of water. This comprehensive water conservation plan will be implemented in the initial and subsequent phases of the project. The conservation plan will include and incorporate strategies for implementation, monitoring, and evaluation of consumption as required to achieve water efficiency and conservation goals that are to be established for each project within Prosper. This approach will incorporate conservation strategies at a macro and micro level with minimal resident behavioral change required to meet conservation goals. The water conservation plan will be updated over time as new technology and concepts become available. Specific conservation measures for each component of Prosper will be established prior to final plat of such development. To the extent such conservation plans

may alter the demand and proposed supply analysis discussed above, Prosper will update that analysis.

#### **4.4.1 Indoor Water Conservation**

Prosper shall include a water conservation plan that requires residential and non-residential structures to incorporate the latest technologies and methods for conserving water. This plan may include a dual metering or other technology monitoring system to determine indoor and outdoor water use. Water efficient technologies will include but not be limited to instantaneous hot water systems and high-efficiency dishwashers. Low-flow water fixtures including toilets and shower heads will be required for each structure constructed within Prosper.

#### **4.4.2 Outdoor Water Conservation**

Outdoor water use occurs primarily during the growing season months for irrigation purposes and can account for approximately 50 percent or more of a single-family home's total yearly water consumption. Outdoor water consumption can vary depending on home site size, seasonal climate, and soil conditions. The landscape concept incorporated within each component of the master plan can also significantly impact the amount of water used for irrigation. Irrigation and storm drainage design and configuration can also significantly minimize the amount of water utilized for outdoor use.

The Prosper master plan addresses outdoor water conservation on a macro level by preserving large contiguous areas of open space that is to remain as non-irrigated agricultural land, prairie or riparian corridors. Irrigated open space areas will be restricted to high intensity recreation and pedestrian zones.

Waterwise landscapes that utilize low water-use plants and turf blends will be required for all residential and non-residential projects within Prosper. The use of turf will be reviewed and limited to areas that have higher intensity of use with regards to recreation and pedestrian activity.

Water efficient irrigation systems that include but are not limited to drip and sub-surface drip will be required. Other strategies will include applying the appropriate soil amendments required to retain moisture. On-site drainage plans can also be designed to direct storm water to landscape beds providing supplemental moisture and reducing infrastructure requirements.

#### **4.4.3 Waterwise Certification**

Prosper will implement a waterwise certification program for all residential and non-residential products to minimize indoor and outdoor water use. High-efficiency fixtures and appliances will be required for each project within Prosper. The high-efficiency components will include model specifications for all residential toilets, washing machines, dishwashers, kitchen and bath faucets, and showerheads. Commercial installation equipment will also have to include high-efficiency standards as determined for each project. Prosper will contract with respective builders and developers to ensure that the certification program is implemented as each phase of the project is implemented. Builders will be required to achieve minimum efficiency standards that are to be prescribed for specific uses and associated outdoor uses.

#### **4.4.4 Monitoring and Evaluation**

The Prosper Water Conservation Plan will include a monitoring and evaluation program. Technology and staff will be utilized to evaluate indoor and outdoor water consumption to ensure efficiency objectives are being achieved. This program will include making required recommendations and revisions to increase efficiency and conservation for specific applications.

#### **4.5 Water Demand Management Measures, if any, that may be Implemented within the Development to Account for Hydrologic Variability**

Outdoor watering demand management will be implemented during drought periods to reduce irrigation demand. Outdoor watering demand management could include limiting the number of irrigation days, the time of day when irrigation can occur, and the duration of the irrigation periods. The familiar diamond, circle, square method of limiting the number of residential irrigation days during the week could be implemented.

## **4.6 Other Information as may be Required by the Local Government**

### **4.6.1 Prosper's Arapahoe County 1041 Submittal**

The Prosper project team headed by Vogel and Associates has submitted a 1041 project report to Arapahoe County according to Arapahoe County's 1041 regulations.

## **5.0 C.R.S. § 30-28-136 Water Supply Requirements**

Under C.R.S. § 30-28-136, counties are required to refer to the SEO the water supply plan included in any land use application that involves a "subdivision" of land pursuant to C.R.S. § 30-28-101(10)(a); and the SEO is required to respond to such referrals by evaluating the proposed water supply with respect to its adequacy and potential for injury to other water rights. The current application before the Planning Department does not involve a subdivision of land pursuant to C.R.S. § 30-28-101(10)(a). Accordingly, the County is not required to refer this application to the SEO and the SEO is not required to, and will not, render an evaluation of the proposed water supply. If the County nevertheless elects to refer this non-Subdivision application to the SEO, the SEO will provide a " cursory" review and "informal" comments only. *See* SEO March 16, 2005 Memorandum, Appendix D, Page 2. Moreover, through our discussions with the SEO we understand that the SEO will not render an affirmative opinion of water supply plan adequacy and non-injury until the applicant has obtained all of the Water Court decrees required by the proposed water supply plan. The SEO will not state that the proposed water supply plan is adequate and non-injurious to other water rights until all decrees are final and the decrees find the plan to be non-injurious.

This water supply plan report explains Prosper's proposed water supply at full build-out, which is anticipated to take place over a 30 year time period. Consequently, this proposed water supply will be implemented according to Prosper's development schedule and the timing of zoning approvals obtained from Arapahoe County. Water Court decrees will be obtained months in advance of the time any water from those decrees is needed in order to meet any project

demands. The Prosper water supply development team understands that this approach will not allow the SEO to conclude that the water supply plan is adequate and non-injurious at this time, should the County elect to make an informational referral of the plan to the SEO during this non-subdivision land use proceeding. A finding of adequacy and non-injury by the SEO will, however, be made at the appropriate time. In the meantime, the Prosper water supply development team will continue in dialogue with the Arapahoe County Planning Department as the water rights for its proposed water supply are acquired by Prosper, water court filings are made in regard to the acquired water supplies, and the proposed supplies are implemented more specifically into the water plan. Prosper will continue to explain and update its adequate and non-injurious water supply plan to the County as necessary. Prosper's water supply development team also looks forward to working with the Arapahoe County Planning Department to develop the appropriate zoning approval conditions with respect to Prosper's proposed water supply plan.

## **5.1 Adequacy**

Discussions of water supply plan adequacy are included in Section 4.2 of this report.

## **5.2 Non-Injury**

### **5.2.1 Lower Arapahoe and Laramie-Fox Hills Aquifers**

Pumping from the Lower Arapahoe and Laramie-Fox Hills aquifers will not result in injury to other Lower Arapahoe and Laramie-Fox Hills wells, or wells completed in the other Denver Basin aquifers. Lower Arapahoe and undifferentiated Arapahoe aquifer well information is included on Table 8 and Figure 3. Laramie-Fox Hills aquifer well information is included on Table 9 and Figure 4. The tabulated well information includes: a counter that locates the well on its respective figure, the well owner's name, the well permit number, the Water Court case number, the county in which the well is located, well location data, the well use, the annual appropriation, the date the well permit was issued, the well depth, the depth to the well's top perforation, the depth to the well's bottom perforation, the well's permitted pumping rate, and the well's recorded depth to ground water. As shown on Figures 3 and 4, there are no Lower Arapahoe, Arapahoe, or Laramie-Fox Hills wells located near Prosper's boundary.

Due to the separating clay and shale layers between all of the Denver Basin aquifers, the Denver and Upper Arapahoe aquifers will not be affected by pumping from the Lower Arapahoe and Laramie-Fox Hills aquifers. The Lower Arapahoe aquifer is below the Upper Arapahoe aquifer. The base of the Lower Arapahoe aquifer ranges from approximately 1,300 feet on the east side of Prosper to approximately 1,500 feet below ground level on the west side of Prosper. The Laramie-Fox Hills aquifer lies below the Laramie Formation which lies below the Lower Arapahoe aquifer. The Laramie Formation, which is not an aquifer, is approximately 300 feet thick beneath Prosper. The base of the Laramie-Fox Hills aquifer ranges from approximately 1,800 feet on the east to approximately 2,100 feet below ground level on the west side of the project area.

### **5.2.2 Renewable, Reclaimed, and Lawn Irrigation Return Flow Water**

Water rights decrees will be obtained changing Prosper's proposed renewable supplies for municipal purposes and pursuant to court-approved augmentation plans, once the proposed renewable supplies are acquired. Water Court decrees will also be obtained that will quantify and permit recapture of the LIRF water, once operations are sufficiently developed to quantify the timing and location of the LIRF accruals. Water Court decrees will include the right to reclaim wastewater return flows from the first use and subsequent uses of renewable surface water and LIRF, in addition to Denver Basin ground water. Each of Prosper's water rights decrees will include the necessary terms and conditions for the prevention of injury to other water rights.

## 6.0 Conclusion

The Prosper project is expected to include approximately 9,000 dwelling units and 8,600,000 square feet of non-residential uses. Prosper's build-out planning horizon is approximately 30 years. This water supply plan report for Prosper Farms Investment, LLC has addressed the statutory water supply plan requirements of S.B. 1141 and C.R.S. § 30-28-136(h)(I) with respect to the Prosper project. The Prosper water supply plan is based on reasonable engineering and hydrogeologic parameters and procedures that are commonly-accepted in Water Court and the water supply industry. Furthermore, the Prosper water supply is customary and reasonable with respect to current Front Range water supply planning. This water supply plan describes Prosper's: annual water demands at build-out, max day water demands at build-out, the projects four sources of water, demonstrates the adequacy of the water supplies, the variability of the water supplies under various hydrologic conditions, the project's water conservation plan and demand management measures. Specifically, with respect to renewable surface water, this water supply plan includes a conditional will-serve letter from ACWWA. C.R.S. § 30-28-136(h)(I) does not require Prosper to own all of its proposed water supplies at this time. Because Prosper does not own all of the proposed water supplies (namely the renewable component) at this time, Prosper has yet to obtain all of the necessary Water Court decrees for this 30 year project at this time. Prosper does own and has a decree for over 5,400 af/yr of Denver Basin water underlying the project; and will obtain all of the remaining necessary renewable water and associated Water Court decrees months before any of the water included in those additional decrees is needed by the development. This commitment is demonstrated in part through Prosper's advance water planning as evidenced by this report; by Prosper's adjudication of its Denver Basin well field and ground water decree entered on December 14, 2011; and by the advance work Prosper has done with ACWWA to secure a conditional will-serve letter prior to and as a part of the current non-subdivision zoning application. Prosper understands that subsequent project land use approvals in the subdivision stages will be tied to acquiring the balance of its proposed water supply, which is the renewable component discussed in this report.

## 7.0 REFERENCES

American Water Works Association Research Foundation, 1999, *Residential End Uses of Water*.

Arapahoe County Comprehensive Plan, Adopted June 19, 2011, Revised January 15, 2002.

Colorado Division of Water Resources water well database.

Colorado Revised Statutes § 29-20-310 through 29-20-306.

Colorado Revised Statutes § 30-28-136-(1)(h)(I-II).

HRS Water Consultants, Inc., 2012, Prosper Farms Investments, LLC 1041 Submittals to Arapahoe County.

Leonard Rice Consulting Water Engineers, Inc., March 2001, Water Resource Study for Eastern Arapahoe County, Project No. 1059APR01, Appendix G of the Arapahoe County Comprehensive Plan Revised January 15, 2002.

## **TABLES**



Table 8 - Lower Arapahoe Well Data

Counter	Full Name	Permit No.	Case No.	County	pm	ts	tdir	rng	rdir	sec	q160	q40	coordsns	coordsns_d	coordsew	coordsew_d	UTM_x	UTM_y	Use	Aquifer	Annual Appr (AF)	Date Permit Issued	Date Well Const	Well Depth	tperf	bperf	Pump Rate	Static Wat
1	AMOCO PRODUCT CO	16819 F		ADAMS	S	3	S	65	W	32	SE	NE	2300	S	740	E	527337.60	4399664.90	COMMERCIAL	DENVER-ARAPAHOE	16.0			1060	0	0	20	430
2	AURORA CITY OF	25649 FR	80CW0238	ADAMS	S	3	S	64	W	21	NW	SW	1340	N	1300	W	537698.50	4403328.80	INDUSTRIAL, MUNICIPAL	ARAPAHOE	65.0	5/9/2002	6/13/2002	1208	0	0	177	282
3	AURORA CITY OF	58585 F		ADAMS	S	3	S	65	W	32	SE	NE	1563	S	142	E	527520.80	4399440.40	INDUSTRIAL, MUNICIPAL	LOWER ARAPAHOE	72.0	11/1/2002	7/15/2002	1386	0	0	106	569
4	HILL R	117802		ARAPAHOE	S	4	S	64	W	16	SE	SE	0		0		538712.70	4394252.10	DOMESTIC	ARAPAHOE	1.5	1/9/1981		0	0	0	0	0
5	KISSLER DANIEL M	118529		ARAPAHOE	S	4	S	64	W	10	NW	SW	2468	N	792	W	539171.80	4396512.70	DOMESTIC, STOCK	ARAPAHOE	1.0			0	0	0	0	0
6	PRAIRIE VIEW PROPERTY OWNERS ASSOC	26666 F	83CW0164	ADAMS	S	3	S	64	W	30	SE	SE	56	S	1132	E	535343.80	4400559.80	ALL BENEFICIAL USES	ARAPAHOE	149.9	7/19/1984	9/14/1983	1200	625	730	250	228
7	PRAIRIE VIEW PROPERTY OWNERS ASSOC	28638 F	83CW0164	ADAMS	S	3	S	64	W	30	SE	SE	56	S	1132	E	535343.80	4400559.80	MUNICIPAL	ARAPAHOE	32.1	6/27/1985	9/14/1983	1200	625	730	250	228
8	YOUNGBERG C.D.	28487 F		ARAPAHOE	S	4	S	64	W	11	NW	SE	2130	N	1980	W	541114.40	4396636.60	IRRIGATION	ARAPAHOE	16.9	6/3/1985	6/28/1986	0	0	0	110	312



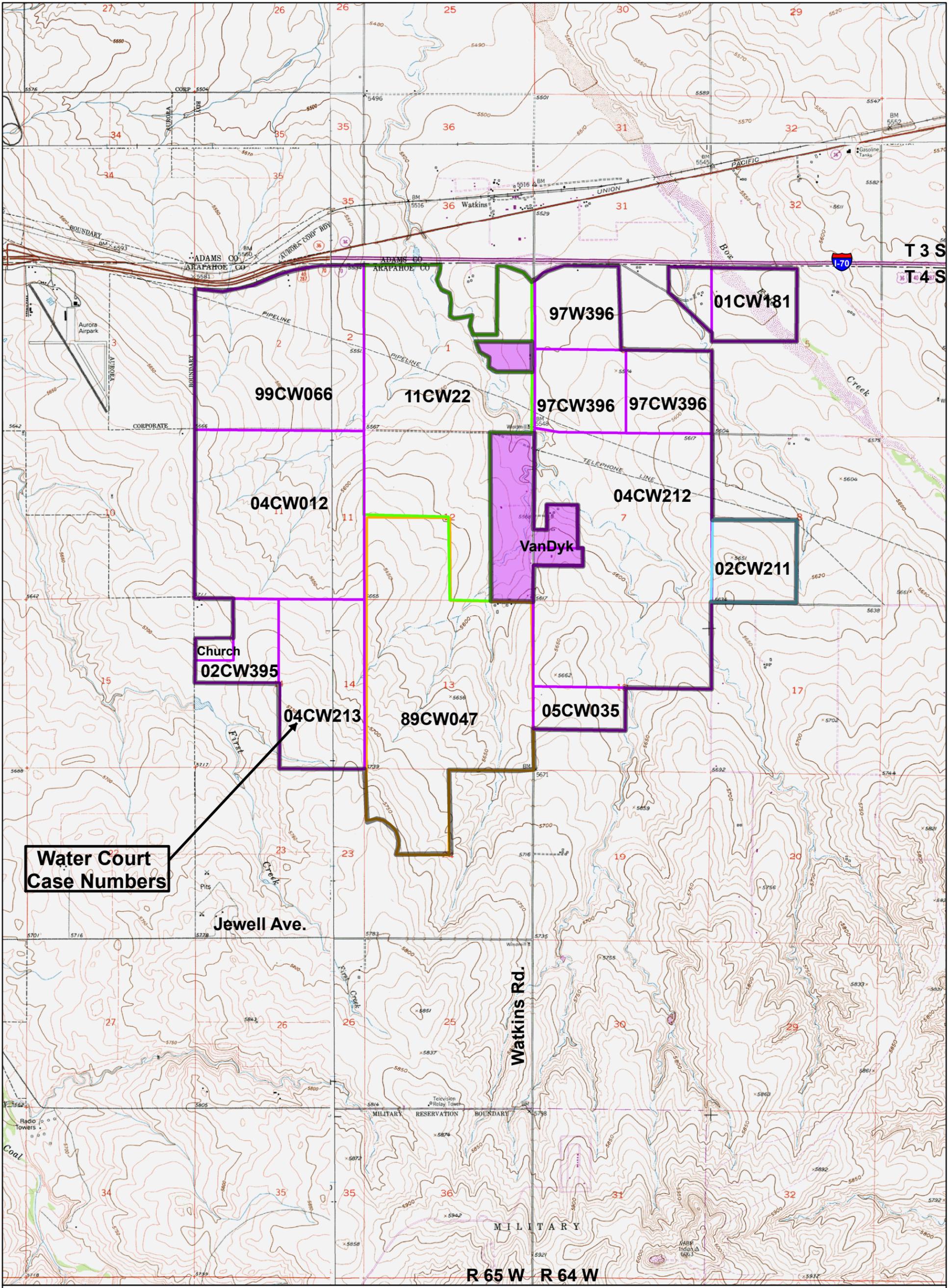
**Table 9 - Laramie Fox Hills Well Data**

Counter	Full Name	Permit No.	Case No.	County	pm	ts	tdir	rng	rdir	sec	q160	q40	coordsns	coordsns_d	coordsew	coordsew_d	UTM_x	UTM_y	Use	Aquifer	Annual Appr (AF)	Date Permit Issued	Date Well Const	Well Depth	tperf	bperf	Pump Rate	Static Wat
1	AURORA CITY OF	58584 F		ADAMS	S	3	S	65	W	32	SE	NE	1513	S	146	E	527519.70	4399425.40	ALL BENEFICIAL USES	LARAMIE FOX HILLS	55.0	11/1/2002	7/26/2002	1988	0	0	180	745
2	FOXRIDGE MOBILE HOME	15955 FR		ARAPAHOE	S	4	S	65	W	4	NW	NW	0		0		527766.10	4398763.90	MUNICIPAL	LARAMIE FOX HILLS	100.0	3/21/1986	4/27/1986	2007	0	0	143	793
3	HARVEST GROUP LTD	15956 F		ARAPAHOE	S	4	S	65	W	4	NW	NE	225	N	2530	W	528337.10	4398896.90	MUNICIPAL	LARAMIE-FOX HILLS	200.0			1950	0	0	160	0
4	HARVEST GROUP LTD	15955 F		ARAPAHOE	S	4	S	65	W	4	NW	NW	225	N	140	W	527608.60	4398895.90	MUNICIPAL	LARAMIE-FOX HILLS	200.0			2102	0	0	160	0



## FIGURES

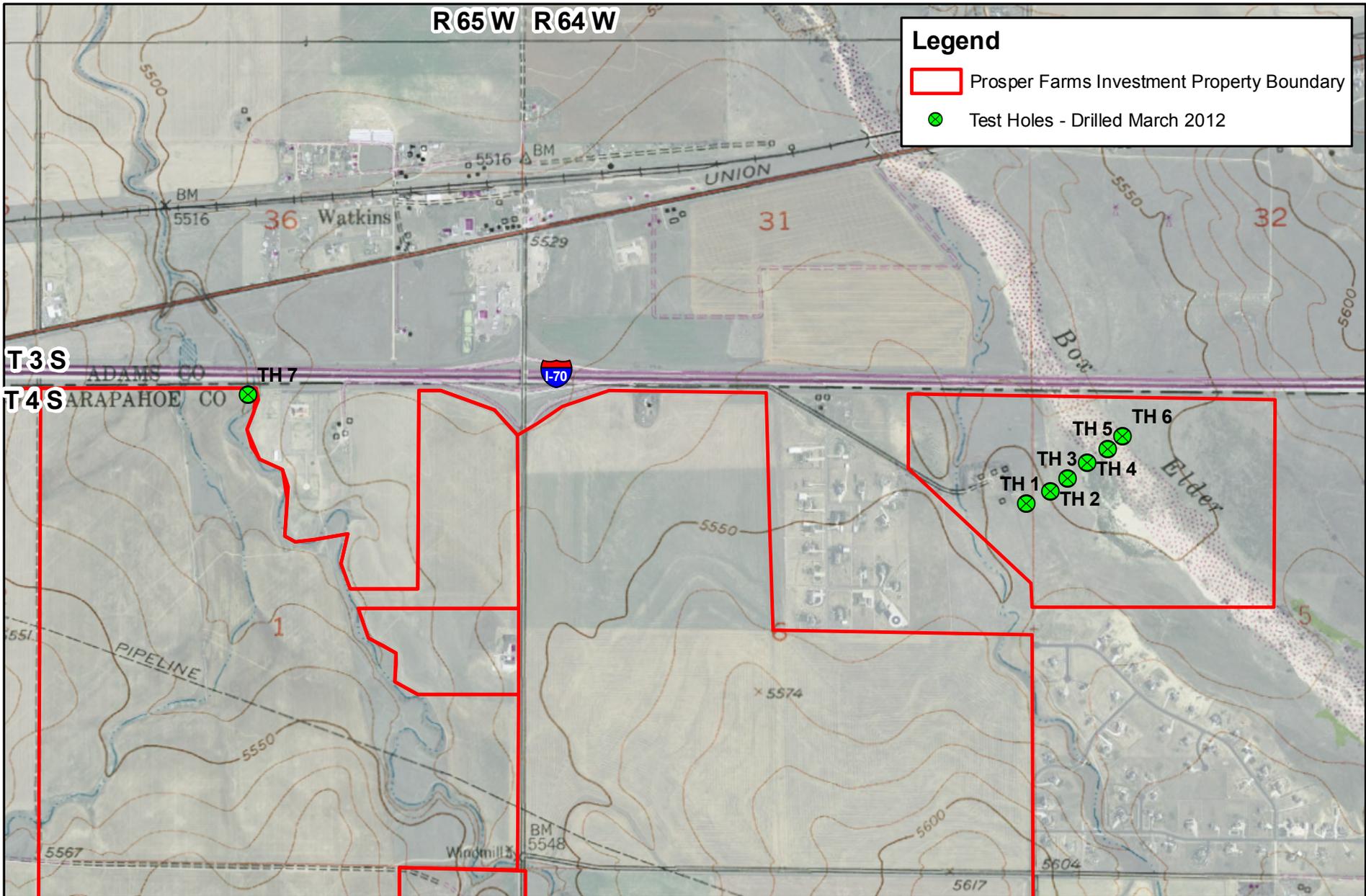




**Water Court Case Numbers**

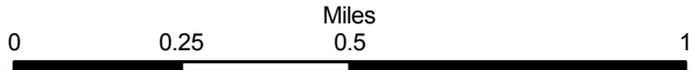
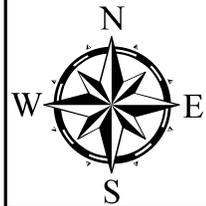


<b>Prosper Farms Investments, LLC</b>		
Figure 1 Prosper Farms Investments, LLC - Watkins Area Land		
HRS WATER CONSULTANTS, INC.		
June 2013	Job No. 04-02	FurnitureRow1.mxd



**Legend**

- Prosper Farms Investment Property Boundary
- ⊗ Test Holes - Drilled March 2012



<b>Prosper Farms Investments, LLC</b>		
Figure 2 - Prosper Farms Box Elder Creek Investigation		
<i>HRS WATER CONSULTANTS, INC.</i>		
September 2012	Job No. 04-02.1	FurnitureRow_THs.mxd

R 65 W

R 64 W

### Legend

- Prosper Farms Investment Property Boundary
- Lower Arapahoe
- ⊗ Arapahoe - Undifferentiated

T 3 S

T 4 S

T 5 S



Note: Well numbers/counters correspond to report tables by aquifer

**Prosper Farms Investments, LLC**

Figure 3 - Arapahoe Aquifer Wells

HRS WATER CONSULTANTS, INC.

Sept 2012	Job No. 04-02	FurnitureRow_Arap2.mxd
-----------	---------------	------------------------

R 65 W

R 64 W

### Legend

- Prosper Farms Investment Property Boundary
- Laramie-Fox Hills Aquifer

T 3 S

T 4 S

T 5 S

1  
4  
2  
3

Note: Well numbers/counters correspond to report tables by aquifer



<b>Prosper Farms Investments, LLC</b>		
Figure 4 - Laramie-Fox Hills Aquifer Wells		
<i>HRS WATER CONSULTANTS, INC.</i>		
September 2012	Job No. 04-02	FurnitureRow_LFH.mxd

## **APPENDICES**



## **APPENDIX A**

**Prosper Development's Compliance with  
S.B. 1141, as Codified in C.R.S. 29-20-101,  
et. seq., and as Construed by  
Douglas County District Court in  
Case No. 11CV1437**



**APPENDIX A**

---

**PROSPER DEVELOPMENT’S COMPLIANCE WITH SB 1141  
AS CODIFIED IN CRS 29-20-101, *et seq.*  
AND AS CONSTRUED BY DOUGLAS COUNTY DISTRICT COURT  
IN CASE NO. 11CV1437**

---

**REQUIREMENTS**

- **29-20-103(1) and 303(1):** Local governments must not grant preliminary or final approval of an application for rezoning or other similar application which involves new water use for more than 50 SFEs, *unless*:
  - The local government determines, in its sole discretion, that
    - The applicant has proposed a water supply; and
    - The proposed water supply is “adequate.”
- **29-20-303(2):** An applicant is not, in any event, required to own or have acquired the proposed water supply or infrastructure.
- **29-20-302(1):** An “adequate” water supply is one that will be sufficient for build-out in terms of
  - Quantity
  - Quality
  - Dependability
  - Availability
- **29-20-304(1):** An applicant must submit a water supply report authored by a water supply expert, in which the applicant proposes the water supply for the development and demonstrates that the proposed supply is adequate.
  - The water supply report must include:
    - An estimate of the water supply requirements through build-out.
    - A description of the physical sources of water supply.
    - An estimate of the amount of water yield projected from the proposed water supply under various hydrologic conditions.
    - Water conservation measures, if any, that may be implemented.
    - Water demand management measures, if any, that may be implemented; and
    - Such other information as may be required by the local government.

## COMPLIANCE

- In connection with its zoning application, Prosper Farms Investments, LLC is submitting a Water Supply Report for the Prosper Development, authored by water supply experts. The Water Supply Report:
  - Estimates the water demand through build-out to be 5,220 af/yr.
  - Describes the following proposed physical sources of water supply:
    - 1,305 af/yr of decreed nontributary water owned by Prosper. This represents 25% of the total supply and only 40% of Prosper's decreed nontributary water.
    - 1,662 af/yr of renewable water to be delivered by ACWWA via the ECCV pipeline; and from the ECCV pipeline, via a 3.5 mile pipeline to the Prosper development, representing 32% of the total supply. Requires a court-approved augmentation plan. The report also identifies proposed sources of senior augmentation water.
    - 1,837 af/yr of reclaimed wastewater arising from indoor water usage, which equals 35% of the total supply. 808 af/yr of the reclaimed wastewater is derived from indoor use of Prosper's nontributary water. Thus, Prosper currently owns 2,113 af/yr of the water that will be used to meet its projected 5,220 af/yr build-out demand (1,305 + 808 = 2,113).
    - 416 af/yr of reclaimed lawn irrigation return flows; 8% of the total supply.
  - Includes a Conditional Will-Serve Letter issued by ACWWA to Prosper.
  - Estimates the amount of water yield projected from the proposed water supply under various hydrologic conditions.
  - Describes the water conservation measures that may be implemented.
  - Describes the water demand management measures that may be implemented.
  - Demonstrates that each of the above four physical sources of supply are adequate in terms of
    - Quantity
    - Quality
    - Dependability
    - Availability

**APPENDIX B**

**C.R.S. § 29-20-103  
and  
29-20-301 through 29-20-305**



*C.R.S. 29-20-103*

COLORADO REVISED STATUTES

\*\*\* This document reflects changes passed at the Second Regular Session and First Extraordinary Session of the Sixty-Eighth General Assembly of the State of Colorado (2012) \*\*\*

TITLE 29. GOVERNMENT - LOCAL  
LAND USE CONTROL AND CONSERVATION  
ARTICLE 20. LOCAL GOVERNMENT REGULATION OF LAND USE  
PART 1. LOCAL GOVERNMENT LAND USE CONTROL ENABLING ACT

C.R.S. 29-20-103 (2012)

29-20-103. Definitions

As used in this article, unless the context otherwise requires:

(1) "Development permit" means any preliminary or final approval of an application for rezoning, planned unit development, conditional or special use permit, subdivision, development or site plan, or similar application for new construction; except that, for purposes of part 3 of this article, "development permit" is limited to an application regarding a specific project that includes new water use in an amount more than that used by fifty single-family equivalents, or fewer as determined by the local government.

(1.5) "Local government" means a county, home rule or statutory city, town, territorial charter city, or city and county.

(2) "Power authority" means an authority created pursuant to section 29-1-204.

**HISTORY:** Source: . L. 74: Entire article added, p. 353, § 1, effective May 17. L. 2001: (2) added, p. 597, § 3, effective May 30. L. 2001, 2nd Ex. Sess.: (1) amended and (1.5) added, p. 27, § 2, effective November 6. L. 2008: (1) amended, p. 1559, § 1, effective May 29.

*C.R.S. 29-20-301*

COLORADO REVISED STATUTES

\*\*\* This document reflects changes passed at the Second Regular Session and First Extraordinary Session of the Sixty-Eighth General Assembly of the State of Colorado (2012) \*\*\*

TITLE 29. GOVERNMENT - LOCAL  
LAND USE CONTROL AND CONSERVATION  
ARTICLE 20. LOCAL GOVERNMENT REGULATION OF LAND USE  
PART 3. ADEQUATE WATER SUPPLY

C.R.S. 29-20-301 (2012)

29-20-301. Legislative declaration

(1) The general assembly:

(a) Finds that, due to the broad regional impact that securing an adequate supply of water to serve proposed land development can have both within and between river basins, it is imperative that local governments be provided with reliable information concerning the adequacy of proposed developments' water supply to inform local governments in the exercise of their discretion in the issuance of development permits; and

(b) To that end, declares that while land use and development approval decisions are matters of local concern, the enactment of this part 3, to help ensure the adequacy of water for new developments, is a matter of statewide concern and necessary for the preservation of public health, safety, and welfare and the environment of Colorado.

**HISTORY:** Source: L. 2008; Entire part added, p. 1559, § 2, effective May 29.

Law reviews. For article, "Vested Property Rights in Colorado: The Legislature Rushes in Where ....", see Den. U. L. Rev. 31 (1988); for article, "Cooperative Management of Urban Growth Areas Through IGAs", see 29 Colo. Law. 85 (November 2000); for article, "Transferable Development Rights and Their Application in Colorado: An Overview", see 34 Colo. Law. 75 (March 2005).

*C.R.S. 29-20-302*

COLORADO REVISED STATUTES

\*\*\* This document reflects changes passed at the Second Regular Session and First Extraordinary Session of the Sixty-Eighth General Assembly of the State of Colorado (2012) \*\*\*

TITLE 29. GOVERNMENT - LOCAL  
LAND USE CONTROL AND CONSERVATION  
ARTICLE 20. LOCAL GOVERNMENT REGULATION OF LAND USE  
PART 3. ADEQUATE WATER SUPPLY

C.R.S. 29-20-302 (2012)

29-20-302. Definitions

As used in this part 3, unless the context otherwise requires:

(1) "Adequate" means a water supply that will be sufficient for build-out of the proposed development in terms of quality, quantity, dependability, and availability to provide a supply of water for the type of development proposed, and may include reasonable conservation measures and water demand management measures to account for hydrologic variability.

(2) "Water supply entity" means a municipality, county, special district, water conservancy district, water conservation district, water authority, or other public or private water supply company that supplies, distributes, or otherwise provides water at retail.

**HISTORY:** Source: L. 2008: Entire part added, p. 1560, § 2, effective May 29.

*C.R.S. 29-20-303*

COLORADO REVISED STATUTES

\*\*\* This document reflects changes passed at the Second Regular Session and First  
Extraordinary Session  
of the Sixty-Eighth General Assembly of the State of Colorado (2012) \*\*\*

TITLE 29. GOVERNMENT - LOCAL  
LAND USE CONTROL AND CONSERVATION  
ARTICLE 20. LOCAL GOVERNMENT REGULATION OF LAND USE  
PART 3. ADEQUATE WATER SUPPLY

C.R.S. 29-20-303 (2012)

29-20-303. Adequate water supply for development

(1) A local government shall not approve an application for a development permit unless it determines in its sole discretion, after considering the application and all of the information provided, that the applicant has satisfactorily demonstrated that the proposed water supply will be adequate. A local government shall make such determination only once during the development permit approval process unless the water demands or supply of the specific project for which the development permit is sought are materially changed. A local government shall have the discretion to determine the stage in the development permit approval process at which such determination is made.

(2) Nothing in this part 3 shall be construed to require that the applicant own or have acquired the proposed water supply or constructed the related infrastructure at the time of the application.

**HISTORY:** Source: L. 2008: Entire part added, p. 1560, § 2, effective May 29.

*C.R.S. 29-20-304*

COLORADO REVISED STATUTES

\*\*\* This document reflects changes passed at the Second Regular Session and First Extraordinary Session of the Sixty-Eighth General Assembly of the State of Colorado (2012) \*\*\*

TITLE 29. GOVERNMENT - LOCAL  
LAND USE CONTROL AND CONSERVATION  
ARTICLE 20. LOCAL GOVERNMENT REGULATION OF LAND USE  
PART 3. ADEQUATE WATER SUPPLY

C.R.S. 29-20-304 (2012)

29-20-304. Water supply requirements

(1) Except as specified in subsections (2) and (3) of this section, an applicant for a development permit shall submit estimated water supply requirements for the proposed development in a report prepared by a registered professional engineer or water supply expert acceptable to the local government. The report shall include:

(a) An estimate of the water supply requirements for the proposed development through build-out conditions;

(b) A description of the physical source of water supply that will be used to serve the proposed development;

(c) An estimate of the amount of water yield projected from the proposed water supply under various hydrologic conditions;

(d) Water conservation measures, if any, that may be implemented within the development;

(e) Water demand management measures, if any, that may be implemented within the development to account for hydrologic variability; and

(f) Such other information as may be required by the local government.

(2) If the development is to be served by a water supply entity, the local government may allow the applicant to submit, in lieu of the report required by subsection (1) of this section, a letter prepared by a registered professional engineer or by a water supply expert from the water supply entity stating whether the water supply entity is willing to commit and its ability to provide an adequate water supply for the proposed development. The water supply entity's engineer or expert shall prepare the letter if so requested by the applicant. At a minimum, the letter shall include:

(a) An estimate of the water supply requirements for the proposed development through build-out conditions;

(b) A description of the physical source of water supply that will be used to serve the proposed development;

(c) An estimate of the amount of water yield projected from the proposed water supply under various hydrologic conditions;

(d) Water conservation measures, if any, that may be implemented within the proposed development;

(e) Water demand management measures, if any, that may be implemented to address hydrologic variations; and

(f) Such other information as may be required by the local government.

(3) In the alternative, an applicant shall not be required to provide a letter or report identified pursuant to subsections (1) and (2) of this section if the water for the proposed development is to be provided by a water supply entity that has a water supply plan that:

(a) Has been reviewed and updated, if appropriate, within the previous ten years by the governing board of the water supply entity;

(b) Has a minimum twenty-year planning horizon;

(c) Lists the water conservation measures, if any, that may be implemented within the service area;

(d) Lists the water demand management measures, if any, that may be implemented within the development;

(e) Includes a general description of the water supply entity's water obligations;

(f) Includes a general description of the water supply entity's water supplies; and

(g) Is on file with the local government.

**HISTORY:** Source: L. 2008: Entire part added, p. 1560, § 2, effective May 29.

*C.R.S. 29-20-305*

COLORADO REVISED STATUTES

\*\*\* This document reflects changes passed at the Second Regular Session and First Extraordinary Session of the Sixty-Eighth General Assembly of the State of Colorado (2012) \*\*\*

TITLE 29. GOVERNMENT - LOCAL  
LAND USE CONTROL AND CONSERVATION  
ARTICLE 20. LOCAL GOVERNMENT REGULATION OF LAND USE  
PART 3. ADEQUATE WATER SUPPLY

C.R.S. 29-20-305 (2012)

29-20-305. Determination of adequate water supply

(1) The local government's sole determination as to whether an applicant has a water supply that is adequate to meet the water supply requirements of a proposed development shall be based on consideration of the following information:

(a) The documentation required by section 29-20-304;

(b) If requested by the local government, a letter from the state engineer commenting on the documentation required pursuant to section 29-20-304;

(c) Whether the applicant has paid to a water supply entity a fee or charge for the purpose of acquiring water for or expanding or constructing the infrastructure to serve the proposed development; and

(d) Any other information deemed relevant by the local government to determine, in its sole discretion, whether the water supply for the proposed development is adequate, including, without limitation, any information required to be submitted by the applicant pursuant to applicable local government land use regulations or state statutes.

**HISTORY:** Source: L. 2008: Entire part added, p. 1562, § 2, effective May 29.



## **APPENDIX C**

**C.R.S. 30-28-136**



FOCUS™ Terms

Search Within Original Results (1 - 1)

Advanced...

View Tutorial

View

Full

1 of 1

Book Browse

**C.R.S. 30-28-136** (Copy w/ Cite)

Pages:4

C.R.S. 30-28-136

## COLORADO REVISED STATUTES

\*\*\* This document reflects changes passed at the Second Regular Session and First Extraordinary Session of the Sixty-Eighth General Assembly of the State of Colorado (2012) \*\*\*

TITLE 30. GOVERNMENT - COUNTY  
COUNTY PLANNING AND BUILDING CODES  
ARTICLE 28. COUNTY PLANNING AND BUILDING CODES  
PART 1. COUNTY PLANNING

C.R.S. 30-28-136 (2012)

## 30-28-136. Referral and review requirements

(1) Upon receipt of a complete preliminary plan submission, the board of county commissioners or its authorized representative shall distribute copies of prints of the plan as follows:

(a) To the appropriate school districts;

(b) To each county or municipality within a two-mile radius of any portion of the proposed subdivision;

(c) To any utility, local improvement and service district, or ditch company, when applicable;

(d) To the Colorado state forest service, when applicable;

(e) To the appropriate planning commission;

(f) To the local conservation district board within the county for explicit review and recommendations regarding soil suitability, floodwater problems, and watershed protection. Such referral shall be made even though all or part of a proposed subdivision is not located within the boundaries of a conservation district.

(g) When applicable, to the county or district public health agency or the state department of public health and environment for its review of the on-lot sewage disposal reports, for review of the adequacy of existing or proposed sewage treatment works to handle the estimated effluent, and for a report on the water quality of the proposed water supply to serve the subdivision. The department of public health and environment or county or district public health agency to which the plan is referred may require the subdivider to submit additional engineering or geological reports or data and to conduct a study of the economic feasibility of a sewage treatment works prior to making its recommendations. No plan shall receive the approval of the board of county commissioners unless the department of public health and environment or county or district public health agency to which the plan is referred has made a favorable recommendation regarding the proposed method of sewage disposal.

(h) (I) To the state engineer for an opinion regarding material injury likely to occur to decreed

water rights by virtue of diversion of water necessary or proposed to be used to supply the proposed subdivision and adequacy of proposed water supply to meet requirements of the proposed subdivision. If the state engineer finds such injury or finds inadequacy, he shall express such finding in an opinion in writing to the board of county commissioners, stating the reason for his finding, including, but not limited to, the amount of additional or exchange water that may be required to prevent such injury. In the event the subdivision is approved notwithstanding the state engineer's opinion, the subdivider shall furnish to all potential purchasers a copy of the state engineer's opinion prior to the sale or a synopsis of the opinion; except that the subdivider need not supply the potential purchaser with a copy of such opinion or synopsis if, in the opinion of the board of county commissioners, the subdivider has corrected the injury or inadequacy set forth in the state engineer's finding.

(II) A municipality or quasi-municipality, upon receiving the preliminary plan designating said municipality or quasi-municipality as the source of water for a proposed subdivision, shall file, with the board of county commissioners and the state engineer, a statement documenting the amount of water which can be supplied by said municipality or quasi-municipality to proposed subdivisions without causing injury to existing water rights. The state engineer shall file, with said board of county commissioners, written comments on the report. If, in the judgment of the state engineer, the report is insufficient to issue an opinion, the state engineer shall notify the board of county commissioners to this effect, indicating the deficiencies.

(i) To the Colorado geological survey for an evaluation of those geologic factors that would have a significant impact on the proposed use of the land; except that, upon written request from the board of county commissioners or the board's authorized representative, the Colorado geological survey may exempt any preliminary plan from this referral and review requirement.

(2) The agencies named in this section shall make recommendations within twenty-one days after the mailing by the county or its authorized representative of such plans unless a necessary extension of not more than thirty days has been consented to by the subdivider and the board of county commissioners of the county in which the subdivision area is located. The failure of any agency to respond within twenty-one days or within the period of an extension shall, for the purpose of the hearing on the plan, be deemed an approval of such plan; except that, where such plan involves twenty or more dwelling units, a school district shall be required to submit within said time limit specific recommendations with respect to the adequacy of school sites and the adequacy of school structures.

(3) The provisions of this part 1 shall not modify the duties or enlarge the authority of the state engineer or the division engineers nor divest the water courts of jurisdiction over actions concerning water right determinations and administration; neither shall any opinion of the state engineer submitted under subsection (1) (h) of this section nor any finding by a board of county commissioners concerning subdivision water supply matters create any presumption concerning injury or noninjury to water rights; and neither the state engineer's opinion nor the finding of the board of county commissioners may be used as evidence in any administrative proceeding or in any judicial proceeding concerning water right determinations or administration.

(4) Repealed.

**HISTORY:** Source: L. 72: p. 504, § 8. C.R.S. 1963: § 106-2-37.L. 73: pp. 781, 1087, 1088, § 2, 1, 1.L. 75: (1)(h) R&RE, p. 1002, § 1, effective July 18.L. 77: (2) amended, p. 1453, § 3, effective May 24.L. 92: (2) amended, p. 966, § 7, effective June 1.L. 94: (1)(g) amended, p. 2801, § 561, effective July 1.L. 2002: (1)(f) amended, p. 518, § 14, effective July 1.L. 2005: (4) repealed, p. 667, § 1, effective June 1.L. 2010: (1)(g) amended, (HB 10-1422), ch. 419, p. 2119, § 167, effective August 11.L. 2012: (1)(i) amended, (HB 12-1282), ch. 178, p. 641, § 1, effective August 8.

Cross references: For duties of the state geologist upon receipt of copies of prints of the plans, see § 34-1-103 (4).

#### ANNOTATION

Law reviews. For article, "1974 Land Use Legislation in Colorado", see 51 Den. L.J. 467 (1974). For article, "Property Tax Incentives for Implementing Soil Conservation Programs Under Constitutional Taxing Limitations", see 59 Den. L.J. 485 (1982).

Zoning and subdivision regulations are separate and distinct legislation and serve different purposes. *Shoptaugh v. Bd. of County Comm'rs*, 37 Colo. App. 39, 543 P.2d 524 (1975).

A subdivider must first meet zoning regulations and then additionally must comply with state and county subdivision regulations. *Shoptaugh v. Bd. of County Comm'rs*, 37 Colo. App. 39, 543 P.2d 524 (1975).

This section is designed to allow a planning commission to make a decision on a preliminary plat without waiting indefinitely for agencies' reports. *Shoptaugh v. Bd. of County Comm'rs*, 37 Colo. App. 39, 543 P.2d 524 (1975).

Authority to act on reports implicit. If a planning department or a board of county commissioners has no authority to consider and act on reports required by this section, particularly where they indicate a hazard to the public, then the general purpose to be served by enacting the regulations would be vitiated. *Shoptaugh v. Bd. of County Comm'rs*, 37 Colo. App. 39, 543 P.2d 524 (1975).

There was no error or violation of petitioner's due process right in a board's consideration of late agency reports. *Shoptaugh v. Bd. of County Comm'rs*, 37 Colo. App. 39, 543 P.2d 524 (1975).

A subdivision proposal may be denied based upon a finding of a lack of available schools to serve the residents of the proposed new development. *County Comm'rs of Douglas County v. Bainbridge*, 929 P.2d 691 (Colo. 1996).

Board of county commissioners did not abuse its discretion when it did not resubmit plans for a subdivision to certain agencies for additional comment and review before granting final approval. Once the board has satisfied the requirements of the statute by submitting the proposed plans for comment, a decision whether or not to require additional comments is within the sound discretion of that board. *Save Park County v. Bd. of County Comm'rs*, 990 P.2d 35 (Colo. 1999).

Board of county commissioners acted within its discretion when, 11 years after a subdivision plan was proposed, it did not seek supplemental information from all agencies, but instead sought any supplemental information it found necessary to reach an informed decision. *Save Park County v. Bd. of County Comm'rs*, 990 P.2d 35 (Colo. 1999).

View

1 of 1

Book Browse

**C.R.S. 30-28-136** (Copy w/ Cite)

Pages: 4

In

About LexisNexis | Privacy Policy | Terms & Conditions | Contact Us  
Copyright © 2012 LexisNexis, a division of Reed Elsevier Inc. All rights reserved.



## **APPENDIX D**

**Updated Memorandum Regarding Subdivisions  
dated March 16, 2005**



March 16, 2005

MEMORANDUM

TO: ALL COUNTY LAND USE PLANNING DIRECTORS

FROM: DICK WOLFE, ASSISTANT STATE ENGINEER

SUBJECT: UPDATED MEMORANDUM REGARDING SUBDIVISIONS

Attached is a memorandum from Hal Simpson, State Engineer, that provides important information regarding actions that will be taken by the State Engineer's Office ("SEO") when reviewing subdivision water supply plans. This memorandum replaces the one that was previously sent to County Planning Directors, dated August 7, 1995.

I ask you and your staff to read this memorandum and become familiar with the actions that will be taken by the SEO. The information in this memorandum is a valuable guide that will save time for your staff, SEO staff, and especially the developers that we all serve. For ease of reading, the memorandum is organized as follows:

- **Memorandum** from Hal Simpson regarding subdivision review performed by the SEO (2 pages)
- **Attachment A** – Information requirements of the SEO for the four different "types" of water sources (5 pages)
- **Attachment B** – Guidelines for the county to evaluate a water supply for a land use action that does not involve a subdivision (3 pages)
- **Attachment C** – *WATER SUPPLY INFORMATION SUMMARY FORM* (1 page)
- **Attachment D** – State map showing the Denver Basin and the Designated Ground Water Basins

We recommend that a copy of the memorandum and the Attachments A, C and D be provided to all parties that plan to subdivide property in your county. This letter will be placed on our website. If you have further questions, please call the SEO in Denver and ask to talk to me or the Team Leader for your water division.

March 4, 2005

MEMORANDUM

TO: ALL COUNTY LAND USE PLANNING DIRECTORS

FROM: HAL SIMPSON, STATE ENGINEER

SUBJECT: STATE ENGINEER'S ACTIONS ON PROPOSED WATER SUPPLIES FOR LAND USE ACTIONS

On August 7, 1995, I sent a memorandum to the Land Use Planning Directors for each county in the state. The memorandum addressed the State Engineer's responsibilities in providing "an opinion regarding material injury likely to occur to decreed water rights by virtue of diversion of water necessary or proposed to be used to supply the proposed subdivision and adequacy of proposed water supply to meet requirements of the proposed subdivision" as required under Section 30-28-136(h)(l) C.R.S. The primary objective of that memo was to inform the Land Use Planning Directors and their staff ("County") that effective August 31, 1995, the State Engineer's Office ("SEO") would no longer respond to comments regarding county land use actions that do not involve the subdivision of land as defined in Section 30-28-101(10)(a) C.R.S. ("Subdivision"). The reason I adopted that approach in 1995 was to ensure that my staff would be able to satisfy the statutory requirement of responding to those land use actions that do meet the definition of a Subdivision.

In addition to explaining that approach, the memorandum provided a *Water Supply Information Summary* form and Guidelines for the County's use in determining exempt well permit availability in situations that did not involve a Subdivision.

I find it is appropriate to update the information provided in that memorandum. This memorandum supercedes the memorandum dated August 7, 1995. County land use planning directors and their staff should read this memorandum and become familiar with the content. **A copy of this memorandum should be provided to all developers that are submitting a water supply plan to the county. This memorandum provides valuable information that will guide the developer when creating a water supply plan for a subdivision and reviewing this memorandum will save the developer valuable time and resources in many cases.**

**SUBDIVISION WATER SUPPLY PLAN REVIEW**

The SEO will continue to provide timely review and an opinion regarding material injury and adequacy for water supply plans for Subdivisions as those water supply plans are submitted to the SEO by referral from the County. The opinion will be completed within the statutory 21-day requirement. The SEO'S Water Supply Plan Review Requirements For Subdivisions are found in Attachment A on Page 3.

The SEO will not respond to water supply plans that are submitted by parties other than the County. This includes amended water supply plans that address concerns raised by the SEO in a previous response. Those amended plans must also be submitted through the County.

The SEO has no statutory responsibility to review land use actions that do not involve the subdivision of land as defined in Section 30-28-101(10)(a). These actions include, but are not limited to lot line adjustments, zone change requests, special use of land, division by exemption, and cluster developments. To assist the County in evaluating the water supply for these 'non-Subdivision' land use actions, this memorandum includes water supply evaluation guidelines in Attachment B, Page 8. If the County finds it is appropriate to submit a written request concerning a specific 'non-Subdivision' land use action, the SEO will perform a cursory review and provide only informal comments regarding the proposed water supply. Those comments will identify any concerns or issues that the SEO identifies through cursory review that may present themselves at such time that the developer of the subject land implements the water supply. The comments will not state an opinion on the adequacy of the water supply or the ability of the water supply plan to satisfy any County regulations or requirements. The comments cannot be used to guarantee a viable water supply plan or infrastructure, the issuance of a well permit, or physical availability of water. If the SEO does not identify concerns or issues related to the proposed water supply, the SEO will respond with no comment regarding the water supply. The response will also state that the SEO does not necessarily take the position that the water supply plan is valid.

Therefore, each referral submitted to the SEO must clearly identify whether the proposed action is a Subdivision or does not qualify as a Subdivision according to the definition in C.R.S. 30-28-101(10)(a).

#### **WATER SUPPLY PLAN INFORMATION FOR SUBDIVISIONS**

The water supply plan must be included in all Subdivision referrals from the County. That plan must identify the Subdivision's estimated water supply requirements and demonstrate the adequacy of the proposed water supply. The *WATER SUPPLY INFORMATION SUMMARY* form that is included with this memo as Attachment C on Page 11 may be used as a guide and in many cases will be sufficient. However, for many subdivisions the water supply plan must include a water supply report. The Water Supply Information Summary or the report should identify, at a minimum: the number of lots; the type of use and the demand, by lot; and the total water requirement. The SEO will review the Water Supply Information Summary or water supply report to ensure the water use values are reasonable for the described uses and are consistent with SEO accepted demand/consumptive use values unless specific information is supplied to support different use values or the values are indicated in a court approved augmentation plan or, for a subdivision located in a Designated Basin, a Ground Water Commission approved replacement plan. The SEO may consider, but is not obligated to follow County Land Development Codes or Rules.

The maps in Attachment D on Page 12 show the boundaries of the Designated Basins and the approximate locations of the Denver Basin bedrock aquifers.

## ATTACHMENT A

The SEO will apply specific review criteria to water supply plans that rely on sources of water as listed below:

### SEO'S WATER SUPPLY PLAN REVIEW REQUIREMENTS FOR SUBDIVISIONS

#### 1. Source is a Municipality or Quasi-Municipality

If the water supply is to be provided by a municipality or quasi-municipality (i.e. a Water District, a Water and Sanitation District, etc.), the SEO will review the submittal to ensure that it includes:

- a. A letter of commitment from the municipality or quasi-municipality referencing the subdivision name (as submitted to the county) and a level of commitment in terms of uses to be served.
- b. As required by C.R.S. 30-28-136(1)(h)(II), a report from the municipality or quasi-municipality documenting the amount of water that can be supplied to the subdivision, containing the following:
  - i. A summary of the water rights owned and controlled by the municipality.
  - ii. The anticipated yield of these rights in both an average and dry year.
  - iii. The present demand on the municipality, and the anticipated demand due to commitments for service entered into by the municipality that are not yet supplied.
  - iv. The amount of uncommitted firm supply the municipality has available for future commitment and development.
  - v. A map of the municipality's service area.

The above information should be provided in a manner that demonstrates that the municipality has sufficient water resources to meet its commitments in terms of an overall annual water supply and daily availability. Note that, for many of these providers, the SEO maintains files that document the firm water supplies and the amount of water that has been committed to subdivisions. If that information is on file, this statement may not be necessary.

The SEO may request updated information from the municipality or quasi-municipality if it appears the information has not been updated within three calendar years, or when the commitments reach a total that is close to the firm yield (approximately 90 percent)

- c. Proposed uses that correspond to the uses of the municipality or quasi-municipality's water rights.
- d. For a Subdivision located in a Designated Basin, proposed place of use (the Subdivision) that corresponds with the place of use listed on Permit or Determination of Water Right.

#### 2. Source is Wells Withdrawing Tributary Ground Water or any Designated Ground Water from a Non-Denver Basin Aquifer

If the water supply is to be provided by wells withdrawing tributary ground water or designated ground water from any non-Denver Basin aquifer:

- a. The SEO will review the submittal to ensure that all uses are consistent with the uses in a court-decreed augmentation plan or, if in a designated basin, the uses in a commission approved replacement plan.

(Note: For areas outside of the Designated Basins, a source of water that is approved through a substitute water supply plan is not an acceptable water supply for inside domestic uses; a court decreed augmentation plan is required. However, if the water supply plan includes lawn and garden irrigation from a source that is not yet subject of a court-decreed augmentation plan, the SEO will evaluate that component of the water supply plan for adequacy and potential injury independently, however, the source of water to be used for lawn and garden irrigation may be subject to curtailment until the developer acquires a court-approved augmentation plan for that source. The SEO will not comment unfavorably on the entire plan due to failure of that one aspect.)

- b. If in a Designated Basin, the SEO will review the submittal to ensure that the proposed place of use (the subdivision) corresponds with the place of use listed on the well permit.
- c. State statute requires that the SEO provide an opinion regarding the water supply's adequacy to meet the requirements of a proposed subdivision [C.R.S. 30-28-136(h)(l)]. Therefore, the SEO will review the submittal to ensure that there is evidence that a water supply is physically adequate. This evidence should be in the form of a hydrologist's or geologist's report that may include information from a test well or wells.

**3. Source is Individual, On-lot, Exempt/Small Capacity Wells Withdrawing Denver Basin Ground Water Considered to be Nontributary\*\*, or Other Ground Water Determined to be Nontributary. The Water that has not been adjudicated or is not Subject of a Determination of Water Right**

If the water supply is to be provided by individual on-lot wells from a Denver Basin aquifer and is considered nontributary\*\*, or a formation that is determined to be nontributary by statutory definition [C.R.S. 37-90-103(10.5)], and the ground water has not been adjudicated or is subject of a Determination of Water Right, the SEO will review the water supply plan to ensure that:

(\*\* note: for a subdivision located in a Designated Basin, the subdivision may also use a source that is not-nontributary with a 4 percent replacement requirement, without the need for a replacement plan)

- a. The developer has identified a specific source (for example, Dawson, Denver, Arapahoe, Laramie-Fox Hills),
- b. The developer has properly quantified the amount of water using aquifer characteristics that are consistent with the Denver Basin Rules or site-specific information that has been validated by the SEO geotechnical staff.

- c. The subdivision's proposed water supply has not been previously allocated through existing decrees, well permits, pre-Senate Bill 213 type wells, Determinations of Water Rights, or other claims to the water.
- d. The amount of water available annually, on the basis of an aquifer life of 100 years, is greater than or equal to the amount of water required.

(Note: The amount of water available annually should be quantified as described in Rule 8 of the Statewide Nontributary Ground Water Rules. **The water supply plan must ensure that the smallest parcel in the subdivision has adequate land area such that the calculation of the water available underlying that land area is sufficient to satisfy its needs.** Small parcels may not 'borrow' land area from larger parcels to increase the amount of water available to the small parcel since the well permit will ultimately be issued pursuant to C.R.S. 37-92-602(3)(b)(I) or 37-90-105(3)(c), which requires a land area evaluation. If the developer cannot provide a water supply to the smaller parcels because of this, the developer may pursue a water court decree or Determination of Water Right that will "separate" the water from the land and allow it to be deeded to individual landowners in the amounts necessary to provide a water supply.

Additionally, to satisfy a county's "300-year water supply approach", the developer may state that each lot will use one aquifer for a portion of the 300-year period (the first 100 years), then, a deeper aquifer for subsequent portions of the 300-year period (the remaining 200 years). This approach is acceptable, however, it is entirely the developer's responsibility to identify, by lot number, the aquifer that will be used for each lot and for which period of time. In no case will the SEO approve a plan where the engineer makes that determination in the response to the County or where that determination is left to the well permit applicant or permit evaluator in the future. In this situation, the SEO response will state that the lot owners should be notified through plat notes or other means of the specific restrictions.)

- e. The amount of water available considers any 300-year water supply approach or similar approach that is currently used by the referring county.
- f. The proposal meets all applicable Ground Water Management District rules, if located within a Designated Basin.

**4. Source is from a Denver Basin Aquifer that has been Decreed or, for the Designated Basins, is Subject of a Determination of Water Right**

If the ground water is from a Denver Basin aquifer and is considered to be nontributary or not-nontributary and has been adjudicated by Water Court or has a Determination of Water Right/Permit issued by the Ground Water Commission, the SEO will review the water right to ensure that:

- a. The developer has identified a specific source (for example, Dawson, Denver, Arapahoe, or Laramie-Fox Hills aquifer),
- b. The amount of water available annually, according to the court-approved decree or Commission-approved Determination of Water Right/Permit, is

greater than or equal to the amount of water required for the entire subdivision.

(Note: The adjudication/quantification of nontributary or not nontributary ground water "separates" the ownership of the water from the land. Therefore, individual lot owners that apply for well permits will require a 'special warranty deed' or other document by which ownership of an amount of water is transferred to the lot owner from the original landowner. Such a deed will not be necessary if a Homeowner's Association ("HOA") will be created to take ownership of the water rights and the HOA will have the necessary mechanism to convey the water rights to members of the HOA. The water supply plan must identify whether water will be deeded to individual lot owners or owned by a HOA. In comments to the County, the SEO will add a note that indicates whether there will be a "HOA" that will take ownership of the water rights and to which each homeowner must belong. If so, well permit applicants will not require a "special warranty deed" granting them the rights to use the amount of water identified in the water supply plan. If water will be deeded to individual lot owners, well permit applicants will be required to provide to this office a copy of the 'special warranty deed' or other document conveying the water right to the lot owner.)

- c. The proposed uses correspond to the uses of the vested water rights to be used.
- d. If in a Designated Basin, the proposed place of use (the Subdivision) corresponds with the place of use listed on the well permit or Determination of Water Right.
- e. The water supply plan is consistent with the specific terms and conditions of a court-approved augmentation plan or Ground Water Commission-approved replacement plan, if one was developed.
- f. The amount of water available considers any 300-year water supply approach or similar approach that is currently used by the referring county.

(Note: To satisfy a county's "300-year water supply approach", the developer may state that each lot will use one aquifer for a portion of the 300-year period (the first 100 years), then, a deeper aquifer for subsequent portions of the 300-year period (the remaining 200 years). Or, a developer may state that a predetermined number of lots will use a shallower aquifer while other lots will use a deeper aquifer. These approaches are acceptable, however, it is entirely the developer's responsibility to identify, by lot number, the aquifer that will be used for each lot and for which period of time. In no case will the SEO approve a plan where the engineer makes that determination in the response to the County or where that determination is left to the well permit applicant or permit evaluator in the future. In these situations, the SEO response will state that the lot owners should be notified through plat notes or other means of the specific restrictions.)

Additionally, the following comments apply to the four SOURCE OF WATER SUPPLY categories listed above.

1. If the water supply plan relies on an adjudicated water right, and the decree for that water right is not yet final, the SEO will not include consideration of the water that is subject of that water right. Similarly, if the water supply plan relies on water rights, changes to water rights, or replacement plans that are pending review by the Ground Water Commission but have not been approved, the SEO will not include consideration of the water that is subject of that water right.
2. The SEO's determination that a water supply is "adequate" requires evidence that volume and flow rate required is physically and legally available, but does not necessarily include infrastructure beyond the wellhead, storage vessel, diversion or release point. For example, the SEO does not comment on the design of the piping and pump stations needed to deliver water throughout the system at required pressures.
3. The adequacy of a water supply plan in the Denver Basin aquifers is evaluated using estimates of legally available water based on information available at the SEO and may not necessarily reflect the physical availability of water. Water in the Denver Basin aquifers is allocated based on a 100-year aquifer life under the provisions of C.R.S. 37-90-137(4)(b)(I). For planning purposes the county should be aware that the economic life of a water supply based on wells in a given Denver Basin aquifer may be less than the 100 years indicated due to anticipated water level declines. Furthermore, the water supply plan should not rely solely upon non-renewable aquifers. Alternative renewable water resources should be acquired and incorporated in a permanent water supply plan that provides future generations with a water supply.

## ATTACHMENT B

### WATER SUPPLY EVALUATION GUIDELINES FOR LAND USE ACTIONS THAT DO NOT INVOLVE A SUBDIVISION

The SEO will not provide a comprehensive opinion for land use actions that do not involve a Subdivision. In these cases the developer must rely on an engineering consultant or use the guidelines included below. In any case, the decision to issue a well permit will not be evaluated until a well permit application has been submitted to the SEO. In situations where the land use action will be creating a parcel of land (for example, recorded exemption), the SEO cannot accept well permit applications until the land use action is final.

These guidelines may be used by your staff or the developer to make a preliminary determination of the availability of a well permit for parcels addressed in land use actions that do not involve a subdivision of land and which rely on a well as a water supply. The SEO will evaluate well permits according to the criteria described below using rules and statutes in place at the time of application. Well permits of the types described below can often be approved under the 2004 statutes when the land involved meets the respective parcel definition and the proposed well will meet the water use and return flow conditions stated below. Note the SEO's evaluation process may find that there is a well on the subject parcel or on a neighboring parcel that may 'encumber' the land on the parcel and prevent the SEO from issuing a well permit.

Below are the possible categories of land use actions that do not involve a subdivision and the types of well permit for which the SEO may evaluate an application:

1. **a) 'Pre June 1, 1972' Parcels; b) Parcels created after June 1, 1972 to which the statutory definition of a subdivision does not apply; or c) Parcels that the County has "Exempted" from the subdivision process**

#### Description

- a. A parcel that was created prior to June 1, 1972 (the date on which SB72-35 was enacted). A well permit applicant will need to submit proof that the parcel existed prior to June 1, 1972. This may be in the form a plat or deed of transfer dated before June 1, 1972. The documentation must include a legal description of the parcel. Or,
- b. A parcel that was created after June 1, 1972 and satisfies the criteria in C.R.S. 30-28-101(10)(c). Or,
- c. A parcel that was created after June 1, 1972 and has been exempted from the "subdivision process" by the County as described in C.R.S. 30-28-101(10)(d). A well permit applicant will need to submit proof that the parcel has been exempted from the "subdivision process" in the form a county resolution or plat with the proper documentation.

#### Well Permit Evaluation for Areas Outside a Designated Basin

- a. The SEO will evaluate this type of parcel for a Household Use Only well permit.
- b. If the applicant requests, the SEO will evaluate this type of parcel for a 'Commercial Exempt' well permit (Drinking and Sanitary uses only in a single business, not to exceed 0.33 acre-feet annually and not to be used for any outside purposes.)

- c. If the parcel overlies a nontributary Denver Basin aquifer or a not nontributary Denver Basin aquifer with a "four-percent replacement" requirement, the landowner has the potential to get a well permit for additional dwellings and outside domestic uses.
- d. If the parcel overlies a nontributary Denver Basin aquifer, the landowner has the potential to get a well permit for commercial uses beyond Drinking and Sanitary uses and 0.33 acre-feet annually.

#### **Well Permit Evaluation for Areas Inside a Designated Basin**

- a. The SEO will evaluate this type of parcel for a residential well permit for no more than three single-family dwellings, including the normal operations associated with such dwellings including the irrigation of not more than one acre of land; subject to all applicable Ground Water Management District Rules if the parcel is located within such a district.
- b. If the applicant requests, the parcel may be evaluated for small-capacity commercial use subject to all applicable Ground Water Management District rules.

## **2. "35-acre" Parcels**

### **Description**

A parcel that is 35 acres or larger and not composed of multiple subdivided parcels. A well permit applicant must submit a legal description of the parcel.

### **Well Permit Evaluation for Areas Outside a Designated Basin**

- a. For most areas of the state, the SEO will evaluate this type of parcel for household use and outside uses. Unless the applicant specifically requests livestock uses only, the SEO will evaluate the well permit for use in up to three single-family dwellings, one acre of home lawn and garden irrigation, domestic animal watering and livestock watering.
- b. If the applicant requests, the SEO will evaluate this type of parcel for a 'Commercial Exempt' well permit (Drinking and Sanitary uses only in a Single business, not to exceed 0.33 acre-feet annually)
- c. If the parcel overlies a nontributary Denver Basin aquifer or another aquifer determined to be nontributary, the landowner has the potential to get a well permit for commercial uses beyond Drinking and Sanitary uses and 0.33 acre-feet annually.

### **Well Permit Evaluation for Areas Inside a Designated Basin**

- a. The SEO will evaluate this type of parcel for a residential well permit for no more than three single-family dwellings, including the normal operations associated with such dwellings including the irrigation of not more than one acre of land; subject to all applicable Ground Water Management District Rules if the parcel is located within such a district.

- b. If the applicant requests, the parcel may be evaluated for small-capacity commercial use subject to all applicable Ground Water Management District rules.

### 3. 'Cluster Development' Parcels

#### Description:

A parcel that satisfies the statutory provisions of C.R.S. 30-28-401, 30-28-402, 30-28-403, and 30-28-404, as amended in 2001. The County may approve cluster developments in accordance with a rural land use planning process enacted and adopted by the County. At least two-thirds of the total tract area must be reserved for preservation of open space. The number of residential lots may not exceed one lot for each seventeen and one-half acres of total tract area.

No later than ten days after County approval of a cluster development, the County shall notify the SEO of such approval and shall provide a copy of the approved rural land use plan that includes the cluster development. For administrative purposes, the plan must include a copy of a survey plat that describes the entire land area associated with the plan, identifies the set aside open space area, and describes the residential lots within the land area..

#### Well Permit Evaluation for Areas Outside a Designated Basin

The SEO will evaluate this type of parcel for household use and outside uses. The uses of the well will be limited by a permitted maximum annual amount. One well permit may be obtained for each residential lot. The total amount of water available to all lots in the cluster development is equal to one acre-foot for each full 35-acre-parcel, with no consideration for any additional fraction of a 35-acre parcel. The total amount available will be divided equally between each of the lots.

For example, a Cluster Development with seven lots on 150 acres has four full 35-acre parcels. Therefore four acre-feet of water is available to the lots in the development. Split evenly among the seven lots, the four acre-feet allows for 0.57 acre-feet annually per lot.

Parcels that are approved as a part of a cluster development are not eligible for consideration for uses greater than those described above. For example, a 35-acre lot that is part of a cluster development, will not be eligible for use beyond those allowed by the parcel's allotment of the one acre-foot per full 35-acre parcel.

#### Well Permit Evaluation for Areas Inside a Designated Basin

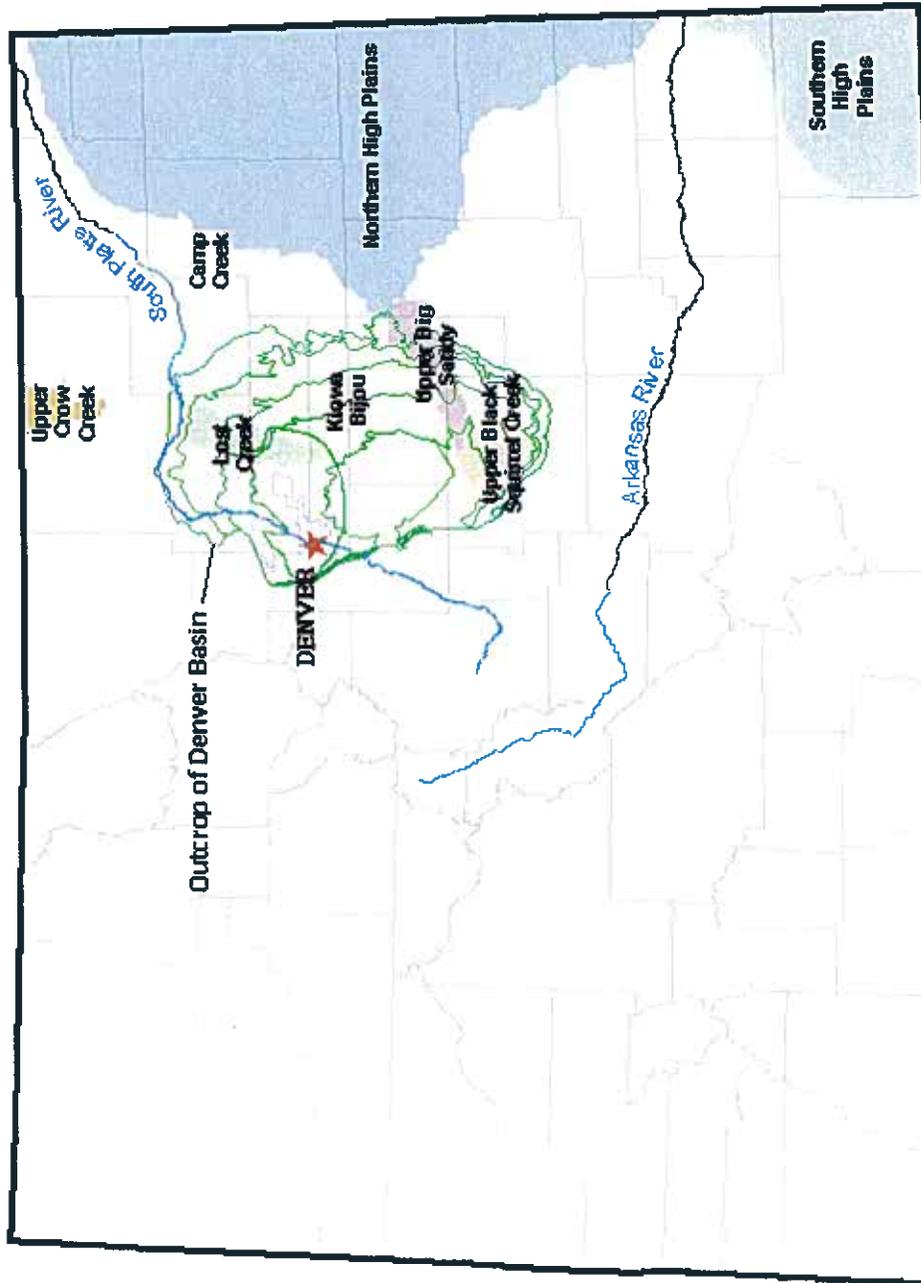
The SEO will evaluate applications for a residential well permit for no more than one single-family dwelling, including the normal operations associated with such dwelling including the irrigation of not more than one acre of land; subject to all applicable Ground Water Management District Rules if the parcel is located within such a district.



**Attachment C**

FORM NO. GWS-76 02/2005	<b>WATER SUPPLY INFORMATION SUMMARY</b> STATE OF COLORADO, OFFICE OF THE STATE ENGINEER 1313 Sherman St., Room 818, Denver, CO 80203 Phone – Info (303) 866-3587 Main (303) 866-3581 Fax (303) 866-3589 <a href="http://www.water.state.co.us">http://www.water.state.co.us</a>		
Section 30-28-133,(d), C.R.S. requires that the applicant submit to the County, "Adequate evidence that a water supply that is sufficient in terms of quantity, quality, and dependability will be available to ensure an adequate supply of water."			
1. NAME OF DEVELOPMENT AS PROPOSED:			
2. LAND USE ACTION:			
3. NAME OF EXISTING PARCEL AS RECORDED: SUBDIVISION: _____, FILING (UNIT) _____, BLOCK _____, LOT _____			
4. TOTAL ACREAGE: _____		5. NUMBER OF LOTS PROPOSED _____ PLAT MAP ENCLOSED? <input type="checkbox"/> YES or <input type="checkbox"/> NO	
6. PARCEL HISTORY – Please attach copies of deeds, plats, or other evidence or documentation.			
A. Was parcel recorded with county prior to June 1, 1972? <input type="checkbox"/> YES or <input type="checkbox"/> NO B. Has the parcel ever been part of a division of land action since June 1, 1972? <input type="checkbox"/> YES or <input type="checkbox"/> NO If yes, describe the previous action: _____			
7. LOCATION OF PARCEL – Include a map delineating the project area and tie to a section corner.			
_____ 1/4 of the _____ 1/4, Section _____, Township _____ <input type="checkbox"/> N or <input type="checkbox"/> S, Range _____ <input type="checkbox"/> E or <input type="checkbox"/> W Principal Meridian: <input type="checkbox"/> Sixth <input type="checkbox"/> New Mexico <input type="checkbox"/> Ute <input type="checkbox"/> Costilla <b>Optional GPS Location:</b> GPS Unit must use the following settings: Format must be UTM, Units must be meters, Datum must be NAD83, Unit must be set to true N, <input type="checkbox"/> Zone 12 or <input type="checkbox"/> Zone 13 Easting: _____ Northing: _____			
8. PLAT – Location of all wells on property must be plotted and permit numbers provided. Surveyor's Plat: <input type="checkbox"/> YES or <input type="checkbox"/> NO If not, scaled hand drawn sketch: <input type="checkbox"/> YES or <input type="checkbox"/> NO			
9. ESTIMATED WATER REQUIREMENTS		10. WATER SUPPLY SOURCE	
USE  HOUSEHOLD USE # _____ of units  COMMERCIAL USE # _____ of S. F.  IRRIGATION # _____ of acres  STOCK WATERING # _____ of head  OTHER: _____ TOTAL	WATER REQUIREMENTS Gallons per Day _____ Acre-Foot per Year _____  _____  _____  _____  _____	<input type="checkbox"/> EXISTING WELL <input type="checkbox"/> DEVELOPED SPRING  WELL PERMIT NUMBERS  _____  _____  <input type="checkbox"/> MUNICIPAL <input type="checkbox"/> ASSOCIATION <input type="checkbox"/> COMPANY <input type="checkbox"/> DISTRICT NAME _____ LETTER OF COMMITMENT FOR SERVICE <input type="checkbox"/> YES or <input type="checkbox"/> NO	<input type="checkbox"/> NEW WELLS - PROPOSED AQUIFERS – (CHECK ONE) <input type="checkbox"/> ALLUVIAL <input type="checkbox"/> UPPER ARAPAHOE <input type="checkbox"/> UPPER DAWSON <input type="checkbox"/> LOWER ARAPAHOE <input type="checkbox"/> LOWER DAWSON <input type="checkbox"/> LARAMIE FOX HILLS <input type="checkbox"/> DENVER <input type="checkbox"/> DAKOTA <input type="checkbox"/> OTHER: _____  WATER COURT DECREE CASE NUMBERS: _____ _____
11. WAS AN ENGINEER'S WATER SUPPLY REPORT DEVELOPED? <input type="checkbox"/> YES or <input type="checkbox"/> NO IF YES, PLEASE FORWARD WITH THIS FORM. (This may be required before our review is completed.)			
12. TYPE OF SEWAGE DISPOSAL SYSTEM			
<input type="checkbox"/> SEPTIC TANK/LEACH FIELD  <input type="checkbox"/> LAGOON  <input type="checkbox"/> ENGINEERED SYSTEM (Attach a copy of engineering design.)		<input type="checkbox"/> CENTRAL SYSTEM DISTRICT NAME: _____ <input type="checkbox"/> VAULT LOCATION SEWAGE HAULED TO: _____  <input type="checkbox"/> OTHER: _____	

**ATTACHMENT D**  
**COLORADO STATE MAP SHOWING**  
**THE DENVER BASIN AND THE DESIGNATED BASINS**



## **APPENDIX E**

### **Ultimate Projection Calculations**



**Prosper - Ultimate Projection Calculations**

HRS Water Consultants, Inc.

		<b>Units</b>	<b>Notes</b>
Max. Day Wastewater Flow	270	gal/day/SFE	(includes I&I)
Average Annual Water Demand - Commercial & Multifamily	0.2	ac-ft/yr/SFE	(not including Irrigation)
Average Annual Water Demand - Single Family - In House	0.2	ac-ft/yr/SFE	(not including Irrigation)
Average Annual Water Demand - Single Family - Irrigation	0.2	ac-ft/yr/SFE	
Max. Day Water Demand - Commercial & Multifamily	321.12	gal/day/SFE	1.8 peaking factor
Max. Day Water Demand - Single Family - In House	267.6	gal/day/SFE	1.5 peaking factor
Max. Day Water Demand - Single Family - Irrigation	934.93	gal/day/SFE	3,000 sf lawn - 0.5 inches in one day
Commercial/Retail equivalents	0.30	SFE/1,000 SF	
Offices/Medical/Civic	0.5	SFE/1,000 SF	
Rural Residential	1.00	SFE/DU	0.2 ac-ft/yr/SFE
Medium Density Residential	0.90	SFE/DU	0.18 ac-ft/yr/SFE
High Density Residential	0.75	SFE/DU	0.15 ac-ft/yr/SFE
Schools	3.00	SFE/50 stud	

**Prosper - Ultimate Wastewater Flow and Potable Water Demand Projections**

<u>Land Use</u>	<b>Building (sf)</b>	<b># of Units or # students</b>	<b>SFE</b>	<b>WW - Flow Max. Day</b>	<b>Annual Demand In-Side (ac-ft)</b>	<b>* Irrigation with reuse or raw water</b>		<b>Max. Day Dem. In-side (gal/day)</b>	<b>Max. Day Dem. Irrig. (gal/day)</b>
						<b>Annual Demand Irrig. (ac-ft)</b>			
Commercial/Retail	2,000,000		600	162,000	120	*	192,672	*	
Mixed Use (1)	1,500,000	400	1,050	283,500	210	*	337,176	*	
Mixed Use (2)	500,000	900	925	249,750	185	*	247,530	*	
Mixed Use Medical/Educational	500,000		250	67,500	50	*	80,280	*	
Employment Light Industrial/Flex/Office	3,500,000		1,750	472,500	350	*	561,960	*	
High School (1)	220,000	<b>1,700</b>	102	27,540	20	*	32,754	*	
Elementary School (5)	380,000	<b>4,250</b>	255	68,850	51	*	81,886	*	
Low Density Residential		1,500	1,500	405,000	300	300	401,400	1,402,393	
Medium Density Residential		5,100	4,590	1,239,300	918	918	1,228,284	4,291,324	
High Density Residential		1,100	825	222,750	165	*	220,770	*	
<b>Total Potable Demand</b>	<b>8,600,000</b>	<b>9,000</b>	<b>11,847</b>	<b>3,198,690</b>	<b>2,369</b>	<b>1,218</b>	<b>3,384,712</b>	<b>5,693,717</b>	

Total Projected Max. Day Wastewater Flow (MGD)	3.20
Total Projected Annual Wastewater Eff./Reuse (MG)	1,168
<b>Total Projected Potable Water Annual Demand (ac-ft)</b>	<b>3,587</b>
Total Projected Potable Max. Day Demand (MGD)	9.08
Total Projected Potable Max. Day Demand (GPM)	6,304

## **APPENDIX F**

### **Ultimate Irrigation Projection Calculations**



**Prosper - Ultimate Irrigation Projection Calculations**

HRS Water Consultants, Inc.

January, 2014

	Units	Notes
Annual Irrigation Rate	27 inches/yr	
Annual Irrigation Rate per Acre (calculated)	2.25 ac-ft/acre	
Irrigation Peak Day Demand - Fescue Turf	0.25 inches/day	
Irrigation Peak Hour Demand - Fescue Turf (calc gpm)	14.14 gpm/acre	8 hours per day
Irrigation Peak Day Demand - Native grasses	0.167 inches/day	
Irrigation Peak Hour Demand - Native Grass (calc gpm)	9.45 gpm/acre	8 hours per day
Percent (%) of Comm./Multifamily/Office Land Irrigated	30.00 %	
Percent (%) of Parks and Schools Land Irrigated	50.00 %	
Percent (%) of Open Space Land Irrigated	90.00 %	

**Prosper - Ultimate Irrigation Demand Projections**

Land Use	Total Land (Acres)	Irrigated Area (Acres)	Annual Irrigation (ac-ft/year)	Annual Irrigation (MG/year)	Max. Hour Irrigation Demand (gpm)	Max. Day Irrigation Demand (MGD)
Comm/Retail	173	52	117	38	734	0.35
Mixed Use -1	124	37	84	27	526	0.25
Mixed Use - 2	105	32	71	23	445	0.21
Mixed Use Medical/Educational	35	11	24	8	148	0.07
Employment Industrial/Flex/Office	216	65	146	48	916	0.44
School/Parks	<b>130</b>	<b>65</b>	146	48	919	<b>0.44</b>
Parks	<b>108</b>	<b>54</b>	122	40	764	<b>0.37</b>
High Densit Resid.	100	30	68	22	424	0.20
Waste Water Treatment Plant	9	3	6	2	38	0.02
Agriculture *	767	150	338	110	1,417	0.68
Open Space & ROW *	478	200	450	147	1,889	0.91
<b>Totals</b>	<b>2,245</b>	<b>698</b>	<b>1,570</b>	<b>511</b>	<b>8,221</b>	<b>3.95</b>

Total Projected Max. Day Irrigation Demand (MGD)	3.95
<b>Total Projected Irrigation Annual Demand (ac-ft)</b>	<b>1,570</b>
Total Projected Irrigation Annual Demand (MG)	511

## **APPENDIX G**

### **11CW22 Water Court Decree**



<p><b>Water Division 1, State of Colorado</b>  <b>District Court, Weld County</b>  901 9th Avenue, Greeley, Colorado 80631</p> <hr/> <p><b>CONCERNING THE APPLICATION FOR WATER RIGHTS OF PROSPER FARMS INVESTMENTS, LLC</b></p> <p><b>IN ARAPAHOE COUNTY, COLORADO</b></p>	<p>EFILED Document – District Court  2011CW22  CO Weld County District Court 19th JD  Filing Date: Dec 14 2011 4:43PM MST  Filing ID: 41404143</p> <p>▲ COURT USE ONLY ▲</p> <p>Case Number: 11CW22</p> <p>Water Division 1</p>
<p align="center"><b>FINDINGS OF FACT, CONCLUSIONS OF LAW,  RULING OF THE REFEREE AND DECREE OF THE WATER COURT</b></p>	

The above-captioned application was referred to the Water Referee for Water Division 1, State of Colorado, by the Water Judge of said Court in accordance with Article 92 of Title 37 of the Colorado Revised Statutes, known as the Water Right Determination and Administration Act of 1969. The undersigned Referee, having made such investigations as are necessary to determine whether or not the statements in the application are true, and having become fully advised with respect to the subject matter of the application, does hereby make the following Findings of Fact, Conclusions of Law, and Ruling in this matter:

**I. FINDINGS OF FACT**

1. **Application.** The Application for Determination of Underground Water Rights from the Not Nontributary and Nontributary Denver Basin Aquifers was filed on February 24, 2011, by Furniture Row COLO, LLC, a Colorado limited liability company, c/o Gregory A. Ruegsegger, General Counsel, 5641 North Broadway, Denver, Colorado 80216. In November 2011, Prosper Farms Investments, LLC, a Colorado limited liability company (“Prosper Farms”), substituted in as the Applicant in this matter after the conveyance to Prosper Farms of all the land and water rights that are the subject of the application. Applicant is represented in this matter by Stephen C. Larson and David F. Bower of the firm Johnson & Repucci LLP, 2521 Broadway, Suite A, Boulder, Colorado 80304. The Court hereby finds that the application is complete, covering all matters required by law. Applicant’s claims are set forth in paragraphs 5 and 6 below.
  
2. **Notice and Jurisdiction.** All notices required by law have been duly given and the Court has jurisdiction over the subject matter of the application and over all persons affected thereby, whether or not they have chosen to appear. The Water Clerk has caused the publication of said application as provided by statute, and the publication costs have been paid. The land and water rights that are the subject of the application are not included within the boundaries of a designated groundwater basin.

3. **Objectors.** A statement of opposition was filed by the City of Aurora, a municipal corporation of the counties of Adams, Arapahoe and Douglas, acting by and through its Utility Enterprise (“Aurora”). Applicant and Aurora entered into a stipulation in this matter on October 31, 2011. No other statements of opposition were filed and the time for filing such statements has expired.

4. **Reports of the State and Division Engineers.** Determinations of Facts for the Denver Basin aquifers were issued by the State Engineer’s Office on May 5, 2011 and a Summary of Consultation was issued by the Division Engineer for Water Division 1 on May 31, 2011. Applicant filed a response to the Summary of Consultation on July 14, 2011. As reflected in paragraphs 5 and 6 below, Applicant has revised its claims as necessary to appropriately incorporate the comments of the State and Division Engineer. The Referee has given due consideration to the Determinations of Facts, the Summary of Consultation, and Applicant’s response to the Summary of Consultation in making these findings.

5. **Determination of Underground Water Rights from the Not Nontributary and Nontributary Denver Basin Aquifers Underlying the Subject Property.** Applicant is the owner of approximately 841.37 acres of land located in Arapahoe County, as more specifically described in paragraph 5(a) below (the “Subject Property”). By this claim, Applicant seeks an adjudication of all of the underground water in the Denver, Upper Arapahoe, Lower Arapahoe and Laramie-Fox Hills Aquifers underlying the Subject Property.

(a) **Legal Description of the Subject Property.** The Subject Property is located in Sections 1 and 12, Township 4 South, Range 65 West of the 6th P.M., Arapahoe County, Colorado, as shown on the map attached hereto as **Exhibit A** and as legally described in **Exhibit B**. The Subject Property is not located within a designated ground water basin.

(b) **Wells and Well Permit Information.** Any well permits necessary for withdrawing the not nontributary and nontributary ground water adjudicated in this case will be obtained prior to drilling any wells into the Denver Basin aquifers.

(c) **Source of Water.**

(i) **Not Nontributary Water.** The ground water from the Denver Aquifer underlying the Subject Property is not nontributary ground water as defined by C.R.S. § 37-90-103(10.7). As further explained in the Determination of Facts for the Denver Aquifer, the northern portion of the Subject Property is located within one mile of a point of contact between a natural stream and the Denver Aquifer, and the southern portion of the Subject Property is located greater than one mile of a point of contact between a natural stream and the Denver Aquifer. Applicant shall not withdraw any not nontributary ground water from the Denver Aquifer until a plan for augmentation is approved allowing such withdrawal, subject to the applicable replacement requirements of C.R.S. § 37-90-137(9).

(ii) **Nontributary Water.** The ground water from the Upper Arapahoe, Lower Arapahoe and Laramie-Fox Hills Aquifers underlying the Subject Property is nontributary ground water as defined by C.R.S. § 37-90-103(10.5). Applicant shall relinquish to the stream

system two percent (2%) of all nontributary ground water withdrawn on an annual basis, or otherwise demonstrate to the State Engineer that not more than ninety-eight percent (98%) of such nontributary ground water withdrawn shall be consumed by Applicant, pursuant to Rule 8 of the Denver Basin Rules, 2 CCR 402-6 (the "Denver Basin Rules").

(d) Estimated Amounts Claimed. Applicant requests the right to withdraw all of the legally available Denver Basin ground water from the not nontributary and nontributary sources underlying the Subject Property at rates of flow necessary to withdraw the entire amount permitted. Applicant will withdraw the ground water in all of the Denver Basin aquifers through wells to be located anywhere on the Subject Property and/or from the well field described in paragraph 6 below. Said amounts may be withdrawn (i) over the 100-year life of the aquifers as set forth in C.R.S. § 37-90-137(4); (ii) over a longer time based upon actual withdrawal or local government regulations; or (iii) subject to the banking provisions of Rule 8.A of the Statewide Nontributary Ground Water Rules, 2 CCR 402-7 (the "Statewide Rules").

The Subject Property is divided into three parcels, as legally described in **Exhibit B**. The average annual amount of water to be withdrawn from each of the parcels and from each of the Denver Basin aquifers underlying the Subject Property, based upon the Determinations of Facts issued by the State Engineer's Office, is as follows:

<b>Parcel I</b>					
<i>Aquifer</i>	<i>Overlying Land (acres)</i>	<i>Saturated Sand Thickness (feet)</i>	<i>Specific Yield (percentage)</i>	<i>Type</i>	<i>Annual Withdrawal (af/yr)</i>
Denver	465.55	260	0.17	NNT – actual	205.8
Upper Arapahoe	465.55	145	0.17	NT	114.8
Lower Arapahoe	465.55	65	0.17	NT	51.4
Laramie-Fox Hills	465.55	160	0.15	NT	111.7
Total Not Nontributary (NNT):					205.8
Total Nontributary (NT):					277.9
Total:					483.7
<b>Parcel II</b>					
<i>Aquifer</i>	<i>Overlying Land (acres)</i>	<i>Saturated Sand Thickness (feet)</i>	<i>Specific Yield (percentage)</i>	<i>Type</i>	<i>Annual Withdrawal (af/yr)</i>
Denver	59.99	260	0.17	NNT – actual	26.5
Upper Arapahoe	59.99	150	0.17	NT	15.3
Lower Arapahoe	59.99	65	0.17	NT	6.6
Laramie-Fox Hills	59.99	160	0.15	NT	14.4
Total Not Nontributary (NNT):					26.5
Total Nontributary (NT):					36.3
Total:					62.8
<b>Parcel III</b>					
<i>Aquifer</i>	<i>Overlying Land (acres)</i>	<i>Saturated Sand Thickness (feet)</i>	<i>Specific Yield (percentage)</i>	<i>Type</i>	<i>Annual Withdrawal (af/yr)</i>
Denver	215.17	255	0.17	NNT – actual	93.3

Denver	100.66	255	0.17	NNT – 4%	43.6
Upper Arapahoe	315.83	150	0.17	NT	80.5
Lower Arapahoe	315.83	65	0.17	NT	34.9
Laramie-Fox Hills	315.83	170	0.15	NT	80.5
Total Not Nontributary (NNT):					136.9
Total Nontributary (NT):					195.9
Total:					332.8

The total estimated average annual amount of withdrawal from each of the Denver Basin aquifers underlying the 841.37 acres of the Subject Property is as follows:

<i>Aquifer</i>	<i>Type</i>	<i>Annual Withdrawal (af/yr)</i>
Denver	NNT – actual *	325.6
Denver	NNT – 4% **	43.6
Upper Arapahoe	NT	210.6
Lower Arapahoe	NT	92.9
Laramie-Fox Hills	NT	206.6
<b>TOTAL</b>		<b>879.3</b>

\* 740.71 acres of the Subject Property (i.e. Parcel I, Parcel II and 215.17 acres of Parcel III) is located within one mile of a point of contact between a natural stream and the Denver Aquifer. Accordingly, withdrawals from these lands are subject to replacement of actual stream depletions pursuant to C.R.S. § 37-90-137(9).

\*\* 100.66 acres of the Subject Property (i.e. 100.66 acres of Parcel III) is located greater than one mile from a point of contact between a natural stream and the Denver Aquifer. Accordingly, withdrawals from these lands are subject to replacement of 4% of the amount of water withdrawn to replace stream depletions pursuant to C.R.S. § 37-90-137(9).

(e) Uses or Proposed Uses. The ground water withdrawn from the Subject Property may be used, reused, and successively used to extinction, both on and off the Subject Property, for the following beneficial purposes: domestic, municipal, industrial, commercial, irrigation, livestock watering, recreational, fish and wildlife, fire protection, augmentation, replacement, and exchange. The ground water may be immediately used or stored for subsequent use, used for exchange purposes, for direct replacement of depletions, and for other augmentation purposes. Applicant claims the right to recapture, directly or by exchange, the return flows arising from use of this water and to reuse the same directly, by credit or after storage or reinjection, all in accordance with Colorado law. Such ground water may be leased, sold, or otherwise disposed of for all of these uses.

(f) Well Permits. Applicant shall be entitled to the issuance of well permits for withdrawing water from the Subject Property pursuant to C.R.S. § 37-90-137(10). Any well permits necessary for withdrawing the not nontributary and nontributary ground water must be obtained from the State Engineer's Office in accordance with C.R.S. § 37-90-137(4) and/or (10). Each well used to withdraw the not nontributary and nontributary ground water must be equipped with a properly installed and maintained totalizing flow meter. The Division Engineer may require Applicant to submit diversion records to the Division Engineer or his representative on an annual basis, or as otherwise requested by the Division Engineer.

(g) Well Field. Pursuant to Statewide Rules 11 and 14, Applicant claims a well field for production of the ground water that is the subject of this paragraph 5 along with lands

identified in the decrees entered in Case Nos. 89CW047, 97CW396, 99CW066, 01CW181, 02CW211, 02CW395, 04CW12, 04CW212, 04CW213 and 05CW35, Water Division 1, which are generally depicted on the map attached hereto as **Exhibit C**, as further explained below.

(h) **Spacing Rules**. Applicant waives any six hundred foot spacing rules as described in C.R.S. § 37-90-137(2), as between all wells located on the Subject Property and between all wells within the well field, to the extent that additional wells are drilled in the future.

(i) **Limit on Consumption**. Pursuant to Denver Basin Rule 8, Applicant shall limit the consumption of the water withdrawn from the nontributary Denver Basin aquifers underlying the Subject Property to no more than 98% of the water withdrawn on an annual basis and shall relinquish the remaining 2% to the stream system.

(j) **Not Nontributary Requirements**. Applicant shall not withdraw any not nontributary ground water from the Subject Property until a plan for augmentation is approved allowing such withdrawal, subject to the applicable replacement requirements of C.R.S. § 37-90-137(9).

(k) **Banking**. Applicant shall be allowed to withdraw more than the allowed annual average amount of ground water available set forth in paragraph 5(d) above pursuant to the banking provisions of Statewide Rule 8.A.

(l) **Abandonment of Existing Wells**. There are currently two wells permitted to be located on the Subject Property. Both existing wells are drilled into the Denver Aquifer formation and permitted under exempt Permit Nos. 1400 and 44443. Applicant shall abandon these existing permits before being issued any new permits for withdrawing the Denver Basin water adjudicated herein.

6. **Change of Previously Adjudicated Denver Basin Ground Water to be Withdrawn from the Well Field**. Applicant is the successor to and owner of certain contiguous lands and previously adjudicated Denver Basin ground water rights underlying such lands located in Arapahoe County. By this claim, and pursuant to the Statewide Rules, Applicant seeks to change certain of the previously adjudicated Denver Basin ground water rights conveyed to Applicant with such contiguous lands so that the previously decreed Denver Basin aquifer ground water rights may be withdrawn from a well field comprised of Applicant's contiguous lands (the "Well Field").<sup>1</sup> Applicant's Well Field will also include previously adjudicated Denver Basin ground water rights that are already decreed to be withdrawn from any contiguous or non-contiguous lands. Applicant also seeks to adjudicate, and include within the Well Field, Denver Aquifer water that was reserved for exempt wells (that were never developed) in prior decrees. A map showing the parcels included within the Well Field is attached hereto as **Exhibit C**.

---

<sup>1</sup> One parcel of land, identified below, is slightly non-contiguous but is applied for as part of the Well Field pursuant to Statewide Rule 11(b).

(a) Original Decrees to be Changed. The original decrees for the Denver Basin underground water rights sought to be changed for the purposes of withdrawing ground water from the Well Field are as follows:

- (i) Case No. 89CW047, entered February 8, 1991.
- (ii) Case No. 97CW396, entered November 25, 1998.
- (iii) Case No. 99CW066, entered February 29, 2000.
- (iv) Case No. 01CW181, entered October 21, 2003.
- (v) Case No. 02CW211, entered November 3, 2003 and amended *nunc pro tunc* on March 3, 2004.
- (vi) Case No. 02CW395, entered February 24, 2004.
- (vii) Case No. 04CW212, entered February 7, 2006.
- (viii) Case No. 05CW35, entered March 16, 2006.

(b) Proposed Change. Applicant requests that the Denver Basin underground water rights for the cases referenced in paragraph 6(a) above be changed to allow Applicant to withdraw the total annual amount of ground water adjudicated therein from a well or wells located anywhere on the Well Field depicted on Exhibit C.

(c) Additional Decrees to be Included within Well Field. The original decrees for the Denver Basin underground water rights that are not changed in order to include the decreed water within the Well Field, due to existing well field provisions of such decrees, are as follows:

- (i) Case No. 04CW12, entered February 7, 2006.
- (ii) Case No. 04CW213, entered February 7, 2006.
- (iii) Case No. 11CW22, entered herein.

(d) Legal Descriptions of the Well Field Properties. Applicant owns the Denver Basin aquifer ground water underlying the properties that are the subject of the cases cited in paragraphs 6(a) and 6(c) above, which are located in Sections 5, 6, 7, 8 and 18, Township 4 South, Range 64 West of the 6th P.M., and in Sections 1, 2, 11, 12, 13, 14 and 24, Township 4 South, Range 65 West of the 6th P.M. None of the properties are located within a designated ground water basin.

(e) Decreed Sources. The decreed sources of ground water for all of the cases cited in paragraphs 6(a) and 6(c) above are not nontributary ground water from the Denver Aquifer

and nontributary ground water from the Upper Arapahoe, Lower Arapahoe, and the Laramie-Fox Hills Aquifers.

(f) Amounts to be Changed. The annual withdrawals decreed in the individual cases cited in paragraph 6(a) above and which, pursuant to this claim, shall be changed so as to allow withdrawal of the water from the Well Field adjudicated herein, are set forth below.

<b>Case No. 89CW047 *</b>					
<i>Aquifer</i>	<i>Overlying Land (acres)</i>	<i>Saturated Sand Thickness (feet)</i>	<i>Specific Yield (percentage)</i>	<i>Type</i>	<i>Annual Withdrawal (af/yr)</i>
Denver	911.2	240	0.17	NNT -- 4%	371.8
Upper Arapahoe	934.2	150	0.17	NT	238.2
Lower Arapahoe	934.2	75	0.17	NT	119.1
Laramie-Fox Hills	934.2	175	0.15	NT	245.2
Total Not Nontributary (NNT):					371.8
Total Nontributary (NT):					602.5
Total:					974.3
* Case No. 89CW047 decreed the Denver Basin water underlying 956 acres of land. Applicant currently owns approximately 934.2 acres of land overlying the subject parcel. The amount of water adjudicated in 89CW047 that will be withdrawn from the subject Well Field has been adjusted accordingly.					
<b>Case No. 97CW396</b>					
<i>Aquifer</i>	<i>Overlying Land (acres)</i>	<i>Saturated Sand Thickness (feet)</i>	<i>Specific Yield (percentage)</i>	<i>Type</i>	<i>Annual Withdrawal (af/yr)</i>
Denver **	460	250	0.17	NNT – actual	189
Upper Arapahoe	460	150	0.17	NT	117
Lower Arapahoe	460	60	0.17	NT	47
Laramie-Fox Hills	460	155	0.15	NT	107
Total Not Nontributary (NNT):					189
Total Nontributary (NT):					271
Total:					460
** The decree entered in Case No. 97CW396 reserved 39 acre-feet/year from the Denver Aquifer for future exempt wells. To date, only 3 acre-feet/year underlying the 97CW396 property has been developed, under Well Permit No. 51341. In this case, Applicant seeks to adjudicate the undeveloped 36 acre-feet/year of this reserved water and withdraw it from the Well Field.					
<b>Case No. 99CW066</b>					
<i>Aquifer</i>	<i>Overlying Land (acres)</i>	<i>Saturated Sand Thickness (feet)</i>	<i>Specific Yield (percentage)</i>	<i>Type</i>	<i>Annual Withdrawal (af/yr)</i>
Denver +	576	255	0.17	NNT – 4%	247.7
Upper Arapahoe	576	139	0.17	NT	136.1
Lower Arapahoe	576	71	0.17	NT	69.5
Laramie-Fox Hills	576	157	0.15	NT	135.6
Total Not Nontributary (NNT):					247.7
Total Nontributary (NT):					341.2
Total:					588.9
+ The decree entered in Case No. 99CW066 reserved 48 acre-feet/year from the Denver Aquifer for future exempt wells. To date, none of this water has been developed. In this case, Applicant seeks to adjudicate the					

undeveloped 48 acre-feet/year of this reserved water and withdraw it from the Well Field.

**Case No. 01CW181<sup>++</sup>**

<i>Aquifer</i>	<i>Overlying Land (acres)</i>	<i>Saturated Sand Thickness (feet)</i>	<i>Specific Yield (percentage)</i>	<i>Type</i>	<i>Annual Withdrawal (af/yr)</i>
Denver	182	240	0.17	NNT – actual	73.3
Upper Arapahoe	182	145	0.17	NT	44.9
Lower Arapahoe	182	60	0.17	NT	18.6
Laramie-Fox Hills	182	150	0.15	NT	41.0
Total Not Nontributary (NNT):					73.3
Total Nontributary (NT):					104.5
Total:					177.8

<sup>++</sup> As shown on Exhibit C, the parcel associated with this case is slightly non-contiguous to the rest of the contiguous lands. This parcel is claimed as part of the Well Field in accordance with Statewide Rule 11(b).

**Case No. 02CW211<sup>^</sup>**

<i>Aquifer</i>	<i>Overlying Land (acres)</i>	<i>Saturated Sand Thickness (feet)</i>	<i>Specific Yield (percentage)</i>	<i>Type</i>	<i>Annual Withdrawal (af/yr)</i>
Denver <sup>^^</sup>	157.639	225	0.17	NNT – actual	60.3
Upper Arapahoe	157.639	135	0.17	NT	36.2
Lower Arapahoe	157.639	70	0.17	NT	18.8
Laramie-Fox Hills	157.639	160	0.15	NT	37.8
Total Not Nontributary (NNT):					60.3
Total Nontributary (NT):					92.8
Total:					153.1

<sup>^</sup> The decree in Case No. 02CW211 adjudicated the water underlying a total of approximately 774 acres associated with three distinct parcels of land located in Adams, Arapahoe and Weld Counties (identified therein as Parcels 1, 2 and 3, respectively). Of those decreed lands, 640 acres are located in Arapahoe County. Applicant owns 157.639 acres of the 640 acres located in Arapahoe County (the SW1/4 of Parcel 2), along with the Denver Basin water underlying the 157.639 acres. The Well Field adjudicated herein only includes the Denver Basin water decreed in Case No. 02CW211 which underlies the 157.639 acres that are owned by Applicant.

<sup>^^</sup> The decree entered in Case No. 02CW211 reserved 72 acre-feet/year from the Denver Aquifer for future domestic exempt wells to be located on all 640 acres of Parcel 2. In this case, Applicant seeks to adjudicate and withdraw the portion of the reserved water underlying its 157.639 acres, 17.7 acre-feet/year, from the Well Field.

**Case No. 02CW395**

<i>Aquifer</i>	<i>Overlying Land (acres)</i>	<i>Saturated Sand Thickness (feet)</i>	<i>Specific Yield (percentage)</i>	<i>Type</i>	<i>Annual Withdrawal (af/yr)</i>
Denver	127	250	0.17	NNT – 4%	53.9
Upper Arapahoe	127	145	0.17	NT	31.3
Lower Arapahoe	127	80	0.17	NT	17.2
Laramie-Fox Hills	127	175	0.15	NT	33.3
Total Not Nontributary (NNT):					53.9
Total Nontributary (NT):					81.8
Total:					135.7

**Case No. 04CW212<sup>\*</sup>**

<i>Aquifer</i>	<i>Overlying Land (acres)</i>	<i>Saturated Sand Thickness (feet)</i>	<i>Specific Yield (percentage)</i>	<i>Type</i>	<i>Annual Withdrawal (af/yr)</i>
----------------	-------------------------------	--	------------------------------------	-------------	----------------------------------

Denver	544	235	0.17	NNT – actual	217.3
Denver	365	235	0.17	NNT – 4%	145.8
Upper Arapahoe	933	150	0.17	NT	237.9
Lower Arapahoe	933	70	0.17	NT	111.0
Laramie-Fox Hills	933	170	0.15	NT	237.9
Total Not Nontributary (NNT):					363.1
Total Nontributary (NT):					586.8
Total:					949.9

\* Case No. 04CW212 decreed the Denver Basin water underlying 968 acres of land. Applicant currently owns 933 acres of these decreed lands. The amount of water adjudicated in Case No. 04CW212 that will be withdrawn from the subject Well Field has been adjusted accordingly.

**Case No. 05CW35**

<i>Aquifer</i>	<i>Overlying Land (acres)</i>	<i>Saturated Sand Thickness (feet)</i>	<i>Specific Yield (percentage)</i>	<i>Type</i>	<i>Annual Withdrawal (af/yr)</i>
Denver	85.633	210	0.17	NNT – 4%	30.6
Upper Arapahoe	85.633	145	0.17	NT	21.1
Lower Arapahoe	85.633	80	0.17	NT	11.6
Laramie-Fox Hills	85.633	175	0.15	NT	22.5
Total Not Nontributary (NNT):					30.6
Total Nontributary (NT):					55.2
Total:					85.8

(g) Additional Previously Adjudicated Denver Basin Ground Water to be Withdrawn from the Well Field. Applicant seeks to include within the Well Field lands owned by Applicant that overlie the Denver Basin ground water decreed in Case Nos. 04CW12 and 04CW213. The decrees in Case Nos. 04CW12 and 04CW213 already provide that the ground water decreed therein may be withdrawn from any contiguous lands or from any non-contiguous lands, if it is determined that a well cylinder for a well to be located in such well field overlaps any portion of such non-contiguous parcels, that are owned by Applicant. Therefore, no change is needed in reference to those decrees in order to include them within the Well Field decreed herein. The annual withdrawals quantified and decreed in these cases are set forth below.

**Case No. 04CW12**

<i>Aquifer</i>	<i>Overlying Land (acres)</i>	<i>Saturated Sand Thickness (feet)</i>	<i>Specific Yield (percentage)</i>	<i>Type</i>	<i>Annual Withdrawal (af/yr)</i>
Denver	24.18	255	0.17	NNT – actual	10.5
Denver	617.97	255	0.17	NNT – 4%	267.9
Upper Arapahoe	642.15	145	0.17	NT	158.3
Lower Arapahoe	642.15	70	0.17	NT	76.4
Laramie-Fox Hills	642.15	165	0.15	NT	158.9
Total Not Nontributary (NNT):					278.4
Total Nontributary (NT):					393.6
Total:					672.0

**Case No. 04CW213**

<i>Aquifer</i>	<i>Overlying Land</i>	<i>Saturated Sand Thickness</i>	<i>Specific Yield</i>	<i>Type</i>	<i>Annual Withdrawal</i>
----------------	-----------------------	---------------------------------	-----------------------	-------------	--------------------------

	<i>(acres)</i>	<i>(feet)</i>	<i>(percentage)</i>		<i>(af/yr)</i>
Denver	323.3	250	0.17	NNT – 4%	137.3
Upper Arapahoe	323.3	150	0.17	NT	82.4
Lower Arapahoe	323.3	80	0.17	NT	43.9
Laramie-Fox Hills	323.3	175	0.15	NT	84.8
Total Not Nontributary (NNT):					137.3
Total Nontributary (NT):					211.1
Total:					348.4

**Case No. 11CW22**

<i>Aquifer</i>	<i>Overlying Land (acres)</i>	<i>Saturated Sand Thickness (feet)</i>	<i>Specific Yield (percentage)</i>	<i>Type</i>	<i>Annual Withdrawal (af/yr)</i>
Denver	740.71	255-260 *	0.17	NNT -- actual **	325.6
Denver	100.66	255	0.17	NNT – 4% <sup>+</sup>	43.6
Upper Arapahoe	841.37	145-150 *	0.17	NT	210.6
Lower Arapahoe	841.37	65	0.17	NT	92.9
Laramie-Fox Hills	841.37	160-170 *	0.15	NT	206.6
Total Not Nontributary (NNT):					369.2
Total Nontributary (NT):					510.1
Total:					879.3

\* See paragraph 5(d) above for delineation of specific saturated thicknesses for the three parcels comprising the Subject Property.

\*\* 740.71 acres of the Subject Property is located within one mile of a point of contact between a natural stream and the Denver Aquifer. Withdrawals from these lands are subject to replacement of actual stream depletions pursuant to C.R.S. § 37-90-137(9). See paragraph 5(d) above.

<sup>+</sup> 100.66 acres of the Subject Property is located greater than one mile from a point of contact between a natural stream and the Denver Aquifer. Withdrawals from these lands are subject to replacement of 4% of the amount of water withdrawn pursuant to C.R.S. § 37-90-137(9). See paragraph 5(d) above.

(h) Total Amount of Water to be Withdrawn from the Well Field. The total estimated average annual amount of withdrawal from each of the Denver Basin aquifers underlying the Well Field, as set forth above in paragraphs 6(f) (water rights changed to the Well Field) and 6(g) (water rights included within the Well Field without such a change) above, is as follows:

<i>Prosper Farms Contiguous Lands – Summary of Denver Basin Water Underlying Approximately 5,262.3 Acres</i>		
<i>Aquifer</i>	<i>Type</i>	<i>Annual Withdrawal (af/yr)</i>
Denver	NNT – actual	876.0
Denver	NNT – 4%	1,298.6
Upper Arapahoe	NT	1,314.0
Lower Arapahoe	NT	626.0
Laramie-Fox Hills	NT	1,310.6
<b>TOTAL</b>		<b>5,425.2</b>

(i) Uses or Proposed Uses of Water Withdrawn from Well Field. All ground water withdrawn from the Well Field may be used, reused, and successively used to extinction, both on and off the parcels included within the Well Field, for the following beneficial purposes:

domestic, municipal, industrial, commercial, irrigation, livestock watering, recreational, fish and wildlife, fire protection, augmentation, replacement, and exchange. The ground water may be immediately used or stored for subsequent use, used for exchange purposes, for direct replacement of depletions, and for other augmentation purposes. Applicant claims the right to recapture, directly or by exchange, the return flows arising from use of this ground water and to reuse the same, directly, by credit or after storage or reinjection. The ground water may be leased, sold, or otherwise disposed of for all of these uses.

(j) Well Permits. Applicant shall be entitled to the issuance of well permits for additional wells for the Well Field pursuant to C.R.S. § 37-90-137(10). Any well permits necessary for withdrawing the not nontributary and nontributary ground water must be obtained from the State Engineer's Office in accordance with C.R.S. § 37-90-137(4) and/or (10). Each well used to withdraw the not nontributary and nontributary ground water must be equipped with a properly installed and maintained totalizing flow meter. The Division Engineer may require Applicant to submit diversion records to the Division Engineer or his representative on an annual basis, or as otherwise requested by the Division Engineer.

(k) Spacing Rules. Applicant waives any six hundred foot spacing rules as described in C.R.S. § 37-90-137(2), as between all wells within the Well Field, to the extent that additional wells are drilled in the future.

(l) Limit on Consumption. Pursuant to Denver Basin Rule 8, Applicant shall limit the consumption of the water withdrawn from the nontributary Denver Basin aquifers within the Well Field to no more than 98% of the water withdrawn on an annual basis and shall relinquish the remaining 2% to the stream system.

(m) Not Nontributary Requirements. Applicant shall not withdraw any not nontributary water from the Well Field until a plan for augmentation is approved allowing such withdrawal, subject to the applicable replacement requirements of C.R.S. § 37-90-137(9).

(n) Banking. Applicant shall be allowed to withdraw more than the allowed annual average amount of water available from the Well Field pursuant to the banking provisions of Statewide Rule 8.A.

## II. CONCLUSIONS OF LAW

7. The Findings of Fact as set forth in Section I above are fully incorporated herein and the following Conclusions of Law are made therefrom.

8. All notices of the application have been properly made as required by law, including as required under C.R.S. § 37-92-302(3), and the Court has jurisdiction over the subject matter of this action and over all entities or persons who had standing to appear, even if they did not.

9. The application is complete, covering all matters required by C.R.S. §§ 37-92-101 *et seq.*

10. Applicant has satisfied all legal requirements for a determination of underground water rights from the not nontributary and nontributary Denver Basin aquifers underlying the Subject Property pursuant to C.R.S. §§ 37-92-301 through 305 and 37-90-137(4).

11. Applicant has satisfied all legal requirements in order to withdraw the underground water rights from the not nontributary and nontributary Denver Basin aquifers from the subject Well Field pursuant to C.R.S. §§ 37-92-301 through 305 and 37-90-137(4).

**III. RULING OF THE REFEREE AND DECREE OF THE WATER COURT**

12. The Findings of Fact and Conclusions of Law as set forth in Sections I and II above are fully incorporated herein and made a part hereof.

13. The Court hereby grants and decrees Applicant’s claim set forth in paragraph 5 above for a determination of underground water rights from the not nontributary and nontributary Denver Basin aquifers underlying the Subject Property depicted on **Exhibit A** and legally described in **Exhibit B**. The total average annual amount of water to be withdrawn from each of the Denver Basin aquifers underlying the Subject Property, subject to the terms and conditions set forth in paragraph 5 above, is as follows:

<i>Prosper Farms Subject Property – Summary of Denver Basin Water Underlying 841.37 Acres depicted on <b><u>Exhibit A</u></b> and legally described in <b><u>Exhibit B</u></b></i>		
<i>Aquifer</i>	<i>Type</i>	<i>Annual Withdrawal (af/yr)</i>
Denver	NNT – actual	325.6
Denver	NNT – 4%	43.6
Upper Arapahoe	NT	210.6
Lower Arapahoe	NT	92.9
Laramie-Fox Hills	NT	206.6
<b>TOTAL</b>		<b>879.3</b>

14. The Court hereby grants and decrees Applicant’s claim set forth in paragraph 6 above for a well field to withdraw water from the not nontributary and nontributary Denver Basin aquifers underlying its Well Field in Arapahoe County as depicted on **Exhibit C**, which *includes* the Subject Property summarized above. The total average annual amount of ground water to be withdrawn from each of the Denver Basin aquifers underlying the Well Field, subject to the terms and conditions set forth in paragraph 6 above, is as follows:

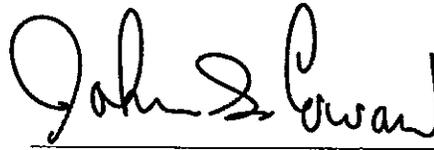
<i>Prosper Farms Contiguous Lands – Summary of Denver Basin Water Underlying Approximately 5,262.3 Acres Depicted on <b><u>Exhibit C</u></b></i>		
<i>Aquifer</i>	<i>Type</i>	<i>Annual Withdrawal (af/yr)</i>
Denver	NNT – actual	876.0
Denver	NNT – 4%	1,298.6

Upper Arapahoe	NT	1,314.0
Lower Arapahoe	NT	626.0
Laramie-Fox Hills	NT	1,310.6
<b>TOTAL</b>		<b>5,425.2</b>

All ground water withdrawn from the Well Field may be used, reused, and successively used to extinction, both on and off the parcels included within the Well Field, for the following beneficial purposes: domestic, municipal, industrial, commercial, irrigation, livestock watering, recreational, fish and wildlife, fire protection, augmentation, replacement, and exchange. The ground water may be immediately used or stored for subsequent use, used for exchange purposes, for direct replacement of depletions, and for other augmentation purposes. Applicant claims the right to recapture, directly or by exchange, the return flows arising from use of this water and to reuse the same, directly, by credit or after storage or reinjection. The water may be leased, sold, or otherwise disposed of for all of these uses.

15. A copy of these Findings of Fact, Conclusions of Law, Ruling of the Referee and Decree of the Water Court shall be filed with the Division Engineer for Water Division 1 and the State Engineer.

Dated: November 22, 2011



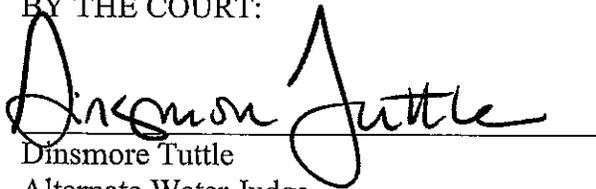
John S. Cowan  
Water Referee  
Water Division 1

This document was e-filed pursuant to C.R.C.P. 121 §1-16. A printable version of the electronically signed document is available in the court's electronic file.

No protest was filed in this matter. The foregoing ruling is confirmed and approved, and is made the Judgment and Decree of this Court.

Dated: 14 December 2011

BY THE COURT:



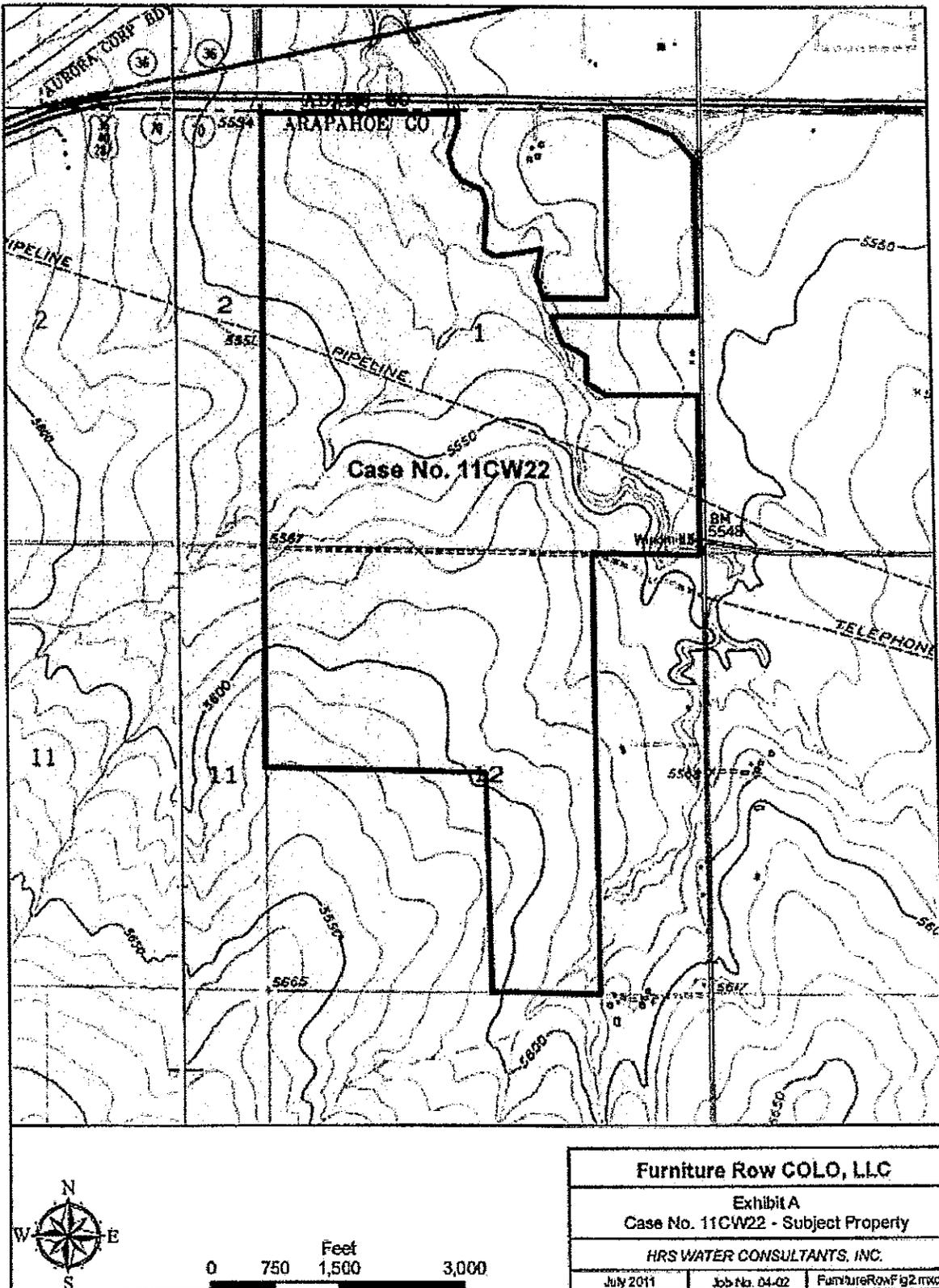
Dinsmore Tuttle  
Alternate Water Judge  
Water Division 1



**TABLE OF DECREE EXHIBITS**

<b><u>Exhibit A</u></b>	General Location Map
<b><u>Exhibit B</u></b>	Property Legal Description
<b><u>Exhibit C</u></b>	Map of Well Field Parcels





Prosper Farms Investments, LLC  
 11CW22

EXHIBIT A

**LEGAL DESCRIPTION**

**PARCEL I:**

SECTION 1, TOWNSHIP 4 SOUTH, RANGE 65 WEST OF THE 6<sup>TH</sup> P.M., EXCEPT THE EASTERLY 25 FEET THEREOF, AND EXCEPT THOSE PORTIONS DESCRIBED IN DEEDS RECORDED AUGUST 19, 1958 IN BOOK 1078 AT PAGE 398; OCTOBER 11, 1965 IN BOOK 1626 AT PAGE 53; AND JUNE 23, 1982 IN BOOK 3647 AT PAGE 387, COUNTY OF ARAPAHOE, STATE OF COLORADO.

**PARCEL II:**

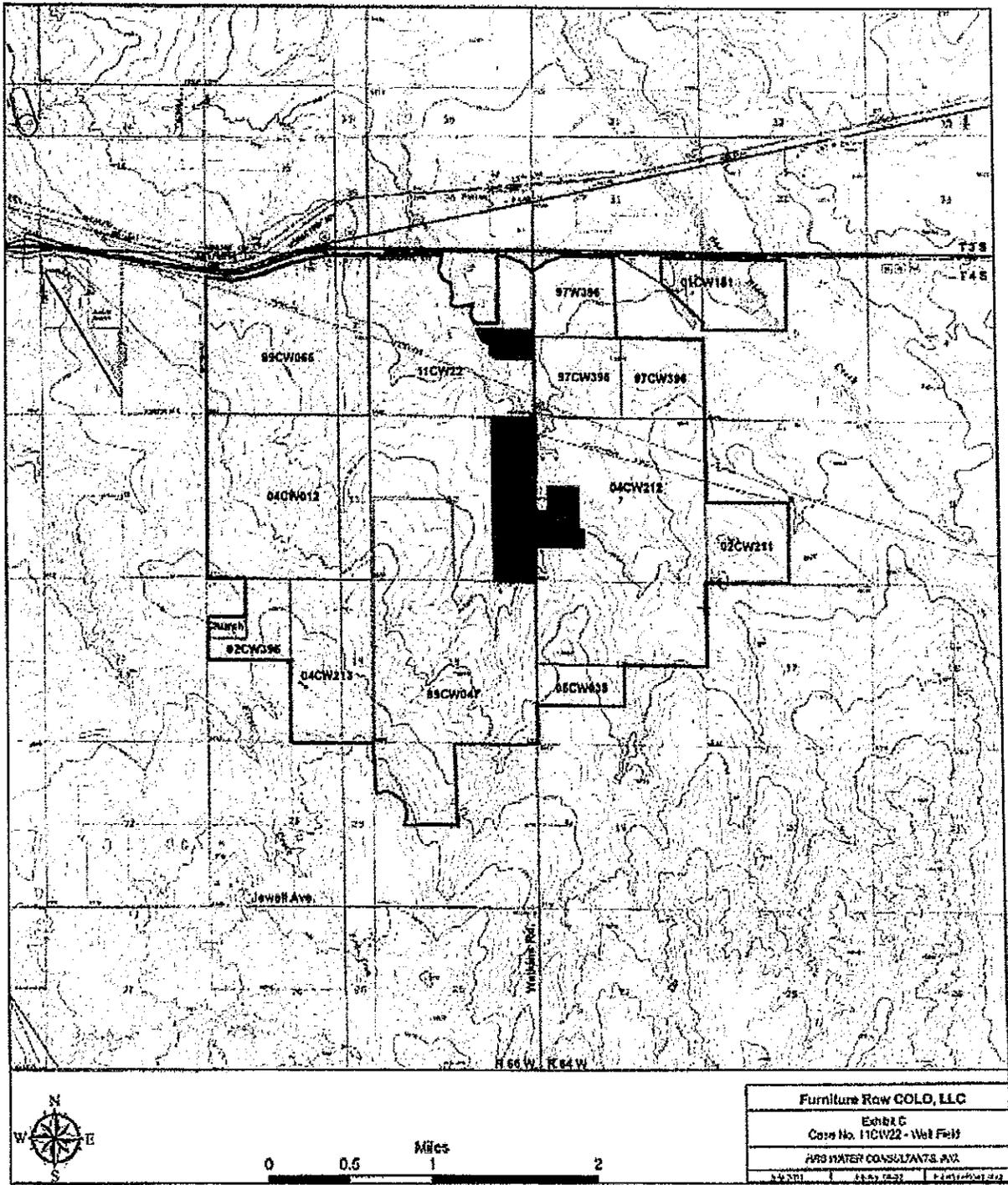
A PARCEL OF LAND SITUATED IN THE NE 1/4 OF SECTION 1, T.4S., R.65W., OF THE 6<sup>TH</sup> P.M., COUNTY OF ARAPAHOE, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEAST CORNER OF SECTION 1, T.4S., R.65W., OF THE 6<sup>TH</sup> P.M.; THENCE S00°32'30"W ALONG THE EAST LINE OF SAID NE 1/4 OF SECTION 1, T.4S., R.65W., OF THE 6<sup>TH</sup> P.M., A DISTANCE OF 1619.90 FEET; THENCE N89°27'30"W A DISTANCE OF 25.00 FEET TO A POINT ON THE WEST R.O.W. LINE OF WATKINS ROAD AND THE POINT OF BEGINNING; THENCE S00°32'30"W ALONG SAID WEST R.O.W. LINE A DISTANCE OF 809.07 FEET; THENCE N89°27'36"W A DISTANCE OF 1771.67 FEET; THENCE N19°11'35"W A DISTANCE OF 227.88 FEET; THENCE S89°27'36"E A DISTANCE OF 743.91 FEET; THENCE N00°25'36"W A DISTANCE OF 2179.29 FEET TO A POINT ON THE SOUTHERLY R.O.W. LINE INTERSTATE HIGHWAY 70; THENCE THE FOLLOWING FIVE (5) COURSES ALONG SAID SOUTHERLY R.O.W. LINE OF INTERSTATE HIGHWAY 70; THENCE S89°21'23"E A DISTANCE OF 191.23 FEET; THENCE S88°42'02"E A DISTANCE OF 683.06 FEET; THENCE S42°32'30"E A DISTANCE OF 366.00 FEET; THENCE S00°32'30"W A DISTANCE OF 300.00 FEET; THENCE S13°29'30"E A DISTANCE OF 103.10 FEET TO A POINT ON SAID WESTERLY R.O.W. LINE OF WATKINS ROAD; THENCE S00°32'30"W ALONG SAID WESTERLY R.O.W. LINE A DISTANCE OF 686.10 FEET TO THE POINT OF BEGINNING.

PARCEL CONTAINS (2,613,574 SQUARE FEET) 59.9999 ACRES.

**PARCEL III:**

THE WEST 1/2 OF THE EAST 1/2 AND THE NORTHWEST 1/4 OF SECTION 12, TOWNSHIP 4 SOUTH, RANGE 65 WEST OF THE 6<sup>TH</sup> P.M., EXCEPT ANY PORTION LYING WITHIN ANY EXISTING ROAD, COUNTY OF ARAPAHOE, STATE OF COLORADO.



Prosper Farms Investments, LLC  
 11CW22

EXHIBIT C



## **APPENDIX H**

### **Arapahoe County Water & Wastewater Authority Conditional Will-Serve Letter**



**ACWWA**



## Arapahoe County Water and Wastewater Authority

13031 East Caley Avenue, Centennial, CO 80111, (303) 790-4830, FAX (303) 790-9364

[www.arapahoewater.org](http://www.arapahoewater.org)

October 5, 2012

Arapahoe County Planning  
5334 South Prince Street  
Littleton, CO 80120

Re: Conditional Will Serve Letter—Prosper Development, 1041 Permit / Preliminary  
Development Plan Application

Dear Sir or Madam:

Arapahoe County Water and Wastewater Authority (“ACWWA”) provides this conditional “will serve” letter for the Arapahoe County development known as “Prosper,” which is the subject of the above-referenced land use application (the “Application”). Prosper is a proposed 5,100-acre mixed use master planned development east of Aurora, with a phased thirty-year build-out. The property is owned by Prosper Farms Investments, LLC, a local Colorado company.

As a part of the Application materials, the applicant submitted an “Average Annual Water Demands, Water Supplies, and Water Balance” for the Prosper development, dated August 13, 2012, prepared by HRS Water Consultants Inc. (the “Demand and Supply Table”). The Demand and Supply Table projects annual water demands for Prosper and the mix of water supplies proposed to satisfy those demands. Total annual demands at full build-out are projected to be 5,220 acre-feet. Of this amount, 1,305 acre-feet (25%) annually is projected to be supplied by the Developer’s decreed on-site nontributary water from the Lower Arapahoe and Laramie-Fox Hills aquifers; 1,662 acre-feet (32%) annually is projected to come from renewable supplies; and the 2,253 acre-foot balance (43%) is projected to be derived from reuse of the above sources. The owner and ACWWA have been in discussions in regard to the conditions by which ACWWA may provide water service to the development or to a water district that would serve the development, in order to satisfy the projected 1,662 acre-feet renewable water supply, utilizing fully reusable sources.

This letter contemplates primarily that ACWWA would expand one of its current projects, The ACWWA Flow Project to meet the increased water supply demands requested by the Prosper Development, however ACWWA may consider other projects to meet this demand as well.

Pursuant to an intergovernmental agreement (“IGA”) between ACWWA, East Cherry Creek Valley Water & Sanitation District (“ECCV”) and United Water & Sanitation District, the ACWWA Flow Project has secured the water rights and the infrastructure necessary to bring renewable water supplies to Arapahoe County. The renewable supplies are derived from the South Platte River basin and are brought to Arapahoe County via the ECCV Northern Pipeline (the “Pipeline”). The renewable water is pumped from high capacity alluvial wells on the north end of the system, in Beebe Draw at Barr Lake, treated, and delivered into the Pipeline for delivery to the south end of the system, which is in and near the ECCV service area. The alluvial

## Arapahoe County Planning

October 5, 2012

Page 2

wells providing the renewable supply are augmented via senior South Platte River water rights. A number of river exchanges and storage facilities are also involved in the operations that deliver renewable supplies from the South Platte River basin via the Pipeline. The north-south axis of the Pipeline is located approximately 3.5 miles due west of Prosper's eastern boundary and is therefore in an ideal location to deliver renewable water to the Prosper development.

The capacity of the Pipeline is approximately 47 million gallons per day (mgd). Less than half of that capacity is presently committed to current stakeholder participants (ACWWA, ECCV, South Metro Water Supply Authority). ACWWA's current entitlement to capacity in the Pipeline is 5.25 mgd and that capacity is committed to ACWWA's current service area. However, as one of the original stakeholder participants in the Pipeline project, ACWWA is positioned to request and potentially acquire, from the uncommitted Pipeline capacity, the additional capacity required to serve Prosper's renewable water demand at full build-out, which is approximately 1.48 mgd, in accordance with the projections set forth in the Demand and Supply Table. Currently all the water being delivered to the pipeline as part of the ACWWA Flow project, is fully reusable water, this would be the same concept to be developed at Prosper's expense to meet demands, which would also enable the reusable component of the water supply plan for the Prosper development to be satisfied.

The general legal framework for delivering renewable water supplies south from the Barr Lake well field to ECCV and ACWWA water users has already been approved by the Water Court, and a number of South Platte River senior water rights have also, received temporary approval by the Water Court as augmentation sources for the Pipeline operation. These Water Court approvals contemplate that additional amounts of renewable water may be added to the Pipeline project as augmented by additional South Platte basin senior water rights. ACWWA currently has several water court cases pending in order to add additional amounts approved for delivery in the Pipeline, for the purpose of its ACWWA Flow Project.

ACWWA is currently developing its ACWWA Flow Project to serve its current service area, at an initial review; the components of the project currently have the ability to be expanded, at Prosper's expense to accommodate the additional demand requested by Prosper. This expansion of the project including additional water supply would require further evaluation and agreements with ACWWA's contractual parties to complete this expansion, but in initial discussions with them, it appears that it is feasible. Discussions could occur with other parties as well to analyze potential methods to meet this water demand.

Accordingly, as one of the original stakeholder participants in the Pipeline project, ACWWA is in a unique position to provide potable, renewable water supplies to the Prosper development. As a result, ACWWA is one of a limited select number of water service options identified to serve the renewable water supply needs of the Prosper development. The basis upon which ACWWA would provide such water service to Prosper would be set forth in a water supply agreement that would need to be negotiated and signed prior to the final plat application for the Prosper development.

**Arapahoe County Planning**

October 5, 2012

Page 3

ACWWA is pleased to provide the Prosper Development with a conditional will serve letter understanding that numerous conditions and approvals need to be met before it commits to serving the development. Examples of these conditions are:

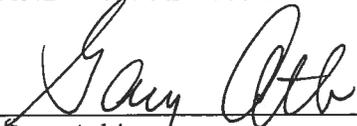
- Successful negotiation between parties and execution of a water supply agreement which will require approval by the ACWWA Board of Directors including pursuant to CRS Section 31-35-402(1)(b), ACWWA shall not provide water service or sewerage service or combination of them in any part of Prosper that is within a municipality or special district with the power to provide water service or sewerage service unless Prosper obtains the approval of such municipality or special district for ACWWA to provide service as to the territory in which the service is to be rendered.
- Service shall be subject to the requirements of ACWWA's Rules and Regulations as they are amended from time to time and uniformly enforced for similarly situated customers. Among other things, payment of tap fees for water and sewer service is required prior to connection of a tap.
- Prosper shall timely pay all required fees and charges.
- At such time as ACWWA and Prosper agree that water service will be provided by ACWWA, capacity to serve Prosper is or will be available in the ECCV pipeline and system or other acceptable systems.

If all approvals are obtained and all conditions are met, then ACWWA will provide potable water service to Prosper for 1,662 acre-feet of renewable supplies annually at Prosper's expense. ACWWA is willing to discuss phasing in the renewable supplies as required in conjunction with the overall phasing of the project development.

We hope the information presented is sufficient to allow approval of the Application. If you have questions or require further information, please do not hesitate to contact me.

Sincerely,

ARAPAHOE COUNTY WATER  
AND WASTEWATER AUTHORITY



Gary Atkin  
General Manager

## Regional Water Quality Management Plan

- Storm Water & Water Quality
- Domestic Water



## REGIONAL WATER QUALITY MANAGEMENT PLAN

**PROSPER**  
A new community with an optimistic spirit  
where one can flourish, thrive and succeed

## **5. Regional Water Quality Management Plan**

### **a. Storm Water and Water Quality**

A comprehensive regional storm water and water quality management plan has been prepared for Prosper. The Phase I storm drainage report incorporates standards and guidelines outlined by Arapahoe County and the Urban Drainage and Flood Control.

The storm drainage and water quality plan will be implemented in phases as Prosper is implemented over time. As outlined in the phase I drainage report, the intent is to maintain the integrity of the natural drainages and patterns that currently exist on the property. Storm conveyance facilities, drainage crossings, detention and water quality ponds have been located and configured to integrate with the existing drainage patterns and topography thereby minimizing the need for large channelization projects.

If a Floodplain Modification Study is required it will follow and meet the County's Stormwater Management Manual and will be dictated by the tributary boundary limits as determined by the County.

Development within Prosper will require Conditional Letter of Map Revisions (CLOMRs) for impacted Federal Emergency Management Agency (FEMA) designated floodplains. CLOMRs which modify the Special Flood Hazard Area (SFHA) must be approved by the County, Urban Drainage Flood Control District (UDFCD), the Colorado Water Conservation Board (CWCB), and FEMA prior to Board of County Commissioner (BOCC) approval of a Final Plat which modifies the SFHA.

### **b. Domestic Water**

Prosper is committed to providing a comprehensive sustainable water supply system. This water system is to be implemented in phases as the community develops. The central water system will utilize a combination of existing groundwater rights, renewable surface water sources and recycled water.

A comprehensive water analysis and report has been prepared for Prosper and is included as Section 4 of this application. The report includes a supply and demand analysis. Existing and proposed ground water wells are also evaluated along with the net effect.

THIS PAGE INTENTIONALLY LEFT BLANK

## Financial Feasibility Plan

- Cost, Review & Phases
- Metro Districts Structure
- District Coordination & Public Improvement Financing



6

FINANCIAL FEASIBILITY PLAN

**PROSPER**

A new community with an optimistic spirit  
where one can flourish, thrive and succeed

## 6. Financial Feasibility Report

A comprehensive financial plan has been prepared for Prosper to ensure that required community infrastructure can be financed, constructed and maintained. This financial plan includes establishing eight metropolitan districts that will be utilized to finance and provide specific functions as outlined below.

The Prosper Metropolitan Districts Nos. 1-8 (the "Districts") are being organized to assure there will be governmental provision of essential services to the proposed development. Through one or more Intergovernmental Agreements the Districts will coordinate the planning; design; acquisition; financing; construction; operations and maintenance of road and transportation improvements; water; sanitary sewer; storm drainage improvements; park and recreation improvements; and mosquito control services. Streets that designed and constructed in compliance with the Arapahoe County Engineering standard and requirements may be maintained by Arapahoe County. The Districts will finance these improvements through the issuance of Bonds and the imposition of taxes, fees and charges and other legally available revenues.

### a. Costs, Review & Phases

#### Estimated Construction Costs and Period of Construction

It is estimated that approximately \$600,000,000 will be required over a 30 year period to construct and maintain Prosper. Infrastructure improvements including water, sewer, transportation, drainage and recreational facilities will be implemented in multiple phases over a 30 year period.

Financial Description of Revenues, Estimated Debt and Financial Entities.

Enclosed in this section is a summary that outlines the Prosper Metropolitan District structure. The Metropolitan District Title 32 application will be submitted under separate cover.

The purpose of this introduction is to provide an overview of the organizational and relational structure of the metropolitan districts proposed to serve the mastered planned development known as Prosper ("Prosper" or the "Development") in Arapahoe County, Colorado.

### b. Metro Districts Structure

The metropolitan districts will cooperate to provide in a coordinated manner public improvements and services that are necessary to develop and maintain Prosper. Following is a description of each of the eight (8) proposed districts and their respective functions:

#### 1. Prosper Regional Water and Sanitation Metropolitan District.

Because the Development is not presently within the boundaries of any entity that provides water or sanitation services, the Prosper Regional Water and Sanitation Metropolitan District (the "Regional Water and Sanitation District") is being organized to: (a) coordinate the planning, design, construction, acquisition, and operation and maintenance (and/or contracting for same) of the wholesale water and sanitary sanitation and storm sewer improvements to the Development; (b) operate and maintain (or contract for same) all wholesale water and sanitary sewer and storm sewer improvements; and (c) own, operate and maintain all retail water, sanitary sewer and storm sewer improvements. The

Regional Water and Sanitation District will also have the power to provide service by contract to properties outside the Prosper Master Plan. The Regional Water and Sanitation District will fund the wholesale components of the system out of tap fees and stand by fees, as appropriate, and the proceeds of revenue bond issuances. The Regional Water and Sanitation District will fund the operation and maintenance of wholesale and retail components of the system out of monthly service charges paid by all service users. The corporate boundaries (as opposed to the service area) of the Regional Water and Sanitation District will be limited in area and will most likely not expand through the life of the Development.

Although non-tributary well water will be used to serve the initial phases of the Development, the Regional Water and Sanitation District will prepare a water acquisition and infrastructure development plan ("Water Development Plan") to assure that over time the Development will be served by a sustainable, renewable water supply consistent with Arapahoe County requirements regarding the use of aquifer water, including without limitation recycle and reuse requirements. Such Water Development Plan shall include a schedule of tap fees and service charges for customer calculated from the commencement of water infrastructure development and service delivery to pay for acquisition of renewable water resources and future capital development costs necessary to transition the Development from its dependency on non-tributary water over time to a renewable, sustainable water supply, in addition to paying ongoing service delivery costs.

## **2. Prosper Water and Sanitation Financing Metropolitan District.**

Prosper Water and Sanitation Financing Metropolitan District (the "Water and Sanitation Financing District"), which will comprise all of the property within the Development, will provide funds to support the financing of water and sanitation improvements and facilities constructed by the Regional Water and Sanitation District. It is anticipated that the Water and Sanitation Financing District will levy an ad valorem property tax of up to 20 mills and either (i) pledge the revenues derived from such mill levy to pay bonds issued by the Regional Water and Sanitation District for financing capital costs of water and sanitation improvements and facilities; or (ii) use such revenues to secure bonds issued by the Water and Sanitation Financing District the proceeds of which will be remitted to the Regional Water and Sanitation District for such capital costs.

## **3. Prosper Coordinating Metropolitan District.**

The Prosper Coordinating Metropolitan District (the "Coordinating District") will coordinate financing, construct and with respect to public improvements not conveyed to another public entity, own, maintain and operate all public improvements and facilities throughout the Development (except for the water and sanitation improvements and facilities provided by the Regional Water and Sanitation District) and otherwise provide for coordination among the Districts to provide public services to the Development in the most efficient manner possible. The improvements to be provided by the Coordinating District will include streets, storm drainage, park and recreation, transportation, television relay and translation, and mosquito control. The Coordinating District will also have a limited power to provide fire protection services which it will exercise pursuant to one or more intergovernmental agreements with the Bennett Fire Protection District. Capital, administrative, operations, maintenance and administrative costs will be funded by property tax revenues received from the Park and Recreation Financing District and Financing District Nos. 1-4, and, as necessary, fees, rates, tolls and charges. The corporate boundaries of the Coordinating District, like the Regional Water and Sanitation District, will be limited in area and will most likely not expand through the life of the Development.

## **4. Prosper Park and Recreation Financing Metropolitan District.**

Because the Development is not presently within the boundaries of any entity that provides park and recreation improvements, facilities and services, the Prosper Park and Recreation Financing

Metropolitan District (the "Park and Recreation Financing District") is being organized to provide funds to support the financing of park and recreation improvements and facilities constructed by the Coordinating District. The Park and Recreation Financing District will comprise all of the property within the Development. It is anticipated that the Park and Recreation Financing District will levy an ad valorem property tax of up to 8 mills and either (i) pledge the revenues derived from such mill levy to pay bonds issued by the Coordinating District for financing capital costs of park and recreation improvements and facilities or (ii) use such revenues to secure bonds issued by the Coordinating District the proceeds of which will be remitted to the Coordinating District for such capital costs.

**5. Prosper Metropolitan District Nos. 1-4.**

Prosper Metropolitan Districts Nos. 1-4 (collectively, the "Financing Districts") will finance the improvements and facilities constructed by the Coordinating District, other than those financed by the Water and Sanitation Financing District and Park and Recreation Financing District. The initial boundaries of each of the Financing District Nos. 1-4 will be drawn to accommodate different land uses (e.g., single-family residential, multi-family residential, commercial, office/industrial, etc.) and phased development over time. It is anticipated that the Financing Districts will levy an ad valorem property tax of up to 50 mills and either (i) pledge the revenues derived from such mill levy to pay bonds issued by the Coordinating District for financing capital costs of improvements and facilities; or (ii) use such revenues to secure bonds issued by the Coordinating District the proceeds of which will be remitted to the Coordinating District for such capital costs.

**c. District Coordination and Public Improvement Financing**

The Districts will be quasi-municipal corporations and political subdivisions of the State of Colorado, organized under the Special District Act, Article 1, Title 32, C.R.S., pursuant to Service Plans approved by the Arapahoe County Board of County Commissioners. Accordingly, they will have statutory, constitutional, Service Plan and voted authority to enter into intergovernmental agreements ("IGAs"), which will govern the relationships between and among the District's with respect to the financing, construction, operations and maintenance of public improvements and facilities for the Development. This will assure that (a) necessary public improvements and services can be financed in the most favorable and efficient manner; (b) all services and improvements needed for the Development will be available when needed through managed development; and (c) a reasonable mill levy's and reasonable tax burdens on residential and non-residential property within the Development will be maintained through managed financing and coordinated completion of infrastructure improvements.

Following are cost estimates of public improvements to be financed and constructed by the Districts:

Water and Sanitation Improvements	\$200,000,000
Park and Recreation Improvements	\$16,500,000
Other Improvements	<u>\$374,100,000</u>
Total Estimated Costs	\$590,600,000

The Districts will be authorized to issue debt in excess of \$590,600,000 to account for unanticipated cost increases and other contingencies. Based on revenue projections prepared by George K. Baum, it is anticipated that such costs can reasonably be financed from the following revenue sources:

1. Debt Service Mill Levy:
  - 69.0 mills for residential property (total debt levy imposed by the Park and Recreation Financing Metropolitan District, a Financing District and the Water and Sanitation Financing Metropolitan District)
  - 51.5 mills for non-residential property

2. Specific Ownership Taxes resulting from the Debt Service Mill Levies
3. Tap Fees:
  - \$15,000 per residential tap
  - \$25,000 per non-residential tap
4. Facilities Fees:
  - \$1,000 per high-density and mixed-use residential unit
  - \$2,000 per medium density and low-density residential unit

Although property within each of the Financing Districts will be overlapped by the Water and Sanitation Financing Metropolitan District and Park and Recreation Financing District, the aggregate debt service mill levy rates shown above are comparable to the combined debt service mill levies of other metropolitan districts in the market area that are overlapped by other entities that provide water and sanitation and park and recreation services.

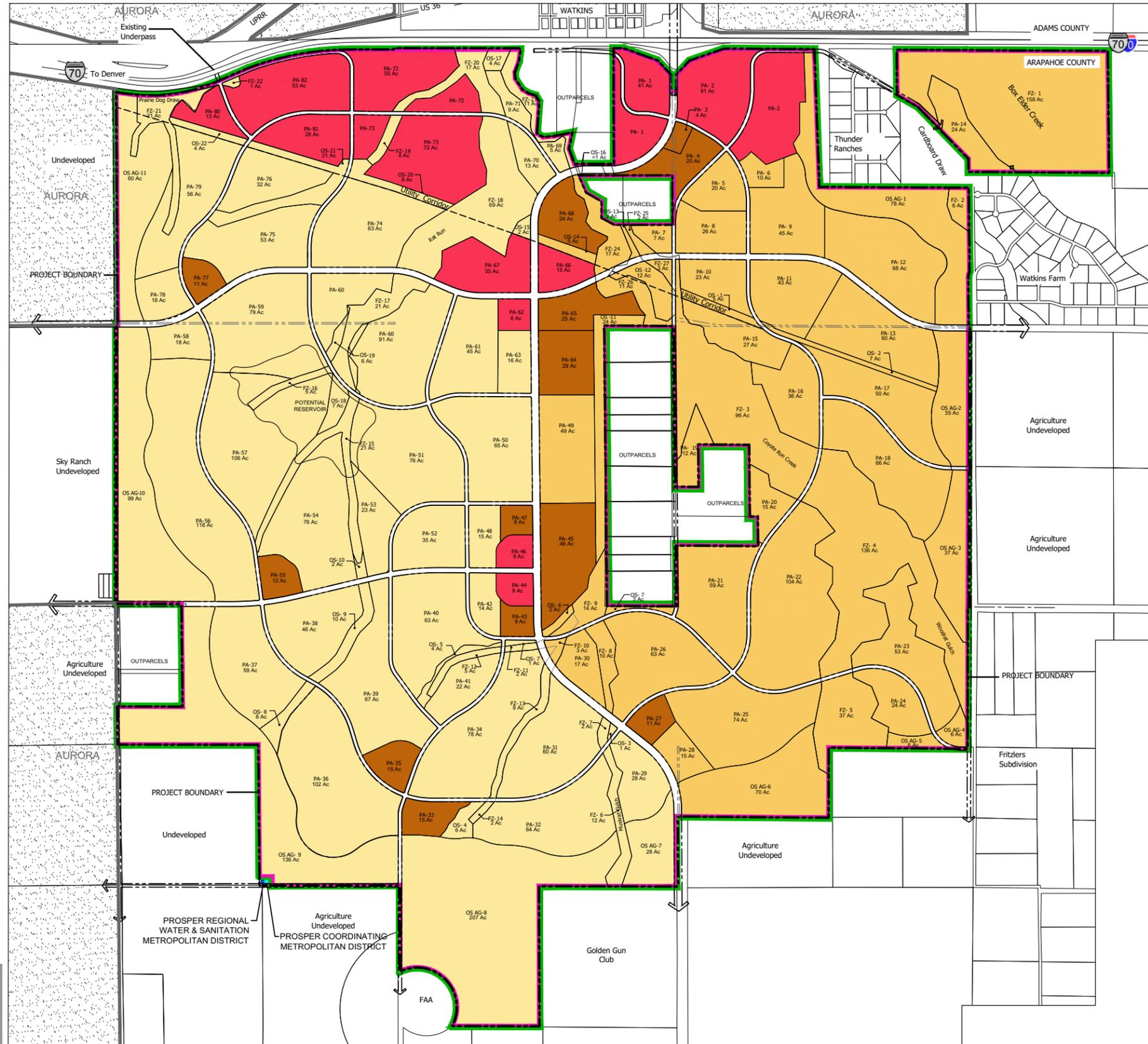
It is anticipated that the Financing Districts will also levy 10 mills for operation, maintenance and administrative costs of the Districts, which will be provided by the Coordinating District.

## **Summary**

The proposed multiple District structure will assure that all public improvements necessary to serve the Development can be financed, constructed, operated and maintained in a coordinated manner over time phased to accommodate development as it occurs and on a basis that will not unduly burden any portion of the property.

# PROSPER

PARCELS OF LAND SITUATED IN SECTIONS 5, 6, 7 & 18, T.4S., R.64W.,  
AND SECTIONS 1, 2, 11, 12, 13, 14 & 24, T.4S., R.65W., OF THE 6TH P.M.  
COUNTY OF ARAPAHOE, STATE OF COLORADO  
ARAPAHOE COUNTY 1041 PERMIT  
EXHIBIT 6-b-1 - DISTRICT PLAN



## LEGEND

### DISTRICTS

- PROSPER REGIONAL WATER & SANITATION METROPOLITAN DISTRICT
- PROSPER COORDINATING METROPOLITAN DISTRICT
- PROSPER WATER & SANITATION FINANCING METROPOLITAN DISTRICT
- PROSPER PARK & RECREATION FINANCING METROPOLITAN DISTRICT
- PROSPER METROPOLITAN DISTRICT NO.1
- PROSPER METROPOLITAN DISTRICT NO.2
- PROSPER METROPOLITAN DISTRICT NO.3
- PROSPER METROPOLITAN DISTRICT NO.4

**FISCAL IMPACT OF PROSPER ON ARAPAHOE COUNTY**  
PREPARED BY COLEY/FORREST, INC. – MAY 15, 2012

---

**SUMMARY.** A fiscal impact model has been built to measure financial effects of development in Arapahoe County. The model is unique to Arapahoe County and is calibrated using the 2012 Arapahoe County Budget.

The model estimates annual revenues and annual expenditures for nine funds that are summarized in the table below. Other funds have been excluded from the model; reasons for excluding each of these funds are summarized in Appendix A.

FUNDS INCLUDED IN THIS ANALYSIS
Arapahoe Law Enforcement Authority Fund
Capital Expenditures Fund
Central Services Fund
Conservation Trust Fund
Development Disabilities Fund
General Fund
Open Space Sales Tax Fund
Road and Bridge Fund
Social Services Fund

The model measures anticipated revenues and expenditures for Prosper, a proposed development in unincorporated Arapahoe County. At build-out, the proposed Prosper development will include approximately 8,801 <sup>1</sup> residential units, and 8.1 million square feet of privately-constructed non-residential uses, including office, retail, service, industrial/warehouse, medical campus, and lodging.

This submittal includes text which summarizes key input assumptions plus five appendices.

Appendix A summarizes funds included and excluded from the analysis.

Appendix B summarizes how the fiscal model estimates revenues.

Appendix C summarizes how the fiscal model estimates expenditures for each Department.

Appendix D summarizes the assumptions that underlie the population and employment forecasts.

Appendix E summarizes how the Sales Tax Revenue calculations were derived.

Appendix F contains the fiscal impact model run results, Tables 1 through Table 16. (Tables 17 and 18 are very detailed absorption estimates that are collapsed into Table 2, Absorption.)

The fiscal impact model contains 18 linked spreadsheets. Each displays different information. They are listed in the table on the following page.

---

<sup>1</sup> The land use plan proposes 9,000 residential units; this total includes lodging units. The fiscal impact model separates lodging out into a separate category.

---

---

TABLE OF CONTENTS - FISCAL IMPACT ANALYSIS

---

Table # Table Name

*Real Estate and Development Assumptions*

- 1 Key Assumptions - This Model Run
- 2 Absorption, Real Estate Values, Population, Employment, Assessed Values
- 3 Prosper - Equivalent Dwelling Unit (EDU) Calculations
- 4 County Equivalent Dwelling Unit (EDU) Calculations
- 5 Development Assumptions
- 6 Registered Motor Vehicles

*Summary Results:*

- 7 Revenue and Expenditure Summary

*Revenues:*

- 8 Revenues
- 9 Revenue Metrics and Calculation Methods
- 10 Revenue Detail: Sales Tax Revenues
- 11 Revenue Detail: Lodging Revenue Detail
- 12 Revenue Detail: Use Tax Revenues on Building Materials
- 13 Revenue Detail: Building Permit, Plan Review Fees
- 14 Revenue Detail: Fees, Charges-for-Service, Fines

*Expenditures*

- 15 Expenditures
- 16 Expenditure Metrics and Calculation Methods

*Prosper: Absorption by Planning Area and Product Type*

- 17 Residential Absorption Detail
- 18 Non-Residential Absorption Detail

**PROSPER DEVELOPMENT SUMMARY.** Prosper is proposed as a new type of mixed use development in Arapahoe County to be constructed with substantial sensitivity to the natural environment and with community amenities and job opportunities to attract a broad mix of households seeking suburban, exurban and rural lifestyles.

The fiscal impact model results presented below apply the following development assumptions.

PROSPER DEVELOPMENT AT BUILD-OUT – 30 YEAR ABSORPTION SCHEDULE	
PARAMETER	UNITS OR BLDG. SQUARE FEET
Residential ■	
Low-Density Units	1,107
Medium-Density	5,241
High-Density & Mixed Use	<u>2,453</u>
Total Residential ◇	8,801
Office	
Office	1,526,175
Office-Flex □	<u>1,486,650</u>
Total Office	3,012,825
Service	461,000
Retail	
Community Retail	550,000
Regional Retail	<u>1,855,000</u>
Total Retail	2,405,000
Lodging	150,000
Industrial	959,175
Medical Campus ◆	1,120,000
TOTAL NONRESIDENTIAL SF	8,108,000
Sites for five K-8 and one high school will be provided	527,000
Estimated Population at Build-Out	22,344
Estimated Households (Occupied Units) at Build-Out	8,361
Estimated Jobs at Build-Out	24,573
<p>■ The three categories of residential in the fiscal impact model are collapsed down from 12 proposed categories. The full range of residential housing pricing ranges from \$150,000 to \$350,000 in 2012 dollars.</p> <p>◇The land use plan proposes a total of 9,000 residential units, which includes lodging. The fiscal impact model distinguishes between residential units and lodging units because of the fiscal effects are different.</p> <p>□ Office/Flex is a commercial land use that permits office, showroom, warehouse, and light industrial within one building. Typically, office and showroom areas are located on the front of the building; warehouse and light industrial uses located to the rear or side.</p> <p>◆ Medical Campus is a series of medical uses and buildings within a campus configuration.</p>	

Annual absorption estimates are presented in more complete detail in Tables 2, 17 and 18 of the fiscal model. These absorption estimates are only approximations based on the developer's best judgment at this time. The developer does not warrant that these forecasts will actually occur.

**MODEL FEATURES & MAJOR WORKING ASSUMPTIONS.** The model estimates annual revenues generated by Prosper and expenditures incurred by the County to serve Prosper from nine County Funds listed in a prior page.

Year 1 of the fiscal model is year 1 of construction. Current assessed valuation for this primarily agricultural assembly of properties and current costs to deliver services to the property are excluded from the analysis.

*Taxpayer's Bill of Rights (TABOR).* In November 1992, the voters adopted an amendment to Article X of the State Constitution known as the Taxpayer's Bill of Rights (TABOR). This amendment limits growth in both local government revenues and expenditures, and may have the effect of ratcheting down both revenues and expenditures. In addition to TABOR limitations, there is a statutory limitation that constrains property tax revenue growth to 5.5% per year with adjustments.

The fiscal impact model does not assume any revenue or expenditure constraints attributable to TABOR or the statutory limitation because these constraints need to be calculated at a countywide level in each future year.

*New Development Impacts on Existing Development.* Any new development can have an indirect and counterbalancing adverse impact on existing competitive development particularly if the existing development is dated; it can also have a positive impact on complementary development. A typical example of a counterbalancing impact would be the "cannibalization" that new retail may have on existing retail within the same competitive market area.<sup>2</sup> Another counterbalancing impact might be a negative impact on the value of existing and dated office or industrial buildings due to the presence of newer office and industrial buildings. An example of a positive impact would be the introduction of complementary retail, office, schools and public sector service buildings in a primarily residential community.

- Prosper is close to the boundary between Arapahoe and Adams County. Given its location, it will likely have a complementary impact on the existing and planned primarily residential development nearby in both counties.

---

<sup>2</sup> Market cannibalization is the adverse impact on sales that a retailer has other competitive retailers in the same trade area. For example, retail sales generated by a new convenience store in a trade area that already has other convenience stores will cannibalize (take away) some retail sales at the other convenience stores, assuming that the trade area customers have not grown sufficiently to accommodate one more convenience store. The amount will depend on the quality and detail product mix of each retailer and location.

In contrast, to the extent that a new retailer sells products that are not sold elsewhere in the retail trade area, it will not cannibalize other retailers in the trade area. Rather, it will attract additional retail sales to the trade area.

- This model does not assume any negative impact on property values of other office, industrial, medical or lodging development in Arapahoe County since it is a relatively free-standing community. The potential magnitude of adverse impacts is likely to be small, rather indirect and difficult to quantify. Also, most potential negative competitive impacts may more likely occur in Adams County.
- Prosper may have a counterbalancing cannibalization impact on the closest retail development in Arapahoe County and Adams County, although there are no relatively close retailers at this time. It might also have a counterbalancing impact as residents of Adams County select this shopping location over another in Adams County. To be conservative, a potential retail cannibalization impact factor has been accounted for in the model.

***Incremental Revenues and Expenditures.*** This fiscal model estimates incremental tax and fee revenues that Arapahoe County is expected to receive from Prosper and incremental expenditures that Arapahoe County is expected to incur to serve Prosper because, from a practical perspective, that is the circumstance that will occur as the development proceeds.

Because the model estimates incremental expenditures, it was necessary to distinguish between relatively fixed costs that do not change as the County grows and variable or growth-related costs that increase as the County grows. A few examples of relatively fixed expenditures include upper management personnel and support staff, related operations and building maintenance of administrative structures. A few examples of variable or primarily growth-related expenditures include purchase of supplies, direct service vehicles, and direct-service delivery personnel. The model includes variable or growth-related costs only.

***Expenditure Metrics.*** Each expenditure metric (equation) is summarized in Appendix C and quantified in Table 15 using expenditure metrics in Table 16. The equations apply adjustments to the 2012 Arapahoe County Budget by department as they relate to the funds included in the analysis. Each equation includes some judgments such as the proportion of expenditures that are attributable to new growth versus the proportion that are relative fixed and unrelated to new growth.

The judgments are intended to be reasonable, conservative approximations of current conditions. However, they are not based on detailed activity analysis and have not been reviewed with individual department heads.

***Equivalent Dwelling Unit (EDU).*** A denominator called an Equivalent Dwelling Unit (EDU) is applied to most of the expenditure figures. EDUs are units of measure that standardize all land use types (housing, retail, office, etc.) to the level of demand created by one dwelling unit. When the concept is applied to broadly distributed government services such as those in this fiscal impact analysis, the philosophy is that an employee is a "resident" of the County for about 8 to 9 hours of the 24 hour day, hence a 35% factor is applied to employees and a 100% factor is applied to residents. If someone lives and works in the County, then they are appropriately counted twice. If the concept were applied to transportation, then the measurement standard would be vehicle trips; if the concept were applied to sewer service, then the measurement standard would be the amount of sewer treatment required by an average household.

**Revenues = Expenditures.** For five funds (Conservation Trust Fund, Capital Expenditures Fund, Developmental Disabilities Fund, Open Space Sales Tax Fund, and Social Services Fund), the model simply assumes revenues equals expenditures. While this technique generates no “net revenues” by definition, the analysis quantifies substantial sales and use revenues that will be available to the County for open space land acquisition or improvements in the unincorporated portions of the County, Conservation Trust Fund (Lottery) Revenues, and capital expenditures revenues available for the County's discretionary use.

**Development Assumptions** regarding construction values, market or actual values, taxable sales per square foot, lodging room rate and vacancy rate, etc. are bundled in Table 3 so the reviewer has easy, comprehensive access to the figures. The commercial appraisers in the Assessor's office were helpful in providing "comps" used to estimate market or actual values. Residential market values have been estimated by Prosper.

**Inflation Rates.** The model is set up so that the reviewer or user may apply different rates of inflation for real estate values (Table 3), County revenues (Table 9) and expenditures (Table 16). All model runs presented in this text assume no inflation for revenues and expenditures so results can be observed without inflation effects.

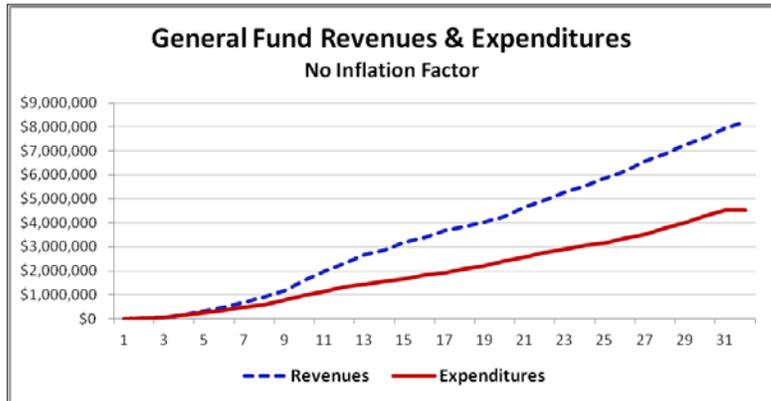
**Annual Absorption Schedule, Households, Population and Employment.** The annual absorption or construction schedule extends over a 30-year time horizon; details are summarized in Table 2. The working assumptions that underlie the household, population and employment assumptions are summarized in Appendix D and Table 3. The model is built for a 32-year time period so that results can be observed without construction activity and with all relevant property tax revenues.

**Sales Tax Allocation to Land Uses.** A significant judgment factor in the model is in the sales tax allocation method. This is an art, not a science. Two methods are calculated:

- *On-Site Sales Tax Revenues.* (Method A) This method assigns 100% of sales tax revenues from on-site retailers but no sales tax revenue from on-site households.
- *Shared Attribution.* (Method B) This method assigns a portion of sales tax revenues from on-site retailers and a portion of sales revenue from on-site households, making appropriate counterbalancing adjustments for “cannibalization” and potential double counting. The method and parameters are consistent with the type of analysis that the City of Aurora typically applies to developments with retail uses. (We are unaware of a comparable methodology used in Arapahoe County.) Detailed methodology is explained more fully in Appendix E and quantified in Table 10 using working assumptions provided in Table 3.

**MODEL RUN RESULTS.** A summary of fiscal impact model results are presented below and detailed more specifically in Tables 7, 8 and 15.

**General Fund Model Results.** An illustration of annual General Fund revenues generated by Prosper and annual expenditures incurred by the County to provide General Fund services to Prosper is presented in the graph to the right and in detail in the fiscal model spreadsheets.

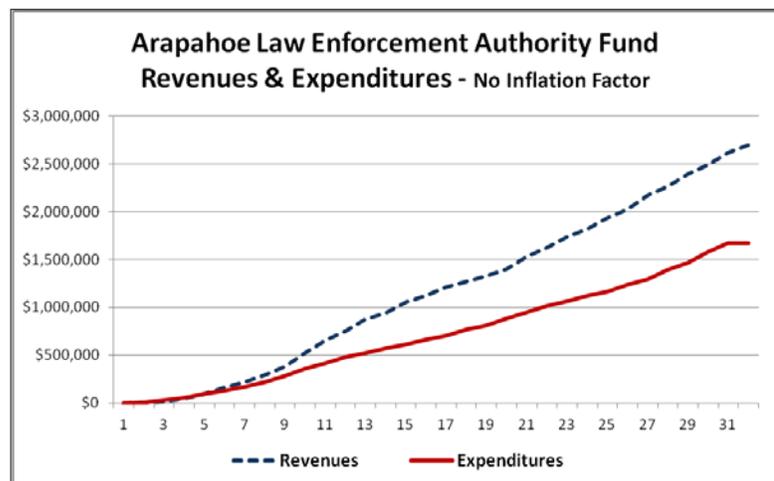


Estimates for the Year 32 are highlighted below because this year is indicative of on-going annual revenues received from Prosper and annual expenditures incurred by the Arapahoe County to serve the Prosper development.

GENERAL FUND – YEAR 32 (EXCLUDING PLANNING & BUILDING DIVISIONS)		
Annual Revenues	Annual Expenditures	Net revenues
\$8,148,995	\$4,539,815	\$3,609,180
Source: Fiscal Impact Model Table 7		

Since there will be substantial one-time development fees during the 30-year absorption time period, the model conservatively assumes that these one-time development fee revenues will equal County expenditures to deliver related services. Over the 30-year construction period, total development fee revenues (excluding use tax revenues) are estimated to total \$28.2 million, excluding inflation. Since Year 1 of the model is the first year of construction, pre-construction fees such as 1041 Application fees and service district fees are excluded.

**Arapahoe Law Enforcement Authority Fund Model Results.** An illustration of the estimated Arapahoe Law Enforcement Authority Fund revenues and expenditures is presented in the graph to the right and in detail in the model spreadsheets. In the early years, expenditures are slightly greater than revenues since a substantial proportion of revenues are from property taxes which are received two years after construction.



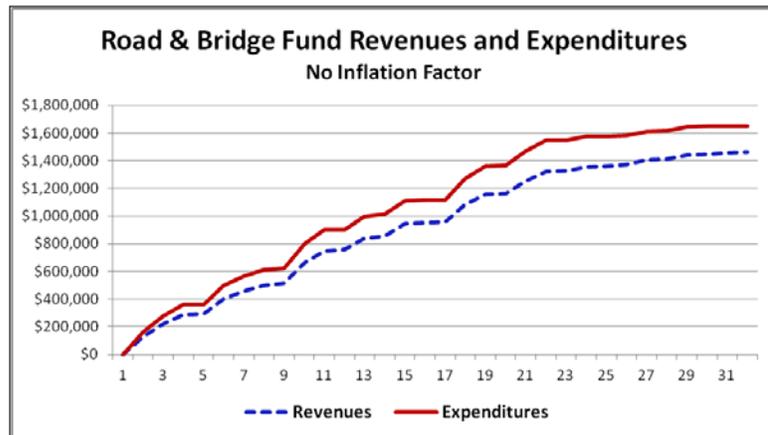
Estimates for the Year 32 are highlighted below because this

year is indicative of on-going annual revenues received from Prosper and annual expenditures incurred by the Arapahoe County to serve Prosper.

ARAPAHOE LAW ENFORCEMENT AUTHORITY FUND – YEAR 32		
Annual Revenues	Annual Expenditures	Net revenues
\$2,693,795	\$1,670,771	\$1,023,024
Source: Fiscal Impact Model Table 7		

**Road & Bridge Fund Model Results.** This Fund primarily provides road maintenance and snow removal services for roads primarily in unincorporated Arapahoe County.

An illustration of Road & Bridge Fund revenues and expenditures are presented in the graph to the right and in detail in the fiscal model spreadsheets. Expenditures are higher than revenues because the model assumes that all Prosper roads (248 lane miles at build-out) will be maintained by the County. Currently, the County maintains about 1,569 lane miles.



Estimates for the Year 32 are highlighted below because this year is indicative of on-going annual revenues received by Prosper and annual expenditures incurred by the Arapahoe County to serve Prosper.

ROAD & BRIDGE FUND – YEAR 32		
Annual Revenues	Annual Expenditures	Net revenues
\$1,465,022	\$1,652,198	(\$187,176)
Source: Fiscal Impact Model Table 7		

**Other Funds – Model Results.** For the other funds represented in the fiscal model, expenditures are assumed to equal revenues.

- For the Capital Expenditures Fund, revenues include property tax from the dedicated mill levy and specific ownership tax. Expenditures, which may be primarily in the unincorporated portion of the County, are assumed to equal revenues. Cumulative revenues over the 32-year time period are estimated to total \$4.6 million.
- For the Conservation Trust Fund, Lottery revenues are estimated based on the State's per capita formula for population residing in the unincorporated portions of the county. Cumulative revenues over the 32-year time period are estimated to total \$2.3 million.

- For the Open Space Sales Tax Fund, sales tax revenues are calculated with two methods described below. The “shared attribution” sales tax calculation method only assigns incremental sales tax revenues after subtracting a figure for “cannibalization.” Use tax revenues are derived from estimates of construction building materials. The net revenue figure that appears below is after subtraction for revenues provided to cities and towns and revenues for the competitive grant fund. Cumulative revenues over the 32 year time period are estimated to total \$8.1 million.
- For the Developmental Disabilities and Social Services Funds, property tax from the dedicated mill levies and specific ownership tax revenues are estimated. The more substantial revenues from state and federal funding are excluded from both revenues and expenditures.

The table below summarizes estimated annual revenues and expenditures for each of these funds in Year 32.

OTHER FUNDS – YEAR 32 ANNUAL REVENUES & ANNUAL EXPENDITURES		
Fund	Annual Revenues	Annual Expenditures
Capital Expenditures	\$ 326,629	\$ 326,629
Conservation Trust	\$ 168,406	\$ 168,406
Developmental Disabilities	\$ 503,614	\$ 503,614
Open Space Sales Tax	\$ 445,227	\$ 445,227
Social Services	\$ 843,636	\$ 843,636
Source: Fiscal Impact Model Table 7		

**APPENDIX A:  
COUNTY FUNDS INCLUDED AND EXCLUDED FROM ANALYSIS**

FUND	INCLUDED?	REASON / REMARKS
General	Yes	This is the primary operating fund of the County. Generally, transfers out of the General Fund are included as expenses. Transfers into the General Fund are counted as an expense in the originating fund, if the fund is part of the fiscal model.
Arapahoe County Fair	No	This fund is substantially self-sufficient. Revenues are primarily from fees and rental income. It does not correlate with real estate development.
Arapahoe County Recreation District	No	This district does not serve property in Prosper.
Arapahoe County Water and Wastewater PID	No	This capital project fund functions like an enterprise fund and is excluded from the fiscal model.
Arapahoe / Douglas Works!	No	Programs are federally funded through the State of Colorado which acts as a pass-through. It is excluded because it receives minimal local revenues and does not correlate with real estate development.
Arapahoe Law Enforcement Authority	Yes	The Authority is a separate jurisdiction that serves the unincorporated areas of the county. Since it is governed by the Board of County Commissioners and is part of the 2012 County Budget, it is included in this analysis.
Board Designated Reserve	No	Historically, this fund received a transfer from the General Fund. It accounts for the BOCC's policy reserves and TABOR designated reserves. No revenues are anticipated in 2012. Expenditures are for emergencies and are not predictable or growth-related.
Building Finance Corporation Fund	No	This debt service fund accounts for certificates of participation payments. Revenues are from lease payments from the General Fund. This fund is excluded because revenues and expenditures are already represented in the General Fund.
Building Maintenance	No	This fund manages facility maintenance costs and related projects. It is funded by on-going transfers from the General Fund. The fiscal model captures this activity in the General Fund.
Capital Expenditure	Yes	This fund receives revenues from a dedicated mill levy and transfers some revenues to the Infrastructure Fund. The model assumes revenues generated by the dedicated mill levy equal expenditures. The model does not include revenue transfers from the General Fund (Administrative Services) to

**APPENDIX A:  
COUNTY FUNDS INCLUDED AND EXCLUDED FROM ANALYSIS**

FUND	INCLUDED?	REASON / REMARKS
		this fund because they are already recorded as an expense of the General Fund.
Cash In Lieu	No	This fund receives revenues from developers in unincorporated areas. No revenues are budgeted for 2012.
Central Services	Yes	This is an internal services fund. Fixed asset purchases are budgeted through this fund and then leased to individual departments. The model accounts for these department-specific expenditures in the departments in which the assets are used.
Communications Network System Replacement Fund	No	This fund provides funding for replacement of the County Radio Communication system from the County and other local governments. County's contribution is transferred from operational departments. The fiscal model captures these costs from operational departments.
Community Development	No	Revenues are primarily from the federal government and driven by formulas. There are no transfers in or out. Fund activity is not correlated with new growth.
Conservation Trust	Yes	This fund accounts for Colorado lottery revenues received by Arapahoe County on a formula-driven basis.
Contingency & Emergency Reserve	No	This fund is excluded because it does not correlate with growth.
Developmental Disabilities	Yes	Revenues are derived from property taxes. The fiscal analysis assumes that expenditures equal revenues.
Employee Flex Benefit Plan	No	This fund covers flexible medical expenses. Revenues are collected through a payroll deduction from employees. The fund is self-sustaining and not correlated with growth.
Electronic Filing Technology Fund	No	This relatively small special revenue fund is managed by the Clerk and Recorder's office. In 2012, intergovernmental revenues are budgeted to equal expenditures. It is excluded from the fiscal model.
Forfeited Property	No	This fund receives money from drug related seizures. Revenues are unpredictable and not correlated with real estate development. No 2012 revenues are anticipated.
Grant	No	This fund contains diverse grant funds from federal, state and local sources that are external to the County. It does not correlate with real estate development.
Homeland Security	No	This fund receives Federal funds for homeland security and emergency operations planning. It does not correlate with real estate development. No 2012 revenues are anticipated.

**APPENDIX A:  
COUNTY FUNDS INCLUDED AND EXCLUDED FROM ANALYSIS**

FUND	INCLUDED?	REASON / REMARKS
Infrastructure	No	This capital projects fund tracks construction costs of road, highway and drainage projects. Anticipated 2012 revenues are transfers from the Capital Expenditures Fund. The Capital Expenditures Fund is included in the fiscal impact model. The model excludes transportation improvement fee revenues because they have been suspended for now.
Lease Purchase Agreements	No	This debt service fund accounts for five lease purchase agreements. Revenues are from fund transfers associated with each lease payment; expenditures are accounted for elsewhere as an expense in the originating department.
Open Space Sales Tax	Yes	Open space sales and use tax revenues are estimated. Revenues exclude formula driven allocations to cities and a special competitive grant fund.
Road and Bridge	Yes	This fund is established by Colorado Statute. Revenues in the fiscal model are from property and specific ownership taxes retained by the County, and the Highway Users Tax Fund.
Self Insurance Dental	No	This is a self-insurance fund. Costs associated with the fund are already represented in the General Fund departmental budgets.
Self Insurance Liability	No	This is a self-insurance fund. Costs associated with the fund are already represented in the General Fund departmental budgets.
Sheriff's Commissary Fund	No	Although not formally an enterprise fund, this fund functions like a commissary within the County Jail. It is not correlated with growth and is excluded from the analysis.
Social Services Fund	Yes	This fund is used by the Human Services Department. Most funding (73%) is from state and federal grants and service agreements. The remainder is primarily from property and specific ownership tax. The model assumes property and specific ownership tax revenues received equals expenditures and that the state and federal grant programs are self-sustaining. In 2011 and 2012, there are anticipated negative fund balances, but these conditions are assumed to be anomalies that will not continue.
Worker's Compensation Fund	No	This is a self-insurance fund. Costs associated with the fund are already represented in the General Fund departmental budgets.

**APPENDIX B: METHOD TO CALCULATE REVENUES**

REVENUE	FUNDS	METHOD
Property Taxes	Arapahoe Law Enforcement, Capital Expenditures, Developmental Disabilities, General, Road & Bridge, Social Services	<p>The mill levy is set by the County Commissioners in December of each year on taxable assessed valuation. The model assumes that the levies set in December 2011 for the 2012 Budget will remain constant for the 32-year study period.</p> <p>The model assumes the relationships between actual and assessed values will remain constant in future years. Table 2 provides estimated actual values for each type of property based on metrics contained in Table 3.</p> <p>The model excludes 50% of the Road and Bridge Fund levy that is shared back among municipalities.</p>
Specific Ownership Tax	Arapahoe Law Enforcement, Capital Expenditures, General, Road & Bridge, Social Services	<p>This tax is levied on vehicle ownership and is collected when license plates are renewed; the tax is proportional to the value and age of each vehicle. Revenues are collected at the County level and distributed to each government organization receiving property tax revenues, proportional to expected property tax revenues.</p> <p>For each fund receiving specific ownership tax revenues, the model calculates budgeted 2012 specific ownership tax revenues per registered motor vehicle. Registered motor vehicles are provided by the State Department of Revenue.</p>
Sales and Use Tax Revenue	Open Space Fund	<p>The County imposes a 0.25% sales and use tax. All revenues go into the Open Space Fund. Appendix D describes how sales tax revenues are calculated; see Table 10 for sales tax revenue estimates. Use tax revenues on building materials are calculated by estimating building materials values; see Table 12 for detailed revenue calculations.</p>
Licenses and Permits	General Fund	<p>For purposes of the fiscal model, all licenses and permit revenues are reflected in this calculation, except for building inspection permits and a few types of licenses that have no or minimal revenues. Some licenses and permits are issued primarily to residents and businesses in unincorporated areas and others are issued countywide.</p> <p>The fiscal model calculates relevant licenses and permits that are applicable to unincorporated households, unincorporated businesses, countywide households and countywide motor vehicles. See Tables 9 and 14 for details.</p>

**APPENDIX B: METHOD TO CALCULATE REVENUES**

REVENUE	FUNDS	METHOD
Charges for Services	General Fund Arapahoe Law Enforcement Fund	<p>General Fund charges-for-services are imposed by the Assessor, Clerk &amp; Recorder, Coroner, Public Works, Sheriff and Treasurer. All General Fund charges for services are consolidated in a single calculation except for charges that generate relatively minimal revenues, are internal between County departments, are attributable to enterprise funds or are development-related charges. General Fund charges for services are generally imposed countywide; Arapahoe Law Enforcement Fund charges for services are generally imposed in unincorporated areas.</p> <p>Depending on the type of charge-for-services, the model applies a forecast standard based on countywide or unincorporated areas households, businesses, motor vehicles, assessed values or actual values. See Tables 9 and 14 for detailed calculations.</p>
Fees & Fines	General Fund; Arapahoe Law Enforcement Fund	<p>General Fund fees and fines are consolidated in a single calculation except for fees that generate relatively minimal revenues, are internal between County departments, are attributable to enterprise funds or are development-related. General Fund fees tend to be collected throughout the county. Arapahoe County Law Enforcement Fund fees are generally imposed in unincorporated areas.</p> <p>Depending on the fee, it is attributable to countywide or unincorporated area households, businesses, or motor vehicles. See Tables 9 and 14 for detailed calculations.</p>
Miscellaneous Fees	General Fund	There are a few miscellaneous fees that are allocated to countywide households and businesses.
Development Related Fees	General Fund, Infrastructure Fund ( <i>transportation improvement fee only</i> )	<p>Development related fees occur only once, at the rezoning, platting or construction stage.</p> <p>Since "year 1" of the fiscal impact model is the first year of construction, a number of pre-construction fees, such as special district requests, are excluded from the model. The fiscal model assumes preliminary plat submittal every three years, based on the future forecasted development activity.</p> <p>These fees are included:                      Planning Division: Final Development Plan, Final Plat, Preliminary Development Plan, Preliminary Plat                       Building Division: Building Permit Fees, Plan Review Fees</p>

**APPENDIX B: METHOD TO CALCULATE REVENUES**

REVENUE	FUNDS	METHOD
		<p>Engineering Services Division: Major case – Preliminary Plat, Major Case- Final Plat, Drainage Master Planning Fee</p> <p>Open Space Fund: Use Tax on Building Materials. This tax extends through 12/31/23. The model assumes that voters will extend this tax for the duration of the construction schedule.</p> <p>Infrastructure Fund: Transportation impact fee. No revenues are calculated at this time since the County has suspended this fee.</p> <p>Some development related permits, charges and fees are excluded because the total annual revenues are relatively minimal; an example is grading permits. Other permits, charges and fees are excluded because they are unpredictable; examples include replat and special hearing fees. Developer contributions and cash-in-lieu payments are excluded because revenues are expenditures are offsetting. See Tables 9 and 13 for detailed calculations.</p>
<p>Cigarette Tax <i>(State shared revenues)</i></p>	<p>General Fund</p>	<p>The State levies a flat tax on cigarette sales and distributes a portion of the revenues to municipalities and counties based on their proportion of State sales tax revenues collected. Revenues to counties are based on sales in the unincorporated portion of the County only. The fiscal model estimates cigarette sales tax revenues as a percent of County taxable sales in unincorporated Arapahoe County, provided by the Colorado Department of Revenue.</p>
<p>Conservation Trust Fund (Lottery Revenues) <i>(State-shared revenues)</i></p>	<p>Conservation Trust Fund</p>	<p>Colorado lottery net proceeds are distributed as follows: 40% to Conservation Trust Fund; 50% to State Capital Construction Fund; 10% to State Parks and Recreation. Local governments receive a portion of Conservation Trust Fund revenues on the basis of population and their per capita share. The County receives revenues on a per capita basis from residents that reside in unincorporated areas that are also in park and recreation districts ("districted" population) and residents in unincorporated areas which are outside of park and recreation districts ("nondistricted" population). Districted population counts at 50%. The model estimates lottery revenues on a per capita basis, assigning districted population at 50%.</p>

**APPENDIX B: METHOD TO CALCULATE REVENUES**

REVENUE	FUNDS	METHOD
State Highway Users Trust Fund Revenues	Road and Bridge Fund	<p>HUTF revenues are collected by the State and distributed among the State, counties and municipalities. HUTF revenues are from gas and special fuels tax, state sales tax attributable to motor vehicles and parts, various motor vehicle registration title, and license fees.</p> <p>Each county receives a share of the county portion of HUTF based on a three-tier funding formula. For simplicity, the Arapahoe County share of HUTF is estimated on the basis of lane miles. CDOT estimated that lane mile on roads under Arapahoe County jurisdiction (excluding Colorado highways, municipal roads and toll roads) totaled 1,568.84 in 2010. The fiscal model uses this lane mile figure as a denominator in revenue calculations.</p>
Earnings on Investments	General	The model estimates earning on revenues generated based on the average percent of earnings in the 2012 Budget.

**APPENDIX C: METHOD TO CALCULATE EXPENDITURES**

DEPARTMENT	2012 BUDGET	REMARK / EXPENDITURE EQUATION
Administrative Services	In General Fund: \$17,751,877	This is a group of cost centers that account for expenses not related to any one department. This model focuses on Administrative Services provided to the General Fund. All expenditures are included in the fiscal model after adjustments to exclude mineral severance tax, cost allocation – welfare and interfund revenues and rentals. A substantial portion of these expenditures are transfers out to other funds and divisions. These transfers out are included in the figures. Remaining expenditures are calculated on the basis of countywide EDUs.
Assessor	\$5,216,087	After specific downward adjustments to account for department head and related employee benefits and a general 10% adjustment for other non-growth related costs, all remaining expenditures are allocated per \$1,000 of actual value.
Board of County Commissioners and BOCC Administration	\$1,534,183	After specific adjustments to account Commissioner and department head salaries and benefits and a general 10% adjustment for non-growth related costs, remaining expenditures are calculated on the basis of countywide EDUs.
Clerk & Recorder	\$9,911,119	<p>This office provides several distinct services. Specific downward expenditure adjustments associated with each are discussed below:</p> <p>Administration: Adjustment for costs associated with department head and related employee benefits.</p> <p>Recording: No specific adjustments.</p> <p>Elections Administration: Adjustment for transfer in from Central Service.</p> <p>Elections Contingency: No specific adjustments.</p> <p>Motor Vehicle: Adjustments for City Sales Tax collection fees, E-470 fees and HB04-1193 fees.</p> <p>A general adjustment of 10% for non-growth related costs is also applied. Remaining expenditures are calculated on the basis of countywide EDUs, but for motor vehicles, which are calculated on the basis of motor vehicles.</p>

**APPENDIX C: METHOD TO CALCULATE EXPENDITURES**

<b>DEPARTMENT</b>	<b>2012 BUDGET</b>	<b>REMARK / EXPENDITURE EQUATION</b>
Communications Services	\$1,271,618	Communications Services includes administration and print services. After specific downward adjustments are applied for department head costs and Intrafund Revenues and Rentals and a general downward adjustment of 10% for non-growth related costs, remaining expenditures are assigned on the basis of countywide EDUs.
Community Resources	General Fund: \$877,400	The Community Resources Department provides services primarily with revenues from federal and state grant sources. This analysis focuses only on services provided by the General Fund. After specific adjustments for interfund cost allocation revenues and department head expenses, and a general downward adjustment of 10% for non-growth related expenditures, remaining expenditures are assigned on the basis of countywide EDUs.
Central Services	In General Fund: \$2,256,644	All expenditures but for intergovernmental revenues are included in the fiscal model. Remaining expenditures are assigned on the basis of countywide EDUs.
Coroner's Office	\$1,560,613	The Coroner provides services throughout the County. After specific downward adjustments department head costs and a general downward adjustment of 10% for non-growth related expenditures, remaining expenditures are assigned on the basis of countywide EDUs.
County Attorney	In General Fund: \$2,600,687	The County Attorney provides advice to all County departments and represents the County on legal matters. After specific adjustments for department head costs, and a general downward adjustment of 10% for non-growth related expenditures, remaining expenditures are assigned on the basis of countywide EDUs.
District Attorney	\$11,568,115	The District Attorney performs duties in District Court on behalf of County residents and the County government. No specific downward adjustments are calculated because expenditure detail is not available; a general 10% adjustment is applied for non-growth related expenditures. Remaining expenditures are assigned on the basis of countywide EDUs.
Facilities and Fleet Management	In General Fund: \$9,376,720	This department provides building maintenance, vehicle and equipment services to all County departments. Expenditures in the General Fund are represented in the fiscal model. After specific adjustments for Interfund Revenues and Rentals and costs related to the department head, and a general downward adjustment of 10% for non-growth related expenditures, remaining expenditures are assigned on the basis of countywide EDUs.

**APPENDIX C: METHOD TO CALCULATE EXPENDITURES**

DEPARTMENT	2012 BUDGET	REMARK / EXPENDITURE EQUATION
Finance	\$2,990,911	After specific adjustments for department head costs and a general 10% adjustment for non-growth related expenditures, remaining expenditures are assigned on the basis of countywide EDUs.
Human Resources	\$1,518,408	This internal administrative service department provides compensation packages and benefits to County employees. After specific adjustments for department head costs and a general 10% adjustment for non-growth related expenditures, remaining expenditures are assigned on the basis of countywide EDUs.
Human Services	In Social Services Fund: \$49,923,319	This department provides social services, using substantial state and federal funding plus County property tax revenues from a dedicated mill levy. This analysis assumes property and specific ownership tax revenues generated by Prosper equals expenditures. The substantial amount of state and federal funding and related costs are excluded from the fiscal model.
Information Technology	In General Fund: \$12,103,467	The IT Department in the General Fund provides services to other County departments. After specific adjustments for department head costs and a general 10% adjustment for non-growth related expenditures, remaining expenditures are assigned on the basis of countywide EDUs.
Office of Strategic Management	\$260,481	After specific adjustments for department head salary and benefits, remaining expenditures are assigned on the basis of countywide EDUs.
Open Spaces and Intergovernmental Relations	In General Fund: \$63,734	All expenditures are included in the fiscal model and are assigned on the basis of countywide EDUs.
Public Works and Development	In General Fund: \$6,470,108	The fiscal model includes all expenditures, excluding fixed costs associated with the department head salary and benefits, intragovernmental revenue for animal control and mosquito control reimbursement, and all costs related to planning and building inspections. Remaining expenditures are assigned on the basis of countywide EDUs. Planning and building inspections expenditures are equal to extensive one-time development fee revenues from Prosper.
Public Works and Development	In Road & Bridge Fund: \$15,579,193	<i>Indirect Expense and Administration Categories.</i> After a specific adjustment for grant in aids to cities and towns and a general 10% adjustment for non-growth related expenses, the remaining expenditures are allocated on the basis of countywide EDUs.  <i>Road Maintenance Expense Categories.</i> Other expense categories

**APPENDIX C: METHOD TO CALCULATE EXPENDITURES**

DEPARTMENT	2012 BUDGET	REMARK / EXPENDITURE EQUATION
		are primarily for road maintenance in the unincorporated areas. After a general 10% adjustment for non-growth related expenditures, the remainder is allocated to land uses on the basis of lane miles in unincorporated areas.
Sheriff's Office	In 24 divisions: \$44,983,611	<p>There are 44 divisions or activities within the Sheriff's Department; the fiscal model includes expenditures associated with 24 divisions and excludes 17 divisions that provide services to the City of Centennial and 3 divisions that have no net expenditures.</p> <p>The divisions included in the model are listed below. Specific adjustments are noted below.</p> <p>Administration – <i>Sheriff salary and related benefits excluded</i></p> <p>Weapons Range</p> <p>Project Lifesaver</p> <p>Emergency Mgmt &amp; Planning</p> <p>Environmental Crime Non-Cent</p> <p>Community Resources – Non-Cent</p> <p>ASCO Training</p> <p>ASCO Human Resources</p> <p>Out of Prof Std</p> <p>School Res Non-Cent: <i>City of Littleton revenues are subtracted.</i></p> <p>Special Response Unit</p> <p>Crime Lab Non-Cent</p> <p>Environmental Crimes</p> <p>ASCO Communications</p> <p>ASCO Investigations – <i>Victim's Assistance Grant subtracted.</i></p> <p>Property &amp; Evidence</p> <p>ASCO Warrants</p> <p>ASCO Telecom</p> <p>Extra Duty Administration</p> <p>Patrol General Fund</p> <p>Detention: <i>Revenues from state and federal prisoner housing are subtracted.</i></p> <p>JCDF Medical Services (inmates?)</p> <p>Information Services</p> <p>Cvl Prcs / Fugit Trans</p> <p>After a general 10% adjustment for non-growth related expenditures, the remainder is allocated on the basis of countywide EDUs.</p>

**APPENDIX C: METHOD TO CALCULATE EXPENDITURES**

<b>DEPARTMENT</b>	<b>2012 BUDGET</b>	<b>REMARK / EXPENDITURE EQUATION</b>
Treasurer	\$1,989,507	After specific adjustments for department salary and benefits, intergovernmental revenues and tax collection fees which are provided to other governments and a general 10% adjustment for non-growth related expenses, the remainder is allocated on the basis of countywide EDUs. The Treasurer's Office generates more income than expenditures.
Tri-County Health	\$4,319,563	Consistent with an intergovernmental agreement, the model assumes a per capita contribution (expenditure) of \$6.29.
Arapahoe Law Enforcement Authority Fund	\$6,445,596	The Sheriff provides these services primarily in unincorporated areas of the County. After specific adjustments for intergovernmental revenues and contract charges to Towns and a general 10% adjustment for non-growth-related expenditures, the remainder is allocated in the basis of unincorporated EDUs.

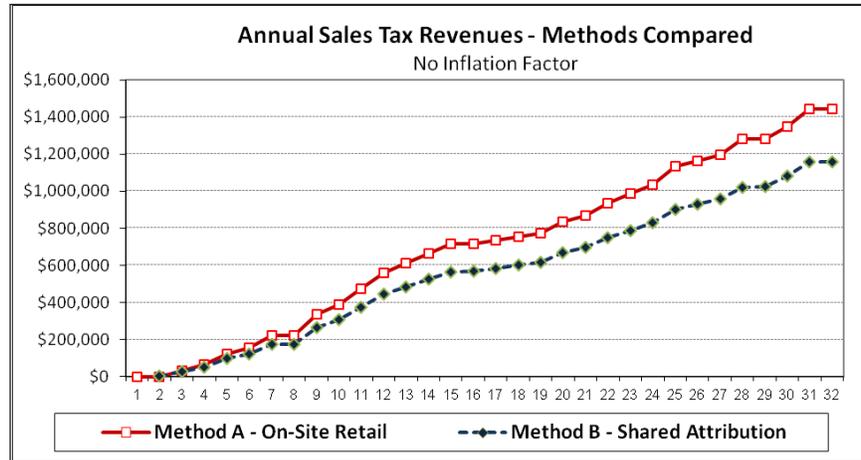
**APPENDIX D: UNDERLYING ASSUMPTIONS –  
HOUSEHOLD, POPULATION, & EMPLOYMENT FORECASTS**

FUND	EXPLANATION / SOURCES																		
RESIDENTIAL LAND USES																			
Households	<p>Housing unit construction by type was provided by the developer.</p> <p>12 housing types have been collapsed into three types: Low density, medium density, high density &amp; mixed use. These figures are presented in detail in Table 17 and in summary format in Table 2.</p> <p>A housing vacancy factor of 5.0% has been applied to housing units, based on 2010 US Census data. The model assumes one household per occupied housing unit.</p>																		
Population Per Household	<p>Population is calculated on the basis of occupied housing units using these average person-per-household factors.</p> <p>Low-Density: 2.60            Medium Density: 2.53            High Density and Mixed-Use: 2.00            Blended - Medium + High &amp; Mixed Use: 2.36</p> <p>Derived from American FactFinder, 2006-2010 American Community Survey, 5-Year Estimates, US Census Bureau</p>																		
NON-RESIDENTIAL LAND USES:																			
Constructed and Occupied Non-Residential Square Feet	<p>Nonresidential construction estimates have been provided by the developer. They are presented in detail in Fiscal Model Table 18 and in summary format in Table 2.</p> <p>For purposes of estimating employment and retail sales tax revenues, a 5% vacancy factor was applied to all uses but lodging and education, where no vacancy factor was applied.</p>																		
Employment Per Square Foot	<table border="0"> <thead> <tr> <th><u>Land Use</u></th> <th><u>Avg. Employment Per Square Foot</u></th> </tr> </thead> <tbody> <tr> <td>Office</td> <td>200</td> </tr> <tr> <td>Office – Flex</td> <td>250</td> </tr> <tr> <td>Retail</td> <td>500</td> </tr> <tr> <td>Service</td> <td>500</td> </tr> <tr> <td>Industrial</td> <td>500</td> </tr> <tr> <td>Lodging</td> <td>450</td> </tr> <tr> <td>Medical Campus</td> <td>300</td> </tr> <tr> <td>Education – K-12</td> <td>1,000</td> </tr> </tbody> </table> <p>All figures but education are based on industry standards from a variety of sources. Industrial assumes low-intensity warehouse, not manufacturing. Education – K to 12 is an estimate.</p>	<u>Land Use</u>	<u>Avg. Employment Per Square Foot</u>	Office	200	Office – Flex	250	Retail	500	Service	500	Industrial	500	Lodging	450	Medical Campus	300	Education – K-12	1,000
<u>Land Use</u>	<u>Avg. Employment Per Square Foot</u>																		
Office	200																		
Office – Flex	250																		
Retail	500																		
Service	500																		
Industrial	500																		
Lodging	450																		
Medical Campus	300																		
Education – K-12	1,000																		

## APPENDIX E

### SALES TAX ATTRIBUTION TO LAND USES

The fiscal impact model provides two alternative techniques to attribute sales tax revenues to Prosper uses. This is an art, not a science. Method A estimates sales tax revenues attributed to on-site retailers only. Method B is a more complex set of calculations where revenues are assigned to residents, businesses, on-site retailers is replicated in the revenues estimate (Table 10). The graph below shows the revenue differences between the methods.



**Method A. 100% Attribution to On-Site Retailers.** This method is a straightforward attribution of all retail sales generated by on-site retailers to Prosper and no attribution of sales generated by Prosper residents or Prosper office users. The calculations are presented in Table 10. This straightforward method generates more sales tax revenues than the method below.

**Method B. Shared Attribution.** This is a more conservative and more complex method where a portion of residential and office user sales are attributed to the site and a portion of retail sales generated by retailers are attributed to the site. This method includes an estimate of cannibalization by Prosper retailers from other retailers in trade area in Arapahoe County. It is the method that has been used in the sales tax revenue calculations in the fiscal model.

The cannibalization factor is not backed by definitive research and may be overstated, i.e., too high or too conservative. Since the future amount of other retail development in the trade area in Arapahoe County is unknown at this time, it is difficult to forecast an accurate percentage.

Step-by-step calculations for each method is summarized below and quantified in Table 10, using information from Tables 2 and 3.

***Part A: Taxable Sales Generated by Prosper Residents and Office Users.***

*Step #1. Household income of occupied units.* Household income is estimated as a percent of housing values, using some assumptions about mortgages. Occupied units are total built units less a 5% vacancy factor. (See Table 10 for detailed calculations)

*Step #2. Resident Purchases of Taxable Items.* This step estimates the percent of household income spent on various taxable items. It uses percentage assumptions derived from the Consumer Expenditure Survey, compiled by the US Bureau of Labor Statistics. The parameters are presented in Table 2.

*Step #3. Office Users' Purchases of Taxable Items.* This step estimates retail expenditures made by businesses occupying Prosper office space by applying estimates typically applied by the City of Aurora staff. (We are not aware of a method typically applied in Arapahoe County.) A 5% vacancy factor is applied to completed office space.

***PART 2: On-Site Retail Taxable Sales and Sales Tax Revenues.***

*Step #4. On-Site Retail Square Feet.* This step estimates retail square feet occupied on site by product type (convenience, shopper goods, eating and drinking, building materials and garden) and applies a vacancy factor of 5% to most retailers.

*Step #5. On-Site Retail Taxable Sales & Sales Tax Revenues.* This step applies average taxable sales per square foot figures to square feet of on-site retail to estimate taxable sales generated at Prosper and then applies the Arapahoe County open space sales tax rate. Taxable sales figures are presented in Table 3.

***PART 3: Attribution of all On-Site Retail Sales to Prosper –Method A.***

This is Step #5.

***PART 3 – Shared Attribution to Prosper – Method B.***

*Step #6. Percent Taxable Sales Attributable to Prosper Residents and Office Users.* This step estimates the percent capture of on-site residents and office users' taxable sales purchases attributable to Prosper. Capture rates are presented in Table 3.

*Step #7. Percent Taxable Sales Attributable to Prosper On-Site Retailers.* This step estimates taxable sales attributable to on-site retailers as follows: total taxable sales (Step #5) minus percent capture by on-site residents and office users (Step #6) equals an interim figure. Interim figure minus an estimated percent of cannibalization (25%) equals amount of on-site retailer sales attributable to Prosper. The cannibalization factor represents percent that Prosper retailers might cannibalize (take sales away from) from other Arapahoe County retailers, assuming that other retailers construct within the portion of the trade area that is in Arapahoe County.

*Step #8.* This step is the amount attributable to Prosper. It is Step #6 plus Step #7.

# PROSPER - Fiscal Impacts on Arapahoe County

Absorption Figures as of January 12, 2012

General, Road & Bridge, Social Services, Capital Expenditures, Developmental Disabilities & Open Space Fund

Analysis Based on 2012 Budgeted Figures

---

## TABLE of CONTENTS

---

Table #	Table Name
	<b><i>Real Estate and Development Assumptions</i></b>
1	Key Assumptions - This Model Run
2	Prosper: Absorption, Real Estate Values, Population, Employment, Assessed Values
3	Prosper: Development Assumptions
4	Prosper: Equivalent Dwelling Unit (EDU) Calculations
5	Prosper: Registered Motor Vehicles
6	County Equivalent Dwelling Unit (EDU) Calculations and Supporting Data
	<b><i>Summary Results:</i></b>
7	Revenue and Expenditure Summary
	<b><i>Revenues:</i></b>
8	Revenues
9	Revenue Metrics and Calculation Methods
10	Revenue Detail: Sales Tax Revenues Attributable to Open Space Fund
11	Revenue Detail: Lodging Revenue Detail
12	Revenue Detail: Use Tax Revenues on Building Materials Attributable to Open Space Fund
13	Revenue Detail: Building Permit, Plan Review Fees
14	Revenue Detail: Fees, Charges-for-Service, Fines
	<b><i>Expenditures</i></b>
15	Expenditures
16	Expenditure Metrics and Calculation Methods
	<b><i>Prosper: Absorption Assumptions by Planning Area and Product Type</i></b>
17	Residential Absorption Detail
18	Non-Residential Absorption Detail

## TABLE 1: SUMMARY OF KEY ASSUMPTIONS

This table provides only key working assumptions applied to this model run.

Detailed working assumptions in Tables 2 (Absorption), Table 3 (Development Assumptions), Table 9 (Revenue Metrics) and Table 13 (Expenditure Metrics)

Parameter	Year or Physical Units	Dollar Values	More Information
<b>Build-out Absorption Schedule</b>	30 years		Table 2
<b>Residential at Build-Out</b>	<i>Units</i>	<i>Average 2012 Market Value</i>	
Low Density	1,107	\$346,951	Tables 2 and 3
Medium Density	5,241	\$245,212	Tables 2 and 3
High Density and Mixed-Use	2,453	\$156,737	Tables 2 and 3
Total Residential	8,801		
<b>Non-Residential at Build-Out</b>	<i>Square Feet</i>	<i>Average 2012 Market Value PSF (Excluding Personal Property)</i>	
Office	1,526,175	\$100	Table 2 and 3
Office Flex	1,486,650	\$90	Table 2 and 3
Subtotal - Office	3,012,825		
Community Retail	550,000	\$150	Table 2 and 3
Regional Retail	1,855,000	\$150	Table 2 and 3
Subtotal - Retail	2,405,000		
Service	461,000	\$90	Table 2 and 3
Lodging	150,000	\$75	Table 2 and 3
Industrial & Warehouse / Storage	959,175	\$75	Table 2 and 3
Medical Campus	1,120,000	\$250	Table 2 and 3
Total Privately-Constructed Nonresidential	8,108,000		Table 3
School & Shared Services	527,000		Table 3
Grand Total - Nonresidential	8,635,000		Table 3
<b>Inflation Factors:</b>			
Real Estate Inflation Rate	0.0%		Table 3
Revenues Inflation Rate	0.0%		Table 9
Expenditures Inflation Rate	0.0%		Table 13
<b>Sales Tax Method:</b>	Direct On-Site Sales		
Average Taxable Sales Per SF	\$244		Table 10

TABLE 2 - PROSPER	ABSORPTION, REAL ESTATE VALUES, POPULATION, EMPLOYMENT, ASSESSED VALUES, PROPERTY TAX REVENUES												
Construction Year	1	2	3	4	5	6	7	8	9	10	11	12	13
<b>RESIDENTIAL DEVELOPMENT</b>													
<b>IMPROVED PROPERTY (From Table 17)</b>													
<b>Annual Units - Year Built</b>													
Low Density	10	25	38	43	49	29	30	41	40	30	40	20	27
Medium Density	50	75	105	130	120	147	177	219	264	252	245	144	171
High Density & Mixed Use	0	0	0	30	30	40	50	60	60	65	34	25	35
Total	60	100	143	203	199	216	257	320	364	347	319	189	233
<b>Acres Developed</b>													
Low Density	5.0	12.5	19.0	21.5	24.5	14.5	15.0	20.5	20.0	15.0	20.0	10.0	13.5
Medium Density	16.7	25.0	35.0	43.3	40.0	49.0	59.0	73.0	88.0	84.0	81.7	48.0	57.0
High Density	0.0	0.0	0.0	2.5	2.5	3.3	4.2	5.0	5.0	5.4	2.8	2.1	2.9
Total	21.7	37.5	54.0	67.3	67.0	66.8	78.2	98.5	113.0	104.4	104.5	60.1	73.4
<b>Annual Square Feet - Year Built</b>													
Low Density	35,000	87,500	133,000	150,500	171,500	101,500	105,000	143,500	140,000	105,000	140,000	70,000	94,500
Medium Density	90,000	135,000	189,000	234,000	216,000	264,600	318,600	394,200	475,200	453,600	441,000	259,200	307,800
High Density	0	0	0	27,000	27,000	36,000	45,000	54,000	54,000	58,500	30,600	22,500	31,500
Total	125,000	222,500	322,000	411,500	414,500	402,100	468,600	591,700	669,200	617,100	611,600	351,700	433,800
<b>Annual Units - Complete</b>													
Low Density		10	25	38	43	49	29	30	41	40	30	40	20
Medium Density		50	75	105	130	120	147	177	219	264	252	245	144
High Density		0	0	0	30	30	40	50	60	60	65	34	25
Total	0	60	100	143	203	199	216	257	320	364	347	319	189
<b>Annual Square Feet - Complete</b>													
Low Density		35,000	87,500	133,000	150,500	171,500	101,500	105,000	143,500	140,000	105,000	140,000	70,000
Medium Density		90,000	135,000	189,000	234,000	216,000	264,600	318,600	394,200	475,200	453,600	441,000	259,200
High Density		0	0	0	27,000	27,000	36,000	45,000	54,000	54,000	58,500	30,600	22,500
Total	0	125,000	222,500	322,000	411,500	414,500	402,100	468,600	591,700	669,200	617,100	611,600	351,700
<b>Annual Construction Values - Year Built</b>													
<i>Real Estate Inflation Factor</i>	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Low Density	\$3,885,000	\$9,712,500	\$14,763,000	\$16,705,500	\$19,036,500	\$11,266,500	\$11,655,000	\$15,928,500	\$15,540,000	\$11,655,000	\$15,540,000	\$7,770,000	\$10,489,500
Medium Density	\$9,450,000	\$14,175,000	\$19,845,000	\$24,570,000	\$22,680,000	\$27,783,000	\$33,453,000	\$41,391,000	\$49,896,000	\$47,628,000	\$46,305,000	\$27,216,000	\$32,319,000
High Density	\$0	\$0	\$0	\$2,673,000	\$2,673,000	\$3,564,000	\$4,455,000	\$5,346,000	\$5,346,000	\$5,791,500	\$3,029,400	\$2,227,500	\$3,118,500
Total	\$13,335,000	\$23,887,500	\$34,608,000	\$43,948,500	\$44,389,500	\$42,613,500	\$49,563,000	\$62,665,500	\$70,782,000	\$65,074,500	\$64,874,400	\$37,213,500	\$45,927,000
<b>Annual Market Value - Complete (Constant \$)</b>													
<i>This is one year after "year built" and excludes inflation.</i>													
<i>Excludes Inflation Factor</i>	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Low Density	\$0	\$3,469,512	\$8,673,780	\$13,184,146	\$14,918,902	\$17,000,610	\$10,061,585	\$10,408,537	\$14,225,000	\$13,878,049	\$10,408,537	\$13,878,049	\$6,939,024
Medium Density	\$0	\$12,260,590	\$18,390,884	\$25,747,238	\$31,877,533	\$29,425,415	\$36,046,133	\$43,402,487	\$53,701,382	\$64,735,913	\$61,793,371	\$60,076,889	\$35,310,498
High Density	\$0	\$0	\$0	\$0	\$4,702,099	\$4,702,099	\$6,269,466	\$7,836,832	\$9,404,199	\$9,404,199	\$10,187,882	\$5,329,046	\$3,918,416
Annual Market Values - w/o inflation	\$0	\$15,730,102	\$27,064,665	\$38,931,384	\$51,498,535	\$51,128,124	\$52,377,185	\$61,647,856	\$77,330,581	\$88,018,161	\$82,389,790	\$79,283,984	\$46,167,939
<b>Cumulative Market Values</b>													
Cumulative without Inflation	\$0	\$15,730,102	\$42,794,767	\$81,726,151	\$133,224,686	\$184,352,810	\$236,729,995	\$298,377,851	\$375,708,432	\$463,726,593	\$546,116,383	\$625,400,367	\$671,568,306
<i>Real Estate Inflation Factor</i>	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Cumulative Market Values with Inflation	\$0	\$15,730,102	\$42,794,767	\$81,726,151	\$133,224,686	\$184,352,810	\$236,729,995	\$298,377,851	\$375,708,432	\$463,726,593	\$546,116,383	\$625,400,367	\$671,568,306
<b>Annual "Actual" Values (Constant \$)</b>													
<i>Excludes Inflation Factor</i>	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Low Density	\$0	\$3,469,512	\$8,673,780	\$13,184,146	\$14,918,902	\$17,000,610	\$10,061,585	\$10,408,537	\$14,225,000	\$13,878,049	\$10,408,537	\$13,878,049	\$6,939,024
Medium Density	\$0	\$12,260,590	\$18,390,884	\$25,747,238	\$31,877,533	\$29,425,415	\$36,046,133	\$43,402,487	\$53,701,382	\$64,735,913	\$61,793,371	\$60,076,889	\$35,310,498
High Density	\$0	\$0	\$0	\$0	\$4,702,099	\$4,702,099	\$6,269,466	\$7,836,832	\$9,404,199	\$9,404,199	\$10,187,882	\$5,329,046	\$3,918,416
Annual Actual Values	\$0	\$15,730,102	\$27,064,665	\$38,931,384	\$51,498,535	\$51,128,124	\$52,377,185	\$61,647,856	\$77,330,581	\$88,018,161	\$82,389,790	\$79,283,984	\$46,167,939
<b>Cumulative Actual Values</b>													
Cumulative (Constant \$)	\$0	\$15,730,102	\$42,794,767	\$81,726,151	\$133,224,686	\$184,352,810	\$236,729,995	\$298,377,851	\$375,708,432	\$463,726,593	\$546,116,383	\$625,400,367	\$671,568,306
<i>Real Estate Inflation Factor</i>	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Cumulative with Inflation	\$0	\$15,730,102	\$42,794,767	\$81,726,151	\$133,224,686	\$184,352,810	\$236,729,995	\$298,377,851	\$375,708,432	\$463,726,593	\$546,116,383	\$625,400,367	\$671,568,306
<b>Cumulative Units - Complete</b>													
Single Family (Low Density)	0	10	35	73	116	165	194	224	265	305	335	375	395
Multi-Family (Medium & High Density)	0	50	125	230	390	540	727	954	1,233	1,557	1,874	2,153	2,322

TABLE 2 - PROSPER		ABSORPTION, REAL ESTATE VALUES, POPULATION, EMPLOYMENT, ASSESSED VALUES, PROPERTY TAX REVENUES											
Construction Year	1	2	3	4	5	6	7	8	9	10	11	12	13
Total	0	60	160	303	506	705	921	1,178	1,498	1,862	2,209	2,528	2,717
Occupied Units	0	57	152	288	481	670	875	1,119	1,423	1,769	2,099	2,402	2,581
Population		153	407	772	1288	1795	2344	2996	3808	4732	5612	6422	6902
<b>Cumulative Square Feet - Complete</b>													
Single Family (Low Density)	0	35,000	122,500	255,500	406,000	577,500	679,000	784,000	927,500	1,067,500	1,172,500	1,312,500	1,382,500
Multi-Family (Medium & High Density)	0	90,000	225,000	414,000	675,000	918,000	1,218,600	1,582,200	2,030,400	2,559,600	3,071,700	3,543,300	3,825,000
Total	0	125,000	347,500	669,500	1,081,000	1,495,500	1,897,600	2,366,200	2,957,900	3,627,100	4,244,200	4,855,800	5,207,500
<b>Cumulative Market Values w/ Inflation</b>	\$0	\$15,730,102	\$42,794,767	\$81,726,151	\$133,224,686	\$184,352,810	\$236,729,995	\$298,377,851	\$375,708,432	\$463,726,593	\$546,116,383	\$625,400,367	\$671,568,306
<b>Cumulative "Actual" Values w/ Inflation</b>	\$0	\$15,730,102	\$42,794,767	\$81,726,151	\$133,224,686	\$184,352,810	\$236,729,995	\$298,377,851	\$375,708,432	\$463,726,593	\$546,116,383	\$625,400,367	\$671,568,306
<b>Cumulative Assessed Value</b>	\$0	\$1,252,116	\$3,406,463	\$6,505,402	\$10,604,685	\$14,674,484	\$18,843,708	\$23,750,877	\$29,906,391	\$36,912,637	\$43,470,864	\$49,781,869	\$53,456,837
<b>RESIDENTIAL - VACANT LAND VALUES</b>	Assume Land value at 10% of subsequent year construction												
Annual Actual Value - Improved Year Complete	\$0	\$15,730,102	\$27,064,665	\$38,931,384	\$51,498,535	\$51,128,124	\$52,377,185	\$61,647,856	\$77,330,581	\$88,018,161	\$82,389,790	\$79,283,984	\$46,167,939
Annual Value - Land (1 Year Prior)	\$1,573,010	\$2,706,466	\$3,893,138	\$5,149,853	\$5,112,812	\$5,237,718	\$6,164,786	\$7,733,058	\$8,801,816	\$8,238,979	\$7,928,398	\$4,616,794	\$5,678,468
Annual Assessed Value - Land (at 29%)	\$456,173	\$784,875	\$1,129,010	\$1,493,458	\$1,482,716	\$1,518,938	\$1,787,788	\$2,242,587	\$2,552,527	\$2,389,304	\$2,299,236	\$1,338,870	\$1,646,756
<b>NONRESIDENTIAL DEVELOPMENT</b>	<b>IMPROVED PROPERTY (From Table 18)</b>												
<b>Annual Square Feet - Year Built</b>													
Office	0	16,000	37,600	31,000	36,800	12,500	35,250	29,500	64,250	41,500	41,500	29,000	50,750
Office - Flex	0	0	36,800	30,000	66,400	25,000	37,500	51,000	79,500	67,000	67,000	42,000	73,500
Retail - Community Scale	0	0	0	0	0	0	0	0	50,000	50,000	50,000	50,000	0
Retail - Regional Scale	0	50,000	50,000	85,000	50,000	100,000	0	175,000	50,000	100,000	100,000	50,000	75,000
Service	0	24,000	24,000	24,000	0	0	13,500	0	13,500	0	0	0	35,000
Industrial	0	0	21,600	15,000	36,800	12,500	18,750	29,500	47,750	41,500	41,500	29,000	50,750
Lodging	0	0	0	0	0	0	0	0	0	0	0	0	0
Medical Campus	0	0	0	0	0	50,000	70,000	100,000	100,000	0	100,000	0	100,000
Education - K-12	0	77,400	0	0	0	0	0	77,400	0	0	0	0	0
Total	0	167,400	170,000	185,000	190,000	200,000	175,000	462,400	405,000	300,000	400,000	200,000	385,000
Note: Lodging Rooms				0		0		0					
<b>Annual Acres Developed</b>													
Office	0.0	1.2	2.9	2.4	2.8	1.0	2.7	2.3	4.9	3.2	3.2	2.2	3.9
Office - Flex	0.0	0.0	2.3	1.9	4.2	1.6	2.4	3.3	5.1	4.3	4.3	2.7	4.7
Retail - Community Scale	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	3.7	3.7	3.7	0.0
Retail - Regional Scale	0.0	3.6	3.6	6.1	3.6	7.2	0.0	12.6	3.6	7.2	7.2	3.6	5.4
Service	0.0	1.6	1.6	1.6	0.0	0.0	0.9	0.0	0.9	0.0	0.0	0.0	2.4
Industrial	0.0	0.0	1.4	1.0	2.3	0.8	1.2	1.9	3.0	2.6	2.6	1.8	3.2
Lodging	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Medical Campus	0.0	0.0	0.0	0.0	0.0	2.9	4.0	5.7	5.7	0.0	5.7	0.0	5.7
Education - K-12	0.0	13.7	0.0	0.0	0.0	0.0	0.0	13.7	0.0	0.0	0.0	0.0	0.0
Total	0.0	20.1	11.8	13.0	13.0	13.4	11.2	39.4	27.0	21.0	26.7	14.0	25.3
<b>Annual Square Feet - Complete</b>													
Office	0	0	16,000	37,600	31,000	36,800	12,500	35,250	29,500	64,250	41,500	41,500	29,000
Office Flex	0	0	0	36,800	30,000	66,400	25,000	37,500	51,000	79,500	67,000	67,000	42,000
Retail - Community Scale	0	0	0	0	0	0	0	0	50,000	50,000	50,000	50,000	0
Retail - Regional Scale	0	0	50,000	50,000	85,000	50,000	100,000	0	175,000	50,000	100,000	100,000	50,000
Service	0	0	24,000	24,000	24,000	0	0	13,500	0	13,500	0	0	0
Industrial	0	0	0	21,600	15,000	36,800	12,500	18,750	29,500	47,750	41,500	41,500	29,000
Lodging	0	0	0	0	0	0	0	0	0	0	0	0	0
Medical Campus	0	0	0	0	0	0	50,000	70,000	100,000	100,000	0	100,000	0
Education - K-12	0	0	77,400	0	0	0	0	0	77,400	0	0	0	0
Total	0	0	167,400	170,000	185,000	190,000	200,000	175,000	462,400	405,000	300,000	400,000	200,000
<b>Annual Construction Values - Year Built</b>	0												
Real Estate Inflation Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Office	\$0	\$1,600,000	\$3,760,000	\$3,100,000	\$3,680,000	\$1,250,000	\$3,525,000	\$2,950,000	\$6,425,000	\$4,150,000	\$4,150,000	\$2,900,000	\$5,075,000
Office Flex	\$0	\$0	\$2,392,000	\$1,950,000	\$4,316,000	\$1,625,000	\$2,437,500	\$3,315,000	\$5,167,500	\$4,355,000	\$4,355,000	\$2,730,000	\$4,777,500
Retail - Community Scale	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,250,000	\$4,250,000	\$4,250,000	\$4,250,000	\$0
Retail - Regional Scale	\$0	\$4,250,000	\$4,250,000	\$7,225,000	\$4,250,000	\$8,500,000	\$0	\$14,875,000	\$4,250,000	\$8,500,000	\$8,500,000	\$4,250,000	\$6,375,000

TABLE 2 - PROSPER	ABSORPTION, REAL ESTATE VALUES, POPULATION, EMPLOYMENT, ASSESSED VALUES, PROPERTY TAX REVENUES												
Construction Year	1	2	3	4	5	6	7	8	9	10	11	12	13
Service	\$0	\$1,680,000	\$1,680,000	\$1,680,000	\$0	\$0	\$945,000	\$0	\$945,000	\$0	\$0	\$0	\$2,450,000
Industrial	\$0	\$0	\$1,296,000	\$900,000	\$2,208,000	\$750,000	\$1,125,000	\$1,770,000	\$2,865,000	\$2,490,000	\$2,490,000	\$1,740,000	\$3,045,000
Lodging	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Medical Campus	\$0	\$0	\$0	\$0	\$0	\$10,000,000	\$14,000,000	\$20,000,000	\$20,000,000	\$0	\$20,000,000	\$0	\$20,000,000
Education - K-12	\$0	\$9,984,600	\$0	\$0	\$0	\$0	\$0	\$9,984,600	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	\$0	\$17,514,600	\$13,378,000	\$14,855,000	\$14,454,000	\$22,125,000	\$22,032,500	\$52,894,600	\$43,902,500	\$23,745,000	\$43,745,000	\$15,870,000	\$41,722,500
<b>Annual Market Value - Year Complete</b>													
<i>Excludes Inflation</i>	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Office	\$0	\$0	\$1,600,000	\$3,760,000	\$3,100,000	\$3,680,000	\$1,250,000	\$3,525,000	\$2,950,000	\$6,425,000	\$4,150,000	\$4,150,000	\$2,900,000
Office Flex	\$0	\$0	\$0	\$3,312,000	\$2,700,000	\$5,976,000	\$2,250,000	\$3,375,000	\$4,590,000	\$7,155,000	\$6,030,000	\$6,030,000	\$3,780,000
Retail - Community Scale	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7,500,000	\$7,500,000	\$7,500,000	\$7,500,000
Retail - Regional Scale	\$0	\$0	\$7,500,000	\$7,500,000	\$12,750,000	\$7,500,000	\$15,000,000	\$0	\$26,250,000	\$7,500,000	\$15,000,000	\$15,000,000	\$7,500,000
Service	\$0	\$0	\$2,160,000	\$2,160,000	\$2,160,000	\$0	\$0	\$1,215,000	\$0	\$1,215,000	\$0	\$0	\$0
Industrial	\$0	\$0	\$0	\$1,620,000	\$1,125,000	\$2,760,000	\$937,500	\$1,406,250	\$2,212,500	\$3,581,250	\$3,112,500	\$3,112,500	\$2,175,000
Lodging	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Medical Campus	\$0	\$0	\$0	\$0	\$0	\$0	\$12,500,000	\$17,500,000	\$25,000,000	\$25,000,000	\$0	\$25,000,000	\$0
Education - K-12 (Tax Exempt)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	\$0	\$0	\$11,260,000	\$18,352,000	\$21,835,000	\$19,916,000	\$31,937,500	\$27,021,250	\$61,002,500	\$58,376,250	\$35,792,500	\$60,792,500	\$23,855,000
<b>Cumulative Market Values</b>													
Cumulative without Inflation	\$0	\$0	\$11,260,000	\$29,612,000	\$51,447,000	\$71,363,000	\$103,300,500	\$130,321,750	\$191,324,250	\$249,700,500	\$285,493,000	\$346,285,500	\$370,140,500
Real Estate Inflation Rate	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Cumulative Market Values with Inflation	\$0	\$0	\$11,260,000	\$29,612,000	\$51,447,000	\$71,363,000	\$103,300,500	\$130,321,750	\$191,324,250	\$249,700,500	\$285,493,000	\$346,285,500	\$370,140,500
<b>Annual "Actual" Value - Year Complete</b>													
<b>For Assessed Valuation Purposes; Includes Personal Property</b>													
<i>Annual Inflation Factor</i>	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Office	\$0	\$0	\$1,760,000	\$4,136,000	\$3,410,000	\$4,048,000	\$1,375,000	\$3,877,500	\$3,245,000	\$7,067,500	\$4,565,000	\$4,565,000	\$3,190,000
Office Flex	\$0	\$0	\$0	\$3,477,600	\$2,835,000	\$6,274,800	\$2,362,500	\$3,543,750	\$4,819,500	\$7,512,750	\$6,331,500	\$6,331,500	\$3,969,000
Retail - Community Scale	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$8,250,000	\$8,250,000	\$8,250,000	\$8,250,000
Retail - Regional Scale	\$0	\$0	\$8,250,000	\$8,250,000	\$14,025,000	\$8,250,000	\$16,500,000	\$0	\$28,875,000	\$8,250,000	\$16,500,000	\$16,500,000	\$8,250,000
Service	\$0	\$0	\$2,268,000	\$2,268,000	\$2,268,000	\$0	\$0	\$1,275,750	\$0	\$1,275,750	\$0	\$0	\$0
Industrial	\$0	\$0	\$0	\$1,701,000	\$1,181,250	\$2,898,000	\$984,375	\$1,476,563	\$2,323,125	\$3,760,313	\$3,268,125	\$3,268,125	\$2,283,750
Lodging	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Medical Campus	\$0	\$0	\$0	\$0	\$0	\$0	\$15,000,000	\$21,000,000	\$30,000,000	\$30,000,000	\$0	\$30,000,000	\$0
Education - K-12 (Tax Exempt)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Annual Actual Values - No Inflation</b>	\$0	\$0	\$12,278,000	\$19,832,600	\$23,719,250	\$21,470,800	\$36,221,875	\$31,173,563	\$69,262,625	\$66,116,313	\$38,914,625	\$68,914,625	\$25,942,750
<b>Cumulative Actual Values</b>													
Cumulative (Constant \$)	\$0	\$0	\$12,278,000	\$32,110,600	\$55,829,850	\$77,300,650	\$113,522,525	\$144,696,088	\$213,958,713	\$280,075,025	\$318,989,650	\$387,904,275	\$413,847,025
Real Estate Inflation Factor	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Cumulative with Inflation	\$0	\$0	\$12,278,000	\$32,110,600	\$55,829,850	\$77,300,650	\$113,522,525	\$144,696,088	\$213,958,713	\$280,075,025	\$318,989,650	\$387,904,275	\$413,847,025
<b>Cumulative Square Feet - Complete</b>													
Office	0	0	16,000	53,600	84,600	121,400	133,900	169,150	198,650	262,900	304,400	345,900	3/4,900
Office - Flex	0	0	0	36,800	66,800	133,200	158,200	195,700	246,700	326,200	393,200	460,200	502,200
Retail - Community Scale	0	0	0	0	0	0	0	0	0	50,000	100,000	150,000	200,000
Retail - Regional Scale	0	0	50,000	100,000	185,000	235,000	335,000	335,000	510,000	560,000	660,000	760,000	810,000
Service	0	0	24,000	48,000	72,000	72,000	72,000	85,500	85,500	99,000	99,000	99,000	99,000
Industrial	0	0	0	21,600	36,600	73,400	85,900	104,650	134,150	181,900	223,400	264,900	293,900
Lodging	0	0	0	0	0	0	0	0	0	0	0	0	0
Medical & Educational (Taxable)	0	0	0	0	0	0	50,000	120,000	220,000	320,000	320,000	420,000	420,000
Education - K-12 and Community College	0	0	77,400	77,400	77,400	77,400	77,400	77,400	154,800	154,800	154,800	154,800	154,800
<b>Total</b>	0	0	167,400	337,400	522,400	712,400	912,400	1,087,400	1,549,800	1,954,800	2,254,800	2,654,800	2,854,800
Note: Lodging Rooms Occupied			0	0	0	0	0	0	0	0	0	0	0
<b>Cumulative Square Feet - Occupied</b>													
Office	-	-	15,200	50,920	80,370	115,330	127,205	160,693	188,718	249,755	289,180	328,605	356,155
Office - Flex	-	-	-	34,960	63,460	126,540	150,290	185,915	234,365	309,890	373,540	437,190	477,090
Retail - Community Scale	-	-	-	-	-	-	-	-	-	47,500	95,000	142,500	190,000
Retail - Regional Scale	-	-	-	47,500	95,000	175,750	223,250	318,250	318,250	484,500	532,000	627,000	769,500
Service	-	-	-	22,800	45,600	68,400	68,400	68,400	81,225	81,225	94,050	94,050	94,050
Industrial	-	-	-	20,520	34,770	69,730	81,605	99,418	127,443	172,805	212,230	251,655	279,205
Lodging	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 2 - PROSPER	ABSORPTION, REAL ESTATE VALUES, POPULATION, EMPLOYMENT, ASSESSED VALUES, PROPERTY TAX REVENUES												
Construction Year	1	2	3	4	5	6	7	8	9	10	11	12	13
Medical & Educational (Taxable)	-	-	-	-	-	-	47,500	114,000	209,000	304,000	304,000	399,000	399,000
Education - K-12 and Community College	-	-	77,400	77,400	77,400	77,400	77,400	77,400	154,800	154,800	154,800	154,800	154,800
Total	-	-	162,900	324,400	500,150	680,650	870,650	1,036,901	1,480,051	1,864,800	2,149,800	2,529,800	2,719,800
<b>Cumulative Employees of Occupied Space</b>													
Office	0	-	76	255	402	577	636	803	944	1,249	1,446	1,643	1,781
Office - Flex	0	-	-	140	254	506	601	744	937	1,240	1,494	1,749	1,908
Retail - Community Scale	0	-	-	-	-	-	-	-	-	95	190	285	380
Retail - Regional Scale	0	-	95	190	352	447	637	637	969	1,064	1,254	1,444	1,539
Service	0	-	46	91	137	137	137	162	162	188	188	188	188
Industrial	0	-	-	41	70	139	163	199	255	346	424	503	558
Lodging	0	-	-	-	-	-	-	-	-	-	-	-	-
Medical Campus	0	-	-	-	-	-	158	380	697	1,013	1,013	1,330	1,330
Education - K-12 (Tax Exempt)	0	-	77	77	77	77	77	77	155	155	155	155	155
Total	0	-	294	794	1,292	1,883	2,409	3,002	4,119	5,350	6,164	7,297	7,839
<b>NONRESIDENTIAL - IMPROVED</b>													
Cumulative Market Value - Inflated	\$0	\$0	\$11,260,000	\$29,612,000	\$51,447,000	\$71,363,000	\$103,300,500	\$130,321,750	\$191,324,250	\$249,700,500	\$285,493,000	\$346,285,500	\$370,140,500
Cumulative "Actual" Value w PP - Inflated	\$0	\$0	\$12,278,000	\$32,110,600	\$55,829,850	\$77,300,650	\$113,522,525	\$144,696,088	\$213,958,713	\$280,075,025	\$318,989,650	\$387,904,275	\$413,847,025
Cumulative Assessed Value - Inflated	\$0	\$0	\$3,560,620	\$9,312,074	\$16,190,657	\$22,417,189	\$32,921,532	\$41,961,865	\$62,048,027	\$81,221,757	\$92,506,999	\$112,492,240	\$120,015,637
<b>NONRESIDENTIAL - VACANT LAND VALUES</b>													
Annual Actual Value - Improved - Year Complete	\$0	\$0	\$12,278,000	\$19,832,600	\$23,719,250	\$21,470,800	\$36,221,875	\$31,173,563	\$69,262,625	\$66,116,313	\$38,914,625	\$68,914,625	\$25,942,750
Annual Value - Land (1 Year Prior)	\$0	\$1,227,800	\$1,983,260	\$2,371,925	\$7,147,080	\$3,622,188	\$3,117,356	\$6,926,263	\$6,611,631	\$3,891,463	\$6,891,463	\$2,594,275	\$6,220,731
Annual Assessed Value - Land	\$0	\$356,062	\$575,145	\$687,858	\$622,653	\$1,050,434	\$904,033	\$2,008,616	\$1,917,373	\$1,128,524	\$1,998,524	\$752,340	\$1,804,012
<b>GRAND TOTALS (Residential + Nonresidential)</b>													
<b>IMPROVED PROPERTY</b>													
Annual Construction Values	\$13,335,000	\$41,402,100	\$47,986,000	\$58,803,500	\$58,843,500	\$64,738,500	\$71,595,500	\$115,560,100	\$114,684,500	\$88,819,500	\$108,619,400	\$53,083,500	\$87,649,500
Cumulative Sq.Ft. Completed	0	125,000	514,900	1,006,900	1,603,400	2,207,900	2,810,000	3,453,600	4,507,700	5,581,900	6,499,000	7,510,600	8,062,300
Cumulative Market Value	\$0	\$15,730,102	\$54,054,767	\$111,338,151	\$184,671,686	\$255,715,810	\$340,030,495	\$428,699,601	\$567,032,682	\$713,427,093	\$831,609,383	\$971,685,867	\$1,041,708,806
Cumulative "Actual" Value	\$0	\$15,730,102	\$55,072,767	\$113,836,751	\$189,054,536	\$261,653,460	\$350,252,520	\$443,073,939	\$589,667,145	\$743,801,618	\$865,106,033	\$1,013,304,642	\$1,085,415,331
Cumulative Assessed Value - Improvements	\$0	\$1,252,116	\$6,967,083	\$15,817,476	\$26,795,341	\$37,091,672	\$51,765,240	\$65,712,742	\$91,954,418	\$118,134,394	\$135,977,863	\$162,274,109	\$173,472,474
<b>ANNUAL LAND VALUES</b>													
Residential Land - Assessed Value	\$456,173	\$784,875	\$1,129,010	\$1,493,458	\$1,482,716	\$1,518,938	\$1,787,788	\$2,242,587	\$2,552,527	\$2,389,304	\$2,299,236	\$1,338,870	\$1,646,756
Nonresidential Land - Assessed Value	\$0	\$356,062	\$575,145	\$687,858	\$622,653	\$1,050,434	\$904,033	\$2,008,616	\$1,917,373	\$1,128,524	\$1,998,524	\$752,340	\$1,804,012
Cumulative Assessed Value - Land	\$456,173	\$1,140,937	\$1,704,156	\$2,181,316	\$2,105,369	\$2,569,373	\$2,691,821	\$4,251,203	\$4,469,900	\$3,517,828	\$4,297,760	\$2,091,210	\$3,450,768
<b>GRAND TOTAL CUM. ASSESSED VALUE</b>	\$456,173	\$2,393,053	\$8,671,239	\$17,998,791	\$28,900,710	\$39,661,045	\$54,457,061	\$69,963,945	\$96,424,318	\$121,652,222	\$140,275,622	\$164,365,319	\$176,923,242
<b>CUMULATIVE ACTUAL VALUES</b>													
Vacant Land	\$1,573,010	\$3,934,266	\$5,876,398	\$7,521,778	\$7,259,892	\$8,859,906	\$9,282,142	\$14,659,321	\$15,413,447	\$12,130,442	\$14,819,861	\$7,211,069	\$11,899,199
Residential Improved	\$0	\$15,730,102	\$42,794,767	\$81,726,151	\$133,224,686	\$184,352,810	\$236,729,995	\$298,377,851	\$375,708,432	\$463,726,593	\$546,116,383	\$625,400,367	\$671,568,306
Non-Residential Improved	\$0	\$0	\$12,278,000	\$32,110,600	\$55,829,850	\$77,300,650	\$113,522,525	\$144,696,088	\$213,958,713	\$280,075,025	\$318,989,650	\$387,904,275	\$413,847,025
TOTAL	\$1,573,010	\$19,664,368	\$60,949,165	\$121,358,530	\$196,314,428	\$270,513,366	\$359,534,662	\$457,733,259	\$605,080,592	\$755,932,060	\$879,925,894	\$1,020,515,711	\$1,097,314,530
<b>LANE MILES</b>													
Annual Lane Miles Built	25.836	17.332	13.094	0.000	20.990	10.510	6.874	1.960	26.848	15.272	0.000	14.546	2.290
Cumulative Lane Miles - Built	25.836	43.168	56.262	56.262	77.252	87.762	94.636	96.596	123.444	138.716	138.716	153.262	155.552
Cumulative Lane Miles Complete	0.000	25.836	43.168	56.262	56.262	77.252	87.762	94.636	96.596	123.444	138.716	138.716	153.262
<b>CUMULATIVE RETAIL DETAIL</b>													
	<i>Measured in Square Feet</i>												
Retail - Community Scale	0	0	0	0	0	0	0	0	0	50,000	100,000	150,000	200,000
Retail - Regional Scale	0	0	50,000	100,000	185,000	235,000	335,000	335,000	510,000	560,000	660,000	760,000	810,000
Total Retail Completed	0	0	50,000	100,000	185,000	235,000	335,000	335,000	510,000	610,000	760,000	910,000	1,010,000
Year Constructed	1	2	3	4	5	6	7	8	9	10	11	12	13
Year Assessed	2	3	4	5	6	7	8	9	10	11	12	13	14
Year Tax Revenues Collected	3	4	5	6	7	8	9	10	11	12	13	14	15

Construction Year	14	15	16	17	18	19	20	21	22	23	24	25
<b>RESIDENTIAL DEVELOPMENT</b>												
<b>Annual Units - Year Built</b>												
Low Density	30	36	46	20	4	9	15	17	15	16	15	35
Medium Density	155	203	180	245	205	301	249	248	162	163	115	145
High Density & Mixed Use	40	30	30	85	31	85	40	110	70	70	80	95
Total	225	269	256	350	240	395	304	375	247	249	210	275
<b>Acres Developed</b>												
Low Density	15.0	18.0	23.0	10.0	2.0	4.5	7.5	8.5	7.5	8.0	7.5	17.5
Medium Density	51.7	67.7	60.0	81.7	68.3	100.3	83.0	82.7	54.0	54.3	38.3	48.3
High Density	3.3	2.5	2.5	7.1	2.6	7.1	3.3	9.2	5.8	5.8	6.7	7.9
Total	70.0	88.2	85.5	98.8	72.9	111.9	93.8	100.3	67.3	68.2	52.5	73.8
<b>Annual Square Feet - Year Built</b>												
Low Density	105,000	126,000	161,000	70,000	14,000	31,500	52,500	59,500	52,500	56,000	52,500	122,500
Medium Density	279,000	365,400	324,000	441,000	369,000	541,800	448,200	446,400	291,600	293,400	207,000	261,000
High Density	36,000	27,000	27,000	76,500	27,900	76,500	36,000	99,000	63,000	63,000	72,000	85,500
Total	420,000	518,400	512,000	587,500	410,900	649,800	536,700	604,900	407,100	412,400	331,500	469,000
<b>Annual Units - Complete</b>												
Low Density	27	30	36	46	20	4	9	15	17	15	16	15
Medium Density	171	155	203	180	245	205	301	249	248	162	163	115
High Density	35	40	30	30	85	31	85	40	110	70	70	80
Total	233	225	269	256	350	240	395	304	375	247	249	210
<b>Annual Square Feet - Complete</b>												
Low Density	94,500	105,000	126,000	161,000	70,000	14,000	31,500	52,500	59,500	52,500	56,000	52,500
Medium Density	307,800	279,000	365,400	324,000	441,000	369,000	541,800	448,200	446,400	291,600	293,400	207,000
High Density	31,500	36,000	27,000	76,500	27,900	76,500	36,000	99,000	63,000	63,000	72,000	85,500
Total	433,800	420,000	518,400	512,000	587,500	410,900	649,800	536,700	604,900	407,100	412,400	331,500
<b>Annual Construction Values - Year Built</b>												
Real Estate Inflation Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Low Density	\$11,655,000	\$13,986,000	\$17,871,000	\$7,770,000	\$1,554,000	\$3,496,500	\$5,827,500	\$6,604,500	\$5,827,500	\$6,216,000	\$5,827,500	\$13,597,500
Medium Density	\$29,295,000	\$38,367,000	\$34,020,000	\$46,305,000	\$38,745,000	\$56,889,000	\$47,061,000	\$46,872,000	\$30,618,000	\$30,807,000	\$21,735,000	\$27,405,000
High Density	\$3,564,000	\$2,673,000	\$2,673,000	\$7,573,500	\$2,762,100	\$7,573,500	\$3,564,000	\$9,801,000	\$6,237,000	\$6,237,000	\$7,128,000	\$8,464,500
Total	\$44,514,000	\$55,026,000	\$54,564,000	\$61,648,500	\$43,061,100	\$67,959,000	\$56,452,500	\$63,277,500	\$42,682,500	\$43,260,000	\$34,690,500	\$49,467,000
<b>Annual Market Value - Complete (Constant \$)</b>												
Excludes Inflation Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Low Density	\$9,367,683	\$10,408,537	\$12,490,244	\$15,959,756	\$6,939,024	\$1,387,805	\$3,122,561	\$5,204,268	\$5,898,171	\$5,204,268	\$5,551,220	\$5,204,268
Medium Density	\$41,931,216	\$38,007,828	\$49,777,994	\$44,138,122	\$60,076,889	\$50,268,417	\$73,808,749	\$61,057,736	\$60,812,524	\$39,724,310	\$39,969,522	\$28,199,356
High Density	\$5,485,783	\$6,269,466	\$4,702,099	\$4,702,099	\$13,322,615	\$4,858,836	\$13,322,615	\$6,269,466	\$17,241,031	\$10,971,565	\$10,971,565	\$12,538,932
Annual Market Values - w/o inflation	\$56,784,682	\$54,685,830	\$66,970,337	\$64,799,978	\$80,338,529	\$56,515,058	\$90,253,925	\$72,531,470	\$83,951,726	\$55,900,144	\$56,492,307	\$45,942,556
<b>Cumulative Market Values</b>												
Cumulative without Inflation	\$728,352,988	\$783,038,818	\$850,009,155	\$914,809,133	\$995,147,662	\$1,051,662,720	\$1,141,916,645	\$1,214,448,116	\$1,298,399,842	\$1,354,299,986	\$1,410,792,293	\$1,456,734,849
Real Estate Inflation Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Cumulative Market Values with Inflation	\$728,352,988	\$783,038,818	\$850,009,155	\$914,809,133	\$995,147,662	\$1,051,662,720	\$1,141,916,645	\$1,214,448,116	\$1,298,399,842	\$1,354,299,986	\$1,410,792,293	\$1,456,734,849
<b>Annual "Actual" Values (Constant \$)</b>												
Excludes Inflation Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Low Density	\$9,367,683	\$10,408,537	\$12,490,244	\$15,959,756	\$6,939,024	\$1,387,805	\$3,122,561	\$5,204,268	\$5,898,171	\$5,204,268	\$5,551,220	\$5,204,268
Medium Density	\$41,931,216	\$38,007,828	\$49,777,994	\$44,138,122	\$60,076,889	\$50,268,417	\$73,808,749	\$61,057,736	\$60,812,524	\$39,724,310	\$39,969,522	\$28,199,356
High Density	\$5,485,783	\$6,269,466	\$4,702,099	\$4,702,099	\$13,322,615	\$4,858,836	\$13,322,615	\$6,269,466	\$17,241,031	\$10,971,565	\$10,971,565	\$12,538,932
Annual Actual Values	\$56,784,682	\$54,685,830	\$66,970,337	\$64,799,978	\$80,338,529	\$56,515,058	\$90,253,925	\$72,531,470	\$83,951,726	\$55,900,144	\$56,492,307	\$45,942,556
<b>Cumulative Actual Values</b>												
Cumulative (Constant \$)	\$728,352,988	\$783,038,818	\$850,009,155	\$914,809,133	\$995,147,662	\$1,051,662,720	\$1,141,916,645	\$1,214,448,116	\$1,298,399,842	\$1,354,299,986	\$1,410,792,293	\$1,456,734,849
Real Estate Inflation Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Cumulative with Inflation	\$728,352,988	\$783,038,818	\$850,009,155	\$914,809,133	\$995,147,662	\$1,051,662,720	\$1,141,916,645	\$1,214,448,116	\$1,298,399,842	\$1,354,299,986	\$1,410,792,293	\$1,456,734,849
<b>Cumulative Units - Complete</b>												
Single Family (Low Density)	422	452	488	534	554	558	567	582	599	614	630	645
Multi-Family (Medium & High Density)	2,528	2,723	2,956	3,166	3,496	3,732	4,118	4,407	4,765	4,997	5,230	5,425

TABLE 2 - PROSPER												
Construction Year	14	15	16	17	18	19	20	21	22	23	24	25
Total	2,950	3,175	3,444	3,700	4,050	4,290	4,685	4,989	5,364	5,611	5,860	6,070
Occupied Units	2,803	3,016	3,272	3,515	3,848	4,076	4,451	4,740	5,096	5,330	5,567	5,767
Population	7493	8064	8747	9398	10285	10893	11893	12663	13613	14239	14870	15402
<b>Cumulative Square Feet - Complete</b>												
Single Family (Low Density)	1,477,000	1,582,000	1,708,000	1,869,000	1,939,000	1,953,000	1,984,500	2,037,000	2,096,500	2,149,000	2,205,000	2,257,500
Multi-Family (Medium & High Density)	4,164,300	4,479,300	4,871,700	5,222,700	5,740,200	6,137,100	6,755,400	7,239,600	7,785,000	8,139,600	8,496,000	8,775,000
Total	5,641,300	6,061,300	6,579,700	7,091,700	7,679,200	8,090,100	8,739,900	9,276,600	9,881,500	10,288,600	10,701,000	11,032,500
<b>Cumulative Market Values w/ Inflation</b>	\$728,352,988	\$783,038,818	\$850,009,155	\$914,809,133	\$995,147,662	\$1,051,662,720	\$1,141,916,645	\$1,214,448,116	\$1,298,399,842	\$1,354,299,986	\$1,410,792,293	\$1,456,734,849
<b>Cumulative "Actual" Values w/ Inflation</b>	\$728,352,988	\$783,038,818	\$850,009,155	\$914,809,133	\$995,147,662	\$1,051,662,720	\$1,141,916,645	\$1,214,448,116	\$1,298,399,842	\$1,354,299,986	\$1,410,792,293	\$1,456,734,849
<b>Cumulative Assessed Value</b>	\$57,976,898	\$62,329,890	\$67,660,729	\$72,818,807	\$79,213,754	\$83,712,353	\$90,896,565	\$96,670,070	\$103,352,627	\$107,802,279	\$112,299,067	\$115,956,094
<b>RESIDENTIAL - VACANT LAND VALUES</b>												
Annual Actual Value - Improved Year Complete	\$56,784,682	\$54,685,830	\$66,970,337	\$64,799,978	\$80,338,529	\$56,515,058	\$90,253,925	\$72,531,470	\$83,951,726	\$55,900,144	\$56,492,307	\$45,942,556
Annual Value - Land (1 Year Prior)	\$5,468,583	\$6,697,034	\$6,479,998	\$8,033,853	\$5,651,506	\$9,025,393	\$7,253,147	\$8,395,173	\$5,590,014	\$5,649,231	\$4,594,256	\$6,258,898
Annual Assessed Value - Land (at 29%)	\$1,585,889	\$1,942,140	\$1,879,199	\$2,329,817	\$1,638,937	\$2,617,364	\$2,103,413	\$2,434,600	\$1,621,104	\$1,638,277	\$1,332,334	\$1,815,081
<b>NONRESIDENTIAL DEVELOPMENT</b>												
<b>Annual Square Feet - Year Built</b>												
Office	14,500	41,500	27,000	41,500	79,250	45,500	57,000	0	57,000	42,250	54,000	144,000
Office - Flex	21,000	42,000	21,000	42,000	31,500	42,000	86,000	0	86,000	65,500	42,500	97,000
Retail - Community Scale	50,000	0	50,000	50,000	0	75,000	0	0	50,000	0	75,000	0
Retail - Regional Scale	50,000	0	0	0	25,000	50,000	50,000	100,000	50,000	75,000	100,000	50,000
Service	0	42,500	12,500	12,500	12,500	16,500	0	0	0	0	0	0
Industrial	14,500	29,000	14,500	29,000	21,750	29,000	57,000	0	57,000	42,250	29,000	64,000
Lodging	0	0	0	0	0	0	150,000	0	0	0	0	0
Medical Campus	0	100,000	0	0	0	100,000	0	125,000	0	125,000	0	150,000
Education - K-12	0	0	77,400	140,000	0	0	0	0	0	77,400	0	0
Total	150,000	255,000	202,400	315,000	170,000	358,000	400,000	225,000	300,000	427,400	300,000	505,000
Note: Lodging Rooms												
<b>Annual Acres Developed</b>												
Office	1.1	3.2	2.1	3.2	6.1	3.5	4.4	0.0	4.4	3.2	4.1	11.0
Office - Flex	1.3	2.7	1.3	2.7	2.0	2.7	5.5	0.0	5.5	4.2	2.7	6.2
Retail - Community Scale	3.7	0.0	3.7	3.7	0.0	5.6	0.0	0.0	3.7	0.0	5.6	0.0
Retail - Regional Scale	3.6	0.0	0.0	0.0	1.8	3.6	3.6	7.2	3.6	5.4	7.2	3.6
Service	0.0	2.9	0.8	0.8	0.8	1.1	0.0	0.0	0.0	0.0	0.0	0.0
Industrial	0.9	1.8	0.9	1.8	1.4	1.8	3.6	0.0	3.6	2.7	1.8	4.1
Lodging	0.0	0.0	0.0	0.0	0.0	0.0	10.1	0.0	0.0	0.0	0.0	0.0
Medical Campus	0.0	5.7	0.0	0.0	0.0	5.7	0.0	7.2	0.0	7.2	0.0	8.6
Education - K-12	0.0	0.0	13.7	24.7	0.0	0.0	0.0	0.0	0.0	13.7	0.0	0.0
Total	10.7	16.3	22.5	37.0	12.1	24.0	27.2	14.3	20.8	36.3	21.4	33.5
<b>Annual Square Feet - Complete</b>												
Office	50,750	14,500	41,500	27,000	41,500	79,250	45,500	57,000	0	57,000	42,250	54,000
Office Flex	73,500	21,000	42,000	21,000	42,000	31,500	42,000	86,000	0	86,000	65,500	42,000
Retail - Community Scale	0	50,000	0	50,000	50,000	0	75,000	0	0	50,000	0	75,000
Retail - Regional Scale	75,000	50,000	0	0	0	25,000	50,000	50,000	100,000	50,000	75,000	100,000
Service	35,000	0	42,500	12,500	12,500	16,500	0	0	0	0	0	0
Industrial	50,750	14,500	29,000	14,500	29,000	21,750	29,000	57,000	0	57,000	42,250	29,000
Lodging	0	0	0	0	0	0	150,000	0	0	0	0	0
Medical Campus	100,000	0	100,000	0	0	0	100,000	0	125,000	0	125,000	0
Education - K-12	0	0	0	77,400	140,000	0	0	0	0	0	77,400	0
Total	385,000	150,000	255,000	202,400	315,000	170,000	358,000	400,000	225,000	300,000	427,400	300,000
<b>Annual Construction Values - Year Built</b>												
Real Estate Inflation Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Office	\$1,450,000	\$4,150,000	\$2,700,000	\$4,150,000	\$7,925,000	\$4,550,000	\$5,700,000	\$0	\$5,700,000	\$4,225,000	\$5,400,000	\$14,400,000
Office Flex	\$1,365,000	\$2,730,000	\$1,365,000	\$2,730,000	\$2,047,500	\$2,730,000	\$5,590,000	\$0	\$5,590,000	\$4,257,500	\$2,730,000	\$6,305,000
Retail - Community Scale	\$4,250,000	\$0	\$4,250,000	\$4,250,000	\$0	\$6,375,000	\$0	\$0	\$4,250,000	\$0	\$6,375,000	\$0
Retail - Regional Scale	\$4,250,000	\$0	\$0	\$0	\$2,125,000	\$4,250,000	\$4,250,000	\$8,500,000	\$4,250,000	\$6,375,000	\$8,500,000	\$4,250,000

**TABLE 2 - PROSPER**

Construction Year	14	15	16	17	18	19	20	21	22	23	24	25
<b>Service</b>	\$0	\$2,975,000	\$875,000	\$875,000	\$875,000	\$1,155,000	\$0	\$0	\$0	\$0	\$0	\$0
<b>Industrial</b>	\$870,000	\$1,740,000	\$870,000	\$1,740,000	\$1,305,000	\$1,740,000	\$3,420,000	\$0	\$3,420,000	\$2,535,000	\$1,740,000	\$3,840,000
<b>Lodging</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$18,750,000	\$0	\$0	\$0	\$0	\$0
<b>Medical Campus</b>	\$0	\$20,000,000	\$0	\$0	\$0	\$20,000,000	\$0	\$25,000,000	\$0	\$25,000,000	\$0	\$30,000,000
<b>Education - K-12</b>	\$0	\$0	\$9,984,600	\$18,060,000	\$0	\$0	\$0	\$0	\$0	\$9,984,600	\$0	\$0
<b>Total</b>	\$12,185,000	\$31,595,000	\$20,044,600	\$31,805,000	\$14,277,500	\$40,800,000	\$37,710,000	\$33,500,000	\$23,210,000	\$52,377,100	\$24,745,000	\$58,795,000
<b>Annual Market Value - Year Complete</b>												
<i>Excludes Inflation</i>	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
<b>Office</b>	\$5,075,000	\$1,450,000	\$4,150,000	\$2,700,000	\$4,150,000	\$7,925,000	\$4,550,000	\$5,700,000	\$0	\$5,700,000	\$4,225,000	\$5,400,000
<b>Office Flex</b>	\$6,615,000	\$1,890,000	\$3,780,000	\$1,890,000	\$3,780,000	\$2,835,000	\$3,780,000	\$7,740,000	\$0	\$7,740,000	\$5,895,000	\$3,780,000
<b>Retail - Community Scale</b>	\$0	\$7,500,000	\$0	\$7,500,000	\$7,500,000	\$0	\$11,250,000	\$0	\$0	\$7,500,000	\$0	\$11,250,000
<b>Retail - Regional Scale</b>	\$11,250,000	\$7,500,000	\$0	\$0	\$0	\$3,750,000	\$7,500,000	\$7,500,000	\$15,000,000	\$7,500,000	\$11,250,000	\$15,000,000
<b>Service</b>	\$3,150,000	\$0	\$3,825,000	\$1,125,000	\$1,125,000	\$1,125,000	\$1,485,000	\$0	\$0	\$0	\$0	\$0
<b>Industrial</b>	\$3,806,250	\$1,087,500	\$2,175,000	\$1,087,500	\$2,175,000	\$1,631,250	\$2,175,000	\$4,275,000	\$0	\$4,275,000	\$3,168,750	\$2,175,000
<b>Lodging</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$11,250,000	\$0	\$0	\$0	\$0
<b>Medical Campus</b>	\$25,000,000	\$0	\$25,000,000	\$0	\$0	\$0	\$25,000,000	\$0	\$31,250,000	\$0	\$31,250,000	\$0
<b>Education - K-12 (Tax Exempt)</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	\$54,896,250	\$19,427,500	\$38,930,000	\$14,302,500	\$18,730,000	\$17,266,250	\$55,740,000	\$36,465,000	\$46,250,000	\$32,715,000	\$55,788,750	\$37,605,000
<b>Cumulative Market Values</b>												
<b>Cumulative without Inflation</b>	\$425,036,750	\$444,464,250	\$483,394,250	\$497,696,750	\$516,426,750	\$533,693,000	\$589,433,000	\$625,898,000	\$672,148,000	\$704,863,000	\$760,651,750	\$798,256,750
<i>Real Estate Inflation Rate</i>	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
<b>Cumulative Market Values with Inflation</b>	\$425,036,750	\$444,464,250	\$483,394,250	\$497,696,750	\$516,426,750	\$533,693,000	\$589,433,000	\$625,898,000	\$672,148,000	\$704,863,000	\$760,651,750	\$798,256,750
<b>Annual "Actual" Value - Year Complete</b>												
<i>Annual Inflation Factor</i>	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
<b>Office</b>	\$5,582,500	\$1,595,000	\$4,565,000	\$2,970,000	\$4,565,000	\$8,717,500	\$5,005,000	\$6,270,000	\$0	\$6,270,000	\$4,647,500	\$5,940,000
<b>Office Flex</b>	\$6,945,750	\$1,984,500	\$3,969,000	\$1,984,500	\$3,969,000	\$2,976,750	\$3,969,000	\$8,127,000	\$0	\$8,127,000	\$6,189,750	\$3,969,000
<b>Retail - Community Scale</b>	\$0	\$8,250,000	\$0	\$8,250,000	\$8,250,000	\$0	\$12,375,000	\$0	\$0	\$8,250,000	\$0	\$12,375,000
<b>Retail - Regional Scale</b>	\$12,375,000	\$8,250,000	\$0	\$0	\$0	\$4,125,000	\$8,250,000	\$8,250,000	\$16,500,000	\$8,250,000	\$12,375,000	\$16,500,000
<b>Service</b>	\$3,307,500	\$0	\$4,016,250	\$1,181,250	\$1,181,250	\$1,181,250	\$1,559,250	\$0	\$0	\$0	\$0	\$0
<b>Industrial</b>	\$3,996,563	\$1,141,875	\$2,283,750	\$1,141,875	\$2,283,750	\$1,712,813	\$2,283,750	\$4,488,750	\$0	\$4,488,750	\$3,327,188	\$2,283,750
<b>Lodging</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$12,600,000	\$0	\$0	\$0	\$0
<b>Medical Campus</b>	\$30,000,000	\$0	\$30,000,000	\$0	\$0	\$0	\$30,000,000	\$0	\$37,500,000	\$0	\$37,500,000	\$0
<b>Education - K-12 (Tax Exempt)</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Annual Actual Values - No Inflation</b>	\$62,207,313	\$21,221,375	\$44,834,000	\$15,527,625	\$20,249,000	\$18,713,313	\$63,442,000	\$39,735,750	\$54,000,000	\$35,385,750	\$64,039,438	\$41,067,750
<b>Cumulative Actual Values</b>												
<b>Cumulative (Constant \$)</b>	\$476,054,338	\$497,275,713	\$542,109,713	\$557,637,338	\$577,886,338	\$596,599,650	\$660,041,650	\$699,777,400	\$753,777,400	\$789,163,150	\$853,202,588	\$894,270,338
<i>Real Estate Inflation Factor</i>	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
<b>Cumulative with Inflation</b>	\$476,054,338	\$497,275,713	\$542,109,713	\$557,637,338	\$577,886,338	\$596,599,650	\$660,041,650	\$699,777,400	\$753,777,400	\$789,163,150	\$853,202,588	\$894,270,338
<b>Cumulative Square Feet - Complete</b>												
<b>Office</b>	425,650	440,150	481,650	508,650	550,150	629,400	674,900	731,900	731,900	788,900	831,150	885,150
<b>Office - Flex</b>	575,700	596,700	638,700	659,700	701,700	733,200	775,200	861,200	861,200	947,200	1,012,700	1,054,700
<b>Retail - Community Scale</b>	200,000	250,000	250,000	300,000	350,000	350,000	425,000	425,000	425,000	475,000	475,000	550,000
<b>Retail - Regional Scale</b>	885,000	935,000	935,000	935,000	935,000	960,000	1,010,000	1,060,000	1,160,000	1,210,000	1,285,000	1,385,000
<b>Service</b>	134,000	134,000	176,500	189,000	201,500	214,000	230,500	230,500	230,500	230,500	230,500	230,500
<b>Industrial</b>	344,650	359,150	388,150	402,650	431,650	453,400	482,400	539,400	539,400	596,400	638,650	667,650
<b>Lodging</b>	0	0	0	0	0	0	0	150,000	150,000	150,000	150,000	150,000
<b>Medical &amp; Educational (Taxable)</b>	520,000	520,000	620,000	620,000	620,000	620,000	720,000	720,000	845,000	845,000	970,000	970,000
<b>Education - K-12 and Community College</b>	154,800	154,800	154,800	232,200	372,200	372,200	372,200	372,200	372,200	372,200	449,600	449,600
<b>Total</b>	3,239,800	3,389,800	3,644,800	3,847,200	4,162,200	4,332,200	4,690,200	5,090,200	5,315,200	5,615,200	6,042,600	6,342,600
<b>Note: Lodging Rooms Occupied</b>	0	0	0	0	0	0	0	300	300	300	300	300
<b>Cumulative Square Feet - Occupied</b>												
<b>Office</b>	404,368	418,143	457,568	483,218	522,643	597,930	641,155	695,305	695,305	749,455	789,593	840,893
<b>Office - Flex</b>	546,915	566,865	606,765	626,715	666,615	696,540	736,440	818,140	818,140	899,840	962,065	1,001,965
<b>Retail - Community Scale</b>	190,000	237,500	237,500	285,000	332,500	332,500	403,750	403,750	403,750	451,250	451,250	522,500
<b>Retail - Regional Scale</b>	840,750	888,250	888,250	888,250	888,250	912,000	959,500	1,007,000	1,102,000	1,149,500	1,220,750	1,315,750
<b>Service</b>	127,300	127,300	167,675	179,550	191,425	203,300	218,975	218,975	218,975	218,975	218,975	218,975
<b>Industrial</b>	327,418	341,193	368,743	382,518	410,068	430,730	458,280	512,430	512,430	566,580	606,718	634,268
<b>Lodging</b>								150,000	150,000	150,000	150,000	150,000

TABLE 2 - PROSPER												
Construction Year	14	15	16	17	18	19	20	21	22	23	24	25
Medical & Educational (Taxable)	494,000	494,000	589,000	589,000	589,000	589,000	684,000	684,000	802,750	802,750	921,500	921,500
Education - K-12 and Community College	154,800	154,800	154,800	232,200	372,200	372,200	372,200	372,200	372,200	372,200	449,600	449,600
<b>Total</b>	<b>3,085,551</b>	<b>3,228,051</b>	<b>3,470,301</b>	<b>3,666,451</b>	<b>3,972,701</b>	<b>4,134,200</b>	<b>4,474,300</b>	<b>4,861,800</b>	<b>5,075,550</b>	<b>5,360,550</b>	<b>5,770,451</b>	<b>6,055,451</b>
<b>Cumulative Employees of Occupied Space</b>												
Office	2,022	2,091	2,288	2,416	2,613	2,990	3,206	3,477	3,477	3,747	3,948	4,204
Office - Flex	2,188	2,267	2,427	2,507	2,666	2,786	2,946	3,273	3,273	3,599	3,848	4,008
Retail - Community Scale	380	475	475	570	665	665	808	808	808	903	903	1,045
Retail - Regional Scale	1,682	1,777	1,777	1,777	1,777	1,824	1,919	2,014	2,204	2,299	2,442	2,632
Service	255	255	335	359	383	407	438	438	438	438	438	438
Industrial	655	682	737	765	820	861	917	1,025	1,025	1,133	1,213	1,269
Lodging	-	-	-	-	-	-	-	333	333	333	333	333
Medical Campus	1,647	1,647	1,963	1,963	1,963	1,963	2,280	2,280	2,676	2,676	3,072	3,072
Education - K-12 (Tax Exempt)	155	155	155	232	372	372	372	372	372	372	450	450
<b>Total</b>	<b>8,984</b>	<b>9,349</b>	<b>10,157</b>	<b>10,589</b>	<b>11,259</b>	<b>11,868</b>	<b>12,886</b>	<b>14,020</b>	<b>14,606</b>	<b>15,500</b>	<b>16,647</b>	<b>17,451</b>
<b>NONRESIDENTIAL - IMPROVED</b>												
Cumulative Market Value - Inflated	\$425,036,750	\$444,464,250	\$483,394,250	\$497,696,750	\$516,426,750	\$533,693,000	\$589,433,000	\$625,898,000	\$672,148,000	\$704,863,000	\$760,651,750	\$798,256,750
Cumulative "Actual" Value w PP - Inflated	\$476,054,338	\$497,275,713	\$542,109,713	\$557,637,338	\$577,886,338	\$596,599,650	\$660,041,650	\$699,777,400	\$753,777,400	\$789,163,150	\$853,202,588	\$894,270,338
Cumulative Assessed Value - Inflated	\$138,055,758	\$144,209,957	\$157,211,817	\$161,714,828	\$167,587,038	\$173,013,899	\$191,412,079	\$202,935,446	\$218,595,446	\$228,857,314	\$247,428,750	\$259,338,398
<b>NONRESIDENTIAL - VACANT LAND VALUES</b>												
Annual Actual Value - Improved - Year Complete	\$62,207,313	\$21,221,375	\$44,834,000	\$15,527,625	\$20,249,000	\$18,713,313	\$63,442,000	\$39,735,750	\$54,000,000	\$35,385,750	\$64,039,438	\$41,067,750
Annual Value - Land (1 Years Prior)	\$2,122,138	\$4,483,400	\$1,552,763	\$2,024,900	\$1,871,331	\$6,344,200	\$3,973,575	\$5,400,000	\$3,538,575	\$6,403,944	\$4,106,775	\$8,329,650
Annual Assessed Value - Land	\$615,420	\$1,300,186	\$450,301	\$587,221	\$542,686	\$1,839,818	\$1,152,337	\$1,566,000	\$1,026,187	\$1,857,144	\$1,190,965	\$2,415,599
<b>GRAND TOTALS (Residential + Nonresident)</b>												
<b>IMPROVED PROPERTY</b>												
Annual Construction Values	\$56,699,000	\$86,621,000	\$74,608,600	\$93,453,500	\$57,338,600	\$108,759,000	\$94,162,500	\$96,777,500	\$65,892,500	\$95,637,100	\$59,435,500	\$108,262,000
Cumulative Sq. Ft. Completed	8,881,100	9,451,100	10,224,500	10,938,900	11,841,400	12,422,300	13,430,100	14,366,800	15,196,700	15,903,800	16,743,600	17,375,100
Cumulative Market Value	\$1,153,389,738	\$1,227,503,068	\$1,333,403,405	\$1,412,505,883	\$1,511,574,412	\$1,585,355,720	\$1,731,349,645	\$1,840,346,116	\$1,970,547,842	\$2,059,162,986	\$2,171,444,043	\$2,254,991,599
Cumulative "Actual" Value	\$1,204,407,325	\$1,280,314,530	\$1,392,118,868	\$1,472,446,471	\$1,573,033,999	\$1,648,262,370	\$1,801,958,295	\$1,914,225,516	\$2,052,177,242	\$2,143,463,136	\$2,263,994,881	\$2,351,005,187
Cumulative Assessed Value - Improvements	\$196,032,656	\$206,539,847	\$224,872,545	\$234,533,635	\$246,800,792	\$256,726,251	\$282,308,643	\$299,605,516	\$321,948,073	\$336,659,592	\$359,727,817	\$375,294,492
<b>ANNUAL LAND VALUES</b>												
Residential Land - Assessed Value	\$1,585,889	\$1,942,140	\$1,879,199	\$2,329,817	\$1,638,937	\$2,617,364	\$2,103,413	\$2,434,600	\$1,621,104	\$1,638,277	\$1,332,334	\$1,815,081
Nonresidential Land - Assessed Value	\$615,420	\$1,300,186	\$450,301	\$587,221	\$542,686	\$1,839,818	\$1,152,337	\$1,566,000	\$1,026,187	\$1,857,144	\$1,190,965	\$2,415,599
Cumulative Assessed Value - Land	\$2,201,309	\$3,242,326	\$2,329,500	\$2,917,038	\$2,181,623	\$4,457,182	\$3,255,749	\$4,000,600	\$2,647,291	\$3,495,421	\$2,523,299	\$4,230,679
<b>GRAND TOTAL CUM. ASSESSED VALUE</b>	<b>\$198,233,965</b>	<b>\$209,782,172</b>	<b>\$227,202,046</b>	<b>\$237,450,673</b>	<b>\$248,982,414</b>	<b>\$261,183,433</b>	<b>\$285,564,393</b>	<b>\$303,606,116</b>	<b>\$324,595,364</b>	<b>\$340,155,013</b>	<b>\$362,251,116</b>	<b>\$379,525,171</b>
<b>CUMULATIVE ACTUAL VALUES</b>												
Vacant Land	\$7,590,721	\$11,180,434	\$8,032,760	\$10,058,753	\$7,522,837	\$15,369,593	\$11,226,722	\$13,795,173	\$9,128,589	\$12,053,174	\$8,701,031	\$14,588,548
Residential Improved	\$728,352,988	\$783,038,818	\$850,009,155	\$914,809,133	\$995,147,662	\$1,051,662,720	\$1,141,916,645	\$1,214,448,116	\$1,298,399,842	\$1,354,299,986	\$1,410,792,293	\$1,456,734,849
Non-Residential Improved	\$476,054,338	\$497,275,713	\$542,109,713	\$557,637,338	\$577,886,338	\$596,599,650	\$660,041,650	\$699,777,400	\$753,777,400	\$789,163,150	\$853,202,588	\$894,270,338
<b>TOTAL</b>	<b>\$1,211,998,046</b>	<b>\$1,291,494,964</b>	<b>\$1,400,151,628</b>	<b>\$1,482,505,223</b>	<b>\$1,580,556,836</b>	<b>\$1,663,631,962</b>	<b>\$1,813,185,017</b>	<b>\$1,928,020,688</b>	<b>\$2,061,305,832</b>	<b>\$2,155,516,311</b>	<b>\$2,272,695,911</b>	<b>\$2,365,593,735</b>
<b>LANE MILES</b>												
Annual Lane Miles Built	15.748	0.000	0.000	23.692	14.040	0.000	15.526	12.300	0.000	3.590	0.000	0.000
Cumulative Lane Miles - Built	171.300	171.300	171.300	194.992	209.032	209.032	224.558	236.858	236.858	240.448	240.448	240.448
Cumulative Lane Miles Complete	155.552	171.300	171.300	171.300	194.992	209.032	209.032	224.558	236.858	236.858	240.448	240.448
<b>CUMULATIVE RETAIL DETAIL</b>												
Retail - Community Scale	200,000	250,000	250,000	300,000	350,000	350,000	425,000	425,000	425,000	475,000	475,000	550,000
Retail - Regional Scale	885,000	935,000	935,000	935,000	935,000	960,000	1,010,000	1,060,000	1,160,000	1,210,000	1,285,000	1,385,000
<b>Total Retail Completed</b>	<b>1,085,000</b>	<b>1,185,000</b>	<b>1,185,000</b>	<b>1,235,000</b>	<b>1,285,000</b>	<b>1,310,000</b>	<b>1,435,000</b>	<b>1,485,000</b>	<b>1,585,000</b>	<b>1,685,000</b>	<b>1,760,000</b>	<b>1,935,000</b>
Year Constructed	14	15	16	17	18	19	20	21	22	23	24	25
Year Assessed	15	16	17	18	19	20	21	22	23	24	25	26
Year Tax Revenues Collected	16	17	18	19	20	21	22	23	24	25	26	27

Construction Year	26	27	28	29	30	31	32
<b>RESIDENTIAL DEVELOPMENT</b>							
<b>Annual Units - Year Built</b>							
Low Density	60	78	98	129	62	0	0
Medium Density	177	180	148	130	136	0	0
High Density & Mixed Use	105	185	252	401	315	0	0
Total	342	443	498	660	513	0	0
<b>Acres Developed</b>							
Low Density	30.0	39.0	49.0	64.5	31.0	0.0	0.0
Medium Density	59.0	60.0	49.3	43.3	45.3	0.0	0.0
High Density	8.8	15.4	21.0	33.4	26.3	0.0	0.0
Total	97.8	114.4	119.3	141.3	102.6	0.0	0.0
<b>Annual Square Feet - Year Built</b>							
Low Density	210,000	273,000	343,000	451,500	217,000	0	0
Medium Density	318,600	324,000	266,400	234,000	244,800	0	0
High Density	94,500	166,500	226,800	360,900	283,500	0	0
Total	623,100	763,500	836,200	1,046,400	745,300	0	0
<b>Annual Units - Complete</b>							
Low Density	35	60	78	98	129	62	0
Medium Density	145	177	180	148	130	136	0
High Density	95	105	185	252	401	315	0
Total	275	342	443	498	660	513	0
<b>Annual Square Feet - Complete</b>							
Low Density	122,500	210,000	273,000	343,000	451,500	217,000	0
Medium Density	261,000	318,600	324,000	266,400	234,000	244,800	0
High Density	85,500	166,500	226,800	360,900	283,500	283,500	0
Total	469,000	623,100	763,500	836,200	1,046,400	745,300	0
<b>Annual Construction Values - Year Built</b>							
Real Estate Inflation Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Low Density	\$23,310,000	\$30,303,000	\$38,073,000	\$50,116,500	\$24,087,000	\$0	\$0
Medium Density	\$33,453,000	\$34,020,000	\$27,972,000	\$24,570,000	\$25,704,000	\$0	\$0
High Density	\$9,355,500	\$16,483,500	\$22,453,200	\$35,729,100	\$28,066,500	\$0	\$0
Total	\$66,118,500	\$80,806,500	\$88,498,200	\$110,415,600	\$77,857,500	\$0	\$0
<b>Annual Market Value - Complete (Constant \$)</b>							
Excludes Inflation Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Low Density	\$12,143,293	\$20,817,073	\$27,062,195	\$34,001,220	\$44,756,707	\$21,510,976	\$0
Medium Density	\$35,555,710	\$43,402,487	\$44,138,122	\$36,291,345	\$31,877,533	\$33,348,804	\$0
High Density	\$14,889,982	\$16,457,348	\$28,996,280	\$39,497,636	\$62,851,396	\$49,372,044	\$0
Annual Market Values - w/o inflation	\$62,588,984	\$80,676,908	\$100,196,598	\$109,790,200	\$139,485,636	\$104,231,824	\$0
<b>Cumulative Market Values</b>							
Cumulative without Inflation	\$1,519,323,833	\$1,600,000,742	\$1,700,197,340	\$1,809,987,540	\$1,949,473,176	\$2,053,705,000	\$2,053,705,000
Real Estate Inflation Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Cumulative Market Values with Inflation	\$1,519,323,833	\$1,600,000,742	\$1,700,197,340	\$1,809,987,540	\$1,949,473,176	\$2,053,705,000	\$2,053,705,000
<b>Annual "Actual" Values (Constant \$)</b>							
Excludes Inflation Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Low Density	\$12,143,293	\$20,817,073	\$27,062,195	\$34,001,220	\$44,756,707	\$21,510,976	\$0
Medium Density	\$35,555,710	\$43,402,487	\$44,138,122	\$36,291,345	\$31,877,533	\$33,348,804	\$0
High Density	\$14,889,982	\$16,457,348	\$28,996,280	\$39,497,636	\$62,851,396	\$49,372,044	\$0
Annual Actual Values	\$62,588,984	\$80,676,908	\$100,196,598	\$109,790,200	\$139,485,636	\$104,231,824	\$0
<b>Cumulative Actual Values</b>							
Cumulative (Constant \$)	\$1,519,323,833	\$1,600,000,742	\$1,700,197,340	\$1,809,987,540	\$1,949,473,176	\$2,053,705,000	\$2,053,705,000
Real Estate Inflation Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Cumulative with Inflation	\$1,519,323,833	\$1,600,000,742	\$1,700,197,340	\$1,809,987,540	\$1,949,473,176	\$2,053,705,000	\$2,053,705,000
<b>Cumulative Units - Complete</b>							
Single Family (Low Density)	680	740	818	916	1,045	1,107	1,107
Multi-Family (Medium & High Density)	5,665	5,947	6,312	6,712	7,243	7,694	7,694

<b>TABLE 2 - PROSPER</b>							
<b>Construction Year</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>	<b>31</b>	<b>32</b>
Total	6,345	6,687	7,130	7,628	8,288	8,801	8,801
Occupied Units	6,028	6,353	6,774	7,247	7,874	8,361	8,361
Population	16100	16970	18096	19363	21042	22,344	22,344
<b>Cumulative Square Feet - Complete</b>							
Single Family (Low Density)	2,380,000	2,590,000	2,863,000	3,206,000	3,657,500	3,874,500	3,874,500
Multi-Family (Medium & High Density)	9,121,500	9,534,600	10,025,100	10,518,300	11,113,200	11,641,500	11,641,500
Total	11,501,500	12,124,600	12,888,100	13,724,300	14,770,700	15,516,000	15,516,000
<b>Cumulative Market Values w/ Inflation</b>							
	\$1,519,323,833	\$1,600,000,742	\$1,700,197,340	\$1,809,987,540	\$1,949,473,176	\$2,053,705,000	\$2,053,705,000
<b>Cumulative "Actual" Values w/ Inflation</b>							
	\$1,519,323,833	\$1,600,000,742	\$1,700,197,340	\$1,809,987,540	\$1,949,473,176	\$2,053,705,000	\$2,053,705,000
<b>Cumulative Assessed Value</b>							
	\$120,938,177	\$127,360,059	\$135,335,708	\$144,075,008	\$155,178,065	\$163,474,918	\$163,474,918
<b>RESIDENTIAL - VACANT LAND VALUES</b>							
Annual Actual Value - Improved Year Complete	\$62,588,984	\$80,676,908	\$100,196,598	\$109,790,200	\$139,485,636	\$104,231,824	\$0
Annual Value - Land (1 Year Prior)	\$8,067,691	\$10,019,660	\$10,979,020	\$13,948,564	\$10,423,182	\$0	\$0
Annual Assessed Value - Land (at 29%)	\$2,339,630	\$2,905,701	\$3,183,916	\$4,045,083	\$3,022,723	\$0	\$0
<b>NONRESIDENTIAL DEVELOPMENT</b>							
<b>Annual Square Feet - Year Built</b>							
Office	94,000	160,150	57,900	105,375	79,600		
Office - Flex	42,000	107,500	42,000	90,950	52,500		
Retail - Community Scale	0	0	0	0	0		
Retail - Regional Scale	50,000	125,000	0	100,000	145,000		
Service	15,000	61,100	91,100	31,650	31,650		
Industrial	29,000	71,250	29,000	62,025	36,250		
Lodging	0	0	0	0	0	0	0
Medical Campus	0	0	0	0	0	0	0
Education - K-12	77,400	0	0	0	0	0	0
Total	307,400	525,000	220,000	390,000	345,000	0	0
Note: Lodging Rooms							
<b>Annual Acres Developed</b>							
Office	7.2	12.3	4.4	8.1	6.1	0.0	0.0
Office - Flex	2.7	6.9	2.7	5.8	3.3	0.0	0.0
Retail - Community Scale	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Retail - Regional Scale	3.6	9.0	0.0	7.2	10.4	0.0	0.0
Service	1.0	4.1	6.2	2.1	2.1	0.0	0.0
Industrial	1.8	4.5	1.8	4.0	2.3	0.0	0.0
Lodging	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Medical Campus	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Education - K-12	13.7	0.0	0.0	0.0	0.0	0.0	0.0
Total	30.0	36.7	15.1	27.1	24.3	0.0	0.0
<b>Annual Square Feet - Complete</b>							
Office	144,000	94,000	160,150	57,900	105,375	79,600	0
Office Flex	97,000	42,000	107,500	42,000	90,950	52,500	0
Retail - Community Scale	0	0	0	0	0	0	0
Retail - Regional Scale	50,000	50,000	125,000	0	100,000	145,000	0
Service	0	15,000	61,100	91,100	31,650	31,650	0
Industrial	64,000	29,000	71,250	29,000	62,025	36,250	0
Lodging	0	0	0	0	0	0	0
Medical Campus	150,000	0	0	0	0	0	0
Education - K-12	0	77,400	0	0	0	0	0
Total	505,000	307,400	525,000	220,000	390,000	345,000	0
<b>Annual Construction Values - Year Built</b>							
Real Estate Inflation Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Office	\$9,400,000	\$16,015,000	\$5,790,000	\$10,537,500	\$7,960,000	\$0	\$0
Office Flex	\$2,730,000	\$6,987,500	\$2,730,000	\$5,911,750	\$3,412,500	\$0	\$0
Retail - Community Scale	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Retail - Regional Scale	\$4,250,000	\$10,625,000	\$0	\$8,500,000	\$12,325,000	\$0	\$0

<b>TABLE 2 - PROSPER</b>							
<b>Construction Year</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>	<b>31</b>	<b>32</b>
Service	\$1,050,000	\$4,277,000	\$6,377,000	\$2,215,500	\$2,215,500	\$0	\$0
Industrial	\$1,740,000	\$4,275,000	\$1,740,000	\$3,721,500	\$2,175,000	\$0	\$0
Lodging	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Medical Campus	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Education - K-12	\$9,984,600	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$29,154,600</b>	<b>\$42,179,500</b>	<b>\$16,637,000</b>	<b>\$30,886,250</b>	<b>\$28,088,000</b>	<b>\$0</b>	<b>\$0</b>
<b>Annual Market Value - Year Complete</b>							
<i>Excludes Inflation</i>	<i>1.000</i>	<i>1.000</i>	<i>1.000</i>	<i>1.000</i>	<i>1.000</i>	<i>1.000</i>	<i>1.000</i>
Office	\$14,400,000	\$9,400,000	\$16,015,000	\$5,790,000	\$10,537,500	\$7,960,000	\$0
Office Flex	\$8,730,000	\$3,780,000	\$9,675,000	\$3,780,000	\$8,185,500	\$4,725,000	\$0
Retail - Community Scale	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Retail - Regional Scale	\$7,500,000	\$7,500,000	\$18,750,000	\$0	\$15,000,000	\$21,750,000	\$0
Service	\$0	\$1,350,000	\$5,499,000	\$8,199,000	\$2,848,500	\$2,848,500	\$0
Industrial	\$4,800,000	\$2,175,000	\$5,343,750	\$2,175,000	\$4,651,875	\$2,718,750	\$0
Lodging	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Medical Campus	\$37,500,000	\$0	\$0	\$0	\$0	\$0	\$0
Education - K-12 (Tax Exempt)	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$72,930,000</b>	<b>\$24,205,000</b>	<b>\$55,282,750</b>	<b>\$19,944,000</b>	<b>\$41,223,375</b>	<b>\$40,002,250</b>	<b>\$0</b>
<b>Cumulative Market Values</b>							
Cumulative without Inflation	\$871,186,750	\$895,391,750	\$950,674,500	\$970,618,500	\$1,011,841,875	\$1,051,844,125	\$1,051,844,125
<i>Real Estate Inflation Rate</i>	<i>1.000</i>	<i>1.000</i>	<i>1.000</i>	<i>1.000</i>	<i>1.000</i>	<i>1.000</i>	<i>1.000</i>
Cumulative Market Values with Inflation	\$871,186,750	\$895,391,750	\$950,674,500	\$970,618,500	\$1,011,841,875	\$1,051,844,125	\$1,051,844,125
<b>Annual "Actual" Value - Year Complete</b>							
<i>Annual Inflation Factor</i>	<i>1.000</i>	<i>1.000</i>	<i>1.000</i>	<i>1.000</i>	<i>1.000</i>	<i>1.000</i>	<i>1.000</i>
Office	\$15,840,000	\$10,340,000	\$17,616,500	\$6,369,000	\$11,591,250	\$8,756,000	\$0
Office Flex	\$9,166,500	\$3,969,000	\$10,158,750	\$3,969,000	\$8,594,775	\$4,961,250	\$0
Retail - Community Scale	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Retail - Regional Scale	\$8,250,000	\$8,250,000	\$20,625,000	\$0	\$16,500,000	\$23,925,000	\$0
Service	\$0	\$1,417,500	\$5,773,950	\$8,608,950	\$2,990,925	\$2,990,925	\$0
Industrial	\$5,040,000	\$2,283,750	\$5,610,938	\$2,283,750	\$4,884,469	\$2,854,688	\$0
Lodging	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Medical Campus	\$45,000,000	\$0	\$0	\$0	\$0	\$0	\$0
Education - K-12 (Tax Exempt)	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Annual Actual Values - No Inflation</b>	<b>\$83,296,500</b>	<b>\$26,260,250</b>	<b>\$59,785,138</b>	<b>\$21,230,700</b>	<b>\$44,561,419</b>	<b>\$43,487,863</b>	<b>\$0</b>
<b>Cumulative Actual Values</b>							
Cumulative (Constant \$)	\$977,566,838	\$1,003,827,088	\$1,063,612,225	\$1,084,842,925	\$1,129,404,344	\$1,172,892,206	\$1,172,892,206
<i>Real Estate Inflation Factor</i>	<i>1.000</i>	<i>1.000</i>	<i>1.000</i>	<i>1.000</i>	<i>1.000</i>	<i>1.000</i>	<i>1.000</i>
Cumulative with Inflation	\$977,566,838	\$1,003,827,088	\$1,063,612,225	\$1,084,842,925	\$1,129,404,344	\$1,172,892,206	\$1,172,892,206
<b>Cumulative Square Feet - Complete</b>							
Office	1,029,150	1,123,150	1,283,300	1,341,200	1,446,575	1,526,175	1,526,175
Office - Flex	1,151,700	1,193,700	1,301,200	1,343,200	1,434,150	1,486,650	1,486,650
Retail - Community Scale	550,000	550,000	550,000	550,000	550,000	550,000	550,000
Retail - Regional Scale	1,435,000	1,485,000	1,610,000	1,610,000	1,710,000	1,855,000	1,855,000
Service	230,500	245,500	306,600	397,700	429,350	461,000	461,000
Industrial	731,650	760,650	831,900	860,900	922,925	959,175	959,175
Lodging	150,000	150,000	150,000	150,000	150,000	150,000	150,000
Medical & Educational (Taxable)	1,120,000	1,120,000	1,120,000	1,120,000	1,120,000	1,120,000	1,120,000
Education - K-12 and Community College	449,600	527,000	527,000	527,000	527,000	527,000	527,000
<b>Total</b>	<b>6,847,600</b>	<b>7,155,000</b>	<b>7,680,000</b>	<b>7,900,000</b>	<b>8,290,000</b>	<b>8,635,000</b>	<b>8,635,000</b>
Note: Lodging Rooms Occupied	300	300	300	300	300	300	300
<b>Cumulative Square Feet - Occupied</b>							
Office	977,693	1,066,993	1,219,135	1,274,140	1,374,246	1,449,866	1,449,866
Office - Flex	1,094,115	1,134,015	1,236,140	1,276,040	1,362,443	1,412,318	1,412,318
Retail - Community Scale	522,500	522,500	522,500	522,500	522,500	522,500	522,500
Retail - Regional Scale	1,363,250	1,410,750	1,529,500	1,529,500	1,624,500	1,762,250	1,762,250
Service	218,975	233,225	291,270	377,815	407,883	437,950	437,950
Industrial	695,068	722,618	790,305	817,855	876,779	911,216	911,216
Lodging	150,000	150,000	150,000	150,000	150,000	150,000	150,000

<b>TABLE 2 - PROSPER</b>							
<b>Construction Year</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>	<b>31</b>	<b>32</b>
Medical & Educational (Taxable)	1,064,000	1,064,000	1,064,000	1,064,000	1,064,000	1,064,000	1,064,000
Education - K-12 and Community College	449,600	527,000	527,000	527,000	527,000	527,000	527,000
<b>Total</b>	<b>6,535,201</b>	<b>6,831,101</b>	<b>7,329,850</b>	<b>7,538,850</b>	<b>7,909,351</b>	<b>8,237,100</b>	<b>8,237,100</b>
<b>Cumulative Employees of Occupied Space</b>							
Office	4,888	5,335	6,096	6,371	6,871	7,249	7,249
Office - Flex	4,376	4,536	4,945	5,104	5,450	5,649	5,649
Retail - Community Scale	1,045	1,045	1,045	1,045	1,045	1,045	1,045
Retail - Regional Scale	2,727	2,822	3,059	3,059	3,249	3,525	3,525
Service	438	466	583	756	816	876	876
Industrial	1,390	1,445	1,581	1,636	1,754	1,822	1,822
Lodging	333	333	333	333	333	333	333
Medical Campus	3,547	3,547	3,547	3,547	3,547	3,547	3,547
Education - K-12 (Tax Exempt)	450	527	527	527	527	527	527
<b>Total</b>	<b>19,194</b>	<b>20,056</b>	<b>21,716</b>	<b>22,378</b>	<b>23,592</b>	<b>24,573</b>	<b>24,573</b>
<b>NONRESIDENTIAL - IMPROVED</b>							
Cumulative Market Value - Inflated	\$871,186,750	\$895,391,750	\$950,674,500	\$970,618,500	\$1,011,841,875	\$1,051,844,125	\$1,051,844,125
Cumulative "Actual" Value w PP - Inflated	\$977,566,838	\$1,003,827,088	\$1,063,612,225	\$1,084,842,925	\$1,129,404,344	\$1,172,892,206	\$1,172,892,206
Cumulative Assessed Value - Inflated	\$283,494,383	\$291,109,855	\$308,447,545	\$314,604,448	\$327,527,260	\$340,138,740	\$340,138,740
<b>NONRESIDENTIAL - VACANT LAND VALUES</b>							
Annual Actual Value - Improved - Year Complete	\$83,296,500	\$26,260,250	\$59,785,138	\$21,230,700	\$44,561,419	\$43,487,863	\$0
Annual Value - Land (1 Years Prior)	\$2,626,025	\$5,978,514	\$2,123,070	\$4,456,142	\$4,348,786	\$0	\$0
Annual Assessed Value - Land	\$761,547	\$1,733,769	\$615,690	\$1,292,281	\$1,261,148	\$0	\$0
<b>GRAND TOTALS (Residential + Nonresident)</b>							
<b>IMPROVED PROPERTY</b>							
Annual Construction Values	\$95,273,100	\$122,986,000	\$105,135,200	\$141,301,850	\$105,945,500	\$0	\$0
Cumulative Sq.Ft. Completed	18,349,100	19,279,600	20,568,100	21,624,300	23,060,700	24,151,000	24,151,000
Cumulative Market Value	\$2,390,510,583	\$2,495,392,492	\$2,650,871,840	\$2,780,606,040	\$2,961,315,051	\$3,105,549,125	\$3,105,549,125
Cumulative "Actual" Value	\$2,496,890,671	\$2,603,877,829	\$2,763,809,565	\$2,894,830,465	\$3,078,877,520	\$3,226,597,206	\$3,226,597,206
Cumulative Assessed Value - Improvements	\$404,432,560	\$418,469,914	\$443,783,253	\$458,679,456	\$482,705,325	\$503,613,658	\$503,613,658
<b>ANNUAL LAND VALUES</b>							
Residential Land - Assessed Value	\$2,339,630	\$2,905,701	\$3,183,916	\$4,045,083	\$3,022,723	\$0	\$0
Nonresidential Land - Assessed Value	\$761,547	\$1,733,769	\$615,690	\$1,292,281	\$1,261,148	\$0	\$0
Cumulative Assessed Value - Land	\$3,101,178	\$4,639,470	\$3,799,606	\$5,337,365	\$4,283,871	\$0	\$0
<b>GRAND TOTAL CUM. ASSESSED VALUE</b>	<b>\$407,533,738</b>	<b>\$423,109,385</b>	<b>\$447,582,860</b>	<b>\$464,016,821</b>	<b>\$486,989,195</b>	<b>\$503,613,658</b>	<b>\$503,613,658</b>
<b>CUMULATIVE ACTUAL VALUES</b>							
Vacant Land	\$10,693,716	\$15,998,174	\$13,102,090	\$18,404,706	\$14,771,969	\$0	\$0
Residential Improved	\$1,519,323,833	\$1,600,000,742	\$1,700,197,340	\$1,809,987,540	\$1,949,473,176	\$2,053,705,000	\$2,053,705,000
Non-Residential Improved	\$977,566,838	\$1,003,827,088	\$1,063,612,225	\$1,084,842,925	\$1,129,404,344	\$1,172,892,206	\$1,172,892,206
<b>TOTAL</b>	<b>\$2,507,584,387</b>	<b>\$2,619,826,003</b>	<b>\$2,776,911,655</b>	<b>\$2,913,235,170</b>	<b>\$3,093,649,489</b>	<b>\$3,226,597,206</b>	<b>\$3,226,597,206</b>
<b>LANE MILES</b>							
Annual Lane Miles Built	4.516	0.000	3.604	0.000	0.000	0.000	0.000
Cumulative Lane Miles - Built	244.964	244.964	248.568	248.568	248.568	248.568	248.568
Cumulative Lane Miles Complete	240.448	244.964	244.964	248.568	248.568	248.568	248.568
<b>CUMULATIVE RETAIL DETAIL</b>							
Retail - Community Scale	550,000	550,000	550,000	550,000	550,000	550,000	550,000
Retail - Regional Scale	1,435,000	1,485,000	1,610,000	1,610,000	1,710,000	1,855,000	1,855,000
<b>Total Retail Completed</b>	<b>1,985,000</b>	<b>2,035,000</b>	<b>2,160,000</b>	<b>2,160,000</b>	<b>2,260,000</b>	<b>2,405,000</b>	<b>2,405,000</b>
Year Constructed	26	27	28	29	30	31	32
Year Assessed	27	28	29	30	31	32	33
Year Tax Revenues Collected	28	29	30	31	32	33	34

**TABLE 3 - PROSPER DEVELOPMENT ASSUMPTIONS**

	Quantity	Average SF	2012 Constuction Values <i>(Based on Building Valuation Data, International Code Council, 2012)</i>		2012 Market Values <i>(Residential, Provided by Developer)</i>		2012 "Appraised" or "Actual" Values			
<b>DEVELOPMENT BUILD-OUT</b>										
<b>RESIDENTIAL</b>										
	# of Units	SF Per Unit	Units/Acre	Persons/Unit	Per Sq.Ft.	Per Unit		Per Unit		
Low Density	1,107	3,500	2.00	2.60	\$111.00	\$346,951	<i>From Table 17</i>	\$346,951		
Medium Density	5,241	1,800	3.00	2.53	\$105.00	\$245,212	<i>From Table 17</i>	\$245,212		
High Density and Mixed-Use	2,453	900	12.00	2.00	\$99.00	\$156,737	<i>From Table 17</i>	\$156,737		
Total or Average	8,801	1,763	Med + High	2.36						
<b>NON-RESIDENTIAL</b>										
	# of Sq.Ft.	Average SF	Floor Area Ratio		Per Sq.Ft.	Per Sq.Ft.	2011 Actual Values Per Sq.Ft. of Building			
Office	1,526,175	40,000	0.30		\$100.00	\$100.00	Real Estate	PP %	Pers. Prop	Total
Office - Flex	1,486,650	30,000	0.36		\$65.00	\$90.00	\$100	10%	\$10	\$110
Retail - Community-Scale (Some Pads)	550,000	50,000	0.31		\$85.00	\$150.00	\$90	5%	\$5	\$95
Retail - Regional Scale (A Few Pads)	1,855,000	100,000	0.32		\$85.00	\$150.00	\$150	10%	\$15	\$165
Service	461,000	25,000	0.34		\$70.00	\$90.00	\$150	10%	\$15	\$165
Industrial & Warehouse/Storage	959,175	20,000	0.36		\$60.00	\$75.00	\$90	5%	\$5	\$95
Lodging	150,000	67,500	0.34		\$125.00	\$75.00	\$75	5%	\$4	\$79
Medical Campus	1,120,000	100,000	0.40		\$200.00	\$250.00	\$75	12%	\$9	\$84
Total	8,108,000						\$250	20%	\$50	\$300
<b>BUILT BY OTHERS</b>										
Education: K-12	527,000	100,000	0.13		\$129.00	\$0.00	Tax Exempt			
	8,635,000						\$0		\$0	\$0

Inflation Rate: Real Estate Values

0.00%

**Ratio of Assessed Value to Market Value:**

Residential	7.96%
Land and Nonresidential	29.00%

**EMPLOYMENT**

Type of Space	Per Square Feet	100% Occupancy	
		Employment	Vacancy Rate
Office	200	7,631	5.0%
Office - Flex	250	5,947	5.0%
Retail - Community Scale	500	1,100	5.0%
Retail - Regional Scale	500	3,710	5.0%
Service	500	922	5.0%
Industrial	500	1,918	5.0%
Lodging	450	333	0.0%
Medical Campus	300	3,733	5.0%
Education - K-12	1000	527	0.0%
TOTAL		25,821	

**LODGING INFORMATION**

SF Per Room:	500
Room Rate:	\$110
Vacancy Rate:	50.0%

**HOUSEHOLD INCOME CALCULATIONS**

House Price	\$200,000
Down payment	20%
Loan	\$160,000
Rate	6.0%
Years	30
Payments per Year	12
Total Payments	360
Monthly Payments	\$959
Estimated % of HH Income	25%
Estimated Gross HH Income	\$46,045
Ratio: HH Income / House Value	<b>23.0%</b>

**Mortgage Assumptions**

Down payment	20%
Rate	6.0%
Years	30
Payments / Year	12

<b>RESIDENT EXPENDITURES - Taxable Items</b>	<b>% Personal Income</b>	<b>% Capture Assumption</b>
<b>Convenience Goods:</b>		
Supermarket / Grocery (excludes tax exempt)	1.2%	
Specialty Food	0.1%	
Convenience Stores	0.1%	
Beer, Wine and Liquor	0.8%	
Health & Personal Care	<u>1.4%</u>	
Subtotal - Convenience Goods	3.6%	100%
<b>Shoppers Goods - General Merchandise</b>		
Department Stores	1.1%	
Discounters, Warehouse Clubs, Super Centers	5.5%	
Clothing & Accessories	2.1%	
Home Furnishings & Electronics	2.9%	
Miscellaneous Retail	<u>4.0%</u>	
Subtotal - Shoppers Goods	15.6%	75%
Eating & Drinking	5.2%	75%
Building Material & Garden	3.8%	75%
<b>TOTAL RETAIL</b>	<b>28.2%</b>	
<b>OTHER TAXABLE:</b>		
Utilities	1.9%	100%
Vehicles	0.6%	100%
Other Taxable Items	1.5%	75%
<b>GRAND TOTAL</b>	<b>32.2%</b>	

<b>RETAILERS</b>	<b>% of Square Feet</b>	<b>Vacancy Factor</b>	<b>% Capture Assumption</b>	<b>Estimated Taxable Sales PSF</b>	
<b>Community Retailers</b>					
Convenience Goods	75.0%	5.0%	100%	\$120	<i>Note: Groceries are not taxable</i>
Shopper Goods	15.0%	5.0%	75%	\$300	
Eating and Drinking	10.0%	5.0%	75%	\$325	
Building Material & Garden	<u>0.0%</u>	n/a	n/a	n/a	
Total	100.0%				
<b>Regional Retailers</b>					
Convenience Goods	5.0%	5.0%	100%	\$300	<i>Assumes no grocery</i>
Shopper Goods	65.0%	0.0%	75%	\$275	
Eating and Drinking	10.0%	5.0%	75%	\$325	
Building Material & Garden	<u>20.0%</u>	0.0%	100%	\$200	
Total	100.0%				

<b>RETAIL SALES FROM OFFICE &amp; INDUSTRIAL</b>	<i>This data is from the City of Aurora (2006)</i>		<b>Citywide SF</b>	<b>Taxable Sales PSF</b>	<b>Source of Sales Data</b>
Retail Sales from Office and Industrial	\$144,933,333	\$144,933,333	48,672,054	\$2.98	EPS
Other Taxable Sales from Office & Industrial	\$676,400,000	\$676,400,000	48,672,054	\$13.90	EPS
	<b>Capture Rate</b>				
Retail Sales from Office and Industrial	100%				
Other Taxable Sales from Office & Industrial	0%				

TABLE 4 - PROSPER		EQUIVALENT DWELLING UNIT (EDU) CALCULATIONS																		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
<b>Cumulative Occupied Housing Units</b>	<b>AN EDU</b>	0	57	152	288	481	670	875	1,119	1,423	1,769	2,099	2,402	2,581	2,803	3,016	3,272	3,515	3,848	4,076
Persons Per DU	Uninc County	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61
<b>Cumulative Employees</b>	See Table 2																			
Office		0	0	76	255	402	577	636	803	944	1249	1446	1643	1781	2022	2091	2288	2416	2613	2990
Office - Flex		0	0	0	140	254	506	601	744	937	1240	1494	1749	1908	2188	2267	2427	2507	2666	2786
Retail - Community Scale		0	0	0	0	0	0	0	0	0	95	190	285	380	380	475	475	570	665	665
Retail - Regional Scale		0	0	95	190	352	447	637	637	969	1064	1254	1444	1539	1682	1777	1777	1777	1777	1824
Service		0	0	46	91	137	137	137	162	162	188	188	188	188	255	255	335	359	383	407
Industrial		0	0	0	41	70	139	163	199	255	346	424	503	558	655	682	737	765	820	861
Lodging		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Medical Campus		0	0	0	0	0	0	158	380	697	1013	1013	1330	1330	1647	1647	1963	1963	1963	1963
Education - K-12 (Tax Exempt)		0	0	77	77	77	77	77	77	155	155	155	155	155	155	155	155	232	372	372
<b>Total</b>		0	0	294	794	1,292	1,883	2,409	3,002	4,119	5,350	6,164	7,297	7,839	8,984	9,349	10,157	10,589	11,259	11,868
Ratio: Employment Resident Equivalent	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%
# of Employment Resident Equivalents		0	0	103	278	452	659	843	1,051	1,442	1,873	2,157	2,554	2,744	3,144	3,272	3,555	3,706	3,941	4,154
<b>Employment Resident / Persons Per DU</b>	<b>AN EDU</b>	0	0	39	106	173	253	323	403	552	717	827	979	1,051	1,205	1,254	1,362	1,420	1,510	1,591
<b>TOTAL PROSPER EDUs</b>		0	57	191	394	654	923	1,198	1,522	1,975	2,486	2,926	3,381	3,632	4,008	4,270	4,634	4,935	5,358	5,667

TABLE 4 - PROSPER													
	20	21	22	23	24	25	26	27	28	29	30	31	32
<b>Cumulative Occupied Housing Units</b>	4,451	4,740	5,096	5,330	5,567	5,767	6,028	6,353	6,774	7,247	7,874	8,361	8,361
Persons Per DU	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61
<b>Cumulative Employees</b>													
Office	3206	3477	3477	3747	3948	4204	4888	5335	6096	6371	6871	7249	7249
Office - Flex	2946	3273	3273	3599	3848	4008	4376	4536	4945	5104	5450	5649	5649
Retail - Community Scale	808	808	808	903	903	1045	1045	1045	1045	1045	1045	1045	1045
Retail - Regional Scale	1919	2014	2204	2299	2442	2632	2727	2822	3059	3059	3249	3525	3525
Service	438	438	438	438	438	438	438	466	583	756	816	876	876
Industrial	917	1025	1025	1133	1213	1269	1390	1445	1581	1636	1754	1822	1822
Lodging	0	333	333	333	333	333	333	333	333	333	333	333	333
Medical Campus	2280	2280	2676	2676	3072	3072	3547	3547	3547	3547	3547	3547	3547
Education - K-12 (Tax Exempt)	372	372	372	372	450	450	450	527	527	527	527	527	527
<b>Total</b>	<b>12,886</b>	<b>14,020</b>	<b>14,606</b>	<b>15,500</b>	<b>16,647</b>	<b>17,451</b>	<b>19,194</b>	<b>20,056</b>	<b>21,716</b>	<b>22,378</b>	<b>23,592</b>	<b>24,573</b>	<b>24,573</b>
Ratio: Employment Resident Equivalent	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%
# of Employment Resident Equivalents	4,510	4,907	5,112	5,425	5,826	6,108	6,718	7,020	7,601	7,832	8,257	8,601	8,601
<b>Employment Resident / Persons Per DU</b>	<b>1,728</b>	<b>1,880</b>	<b>1,959</b>	<b>2,079</b>	<b>2,232</b>	<b>2,340</b>	<b>2,574</b>	<b>2,690</b>	<b>2,912</b>	<b>3,001</b>	<b>3,164</b>	<b>3,295</b>	<b>3,295</b>
<b>TOTAL PROSPER EDUs</b>	<b>6,179</b>	<b>6,620</b>	<b>7,055</b>	<b>7,409</b>	<b>7,799</b>	<b>8,107</b>	<b>8,602</b>	<b>9,043</b>	<b>9,686</b>	<b>10,248</b>	<b>11,038</b>	<b>11,656</b>	<b>11,656</b>

<b>TABLE 5 - PROSPER</b>		<b>REGISTERED MOTOR VEHICLES</b>															
<b>Construction Year</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	
Occupied Housing Units	0	57	152	288	481	670	875	1,119	1,423	1,769	2,099	2,402	2,581	2,803	3,016	3,272	
Registered Motor Vehicles Per Unit	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	
Registered Motor Vehicles	0	121	324	613	1,025	1,427	1,864	2,383	3,031	3,768	4,471	5,116	5,498	5,970	6,424	6,969	

<b>TABLE 5 - PROSPER</b>																
<b>Construction Year</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>	<b>31</b>	<b>32</b>
Occupied Housing Units	3,515	3,848	4,076	4,451	4,740	5,096	5,330	5,567	5,767	6,028	6,353	6,774	7,247	7,874	8,361	8,361
Registered Motor Vehicles Per Unit	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13	2.13
Registered Motor Vehicles	7,487	8,196	8,682	9,481	10,096	10,854	11,353	11,858	12,284	12,840	13,532	14,429	15,436	16,772	17,809	17,809

**TABLE 6: COUNTY DEMOGRAPHICS, EMPLOYMENT, EQUIVALENT DWELLING UNIT (EDU) & VEHICLE CALCULATIONS AND SUPPORTING DATA**

**Countywide Calculations for 2012**

Countywide Population	590,675	
Occupied Housing Units	<b>231,331</b>	An EDU
Persons Per Housing Unit	2.53	
Employees (excluding self-employed)	282,415	
Ratio: Employment Resident Equivalent	35%	
# of Employment Resident Equivalents	98,845	
<b>Employment Resident / Persons Per DU</b>	<b>39,069</b>	An EDU
<b>Countywide Equivalent Dwelling Units (EDU)</b>	<b>270,401</b>	Total EDUs - Countywide

**Unincorporated Areas Calculations for 2012**

Unincorporated Areas Population	86,389	
Occupied Housing Units	<b>32,859</b>	An EDU
Persons Per Housing Unit	2.61	
Unincorporated Areas Employees (excl. self-employed)	<b>48,266</b>	
Ratio: Employment Resident Equivalent	35%	
# of Employment Resident Equivalents	16,893	
<b>Employment Resident / Persons Per DU</b>	<b>6,472</b>	An EDU
<b>Unincorporated Areas - Equivalent Dwelling Units</b>	<b>39,332</b>	Total EDUs - Unincorporated Areas

Sources: State Demographer's Office, US Bureau of Labor Statistics, Arapahoe County Transportation Plan

**UNDERLYING SUPPORTING DOCUMENTATION:**

Source	Month	2005	2006	2007	2008	2009	2010	2011	2012
<b>Countywide Data:</b>									
Countywide Population	DRCOG	531,741							
Countywide Households	DRCOG	209,275							
Countywide Population	State Demographer's Office	July	533,091	541,091	551,733	556,246	566,480	575,022	582,106
Countywide Population in Households	State Demographer's Office	July	526,839	535,428	545,672			570,102	
Countywide Population	US Census Bureau	April			545,089			572,003	
Derived - Ratio of Household Population / Total Population			98.8%	99.0%	98.9%	99.0%	99.0%	99.1%	99.1%
Derived Household Population									585,621
<b>Unincorporated Areas:</b>									
Unincorporated Areas Population	State Demographer's Office						84,100	85,136	<b>86,389</b>
Ratio: Unincorporated Areas / Countywide Population							14.63%	14.63%	14.63%
<b>HOUSEHOLDS</b>									
<b>Countywide Data:</b>									
Countywide Households	US Census Bureau	April					218,909		
Countywide Households	DRCOG		209,275						
Countywide Households	State Demographer's Office	July	207,926	211,295	215,389	220,071	<b>223,989</b>	225,336	228,112
Ratio: Households / Population			39.0%	39.0%	39.0%	39.6%	39.5%	39.2%	39.2%
<b>Unincorporated Areas:</b>									
Unincorporated Areas Households	State Demographer's Office						31,948	32,342	<b>32,818</b>
Ratio: Unincorporated Areas Households / Countywide Households							14.2%	14.2%	14.2%

**HOUSING UNITS**

		2005	2006	2007	2008	2009	2010	2011	2012
Countywide Data:									
Countywide Housing Units	US Census Bureau						238,301		
Countywide Housing Units	DRCOG								
Countywide Housing Units	STATE	222,327	226,423	229,752			238,904		
Vacant, Countywide	STATE	14,401	15,128	14,363			13,703		
Occupied, Countywide, Calculated	State Demographer's Office	207,926	211,295	215,389			225,201		
Ratio: Housing Units / Population		41.7%	41.8%	41.6%	41.6%	41.6%	41.55%	41.55%	41.55%
Forecasted Housing Units					231,631	235,893		241,847	245,407
Ratio: Occupied to Total Housing Units		93.5%	93.3%	93.7%	93.7%	93.7%	94.3%	94.3%	94.3%
Forecasted Occupied Housing Units					217,039	221,032	225,201	227,975	<b>231,331</b>
Unincorporated Areas:									
Unincorporated Areas - Total Housing Units							33,672	34,087	34,589
Ratio: Unincorporated Housing Units / Unincorporated Population							40.0%	40.0%	40.0%
Unincorporated Areas - Total Occupied Housing Units							31,946	32,382	<b>32,859</b>
Ratio: Unincorporated Occupied / Unincorporated Total							95.0%	95.0%	95.0%

**AVERAGE PERSONS PER HOUSEHOLD**

Countywide	State Demographer's Office	2.53	2.53	2.53	0.00	0	2.53	2.53	<b>2.53</b>
Unincorporated Areas	State Demographer's Office						2.61	2.61	<b>2.61</b>
Countywide - Owner -Occupied	US Census - American Community Survey (2006 - 2010)								<b>2.58</b>
Countywide - Renter Occupied	US Census - American Community Survey (2006 - 2010)								<b>2.34</b>

**REGISTERED MOTOR VEHICLES**

CO Dept. of Revenue Annual Report		420,509	468,916	487,666	492,115	497,036	479,273	485,177	<b>492,320</b>
-----------------------------------	--	---------	---------	---------	---------	---------	---------	---------	----------------

Average % Increase			11.5%	4.0%	0.9%	1.0%	-3.6%	1.2%	1.5%
--------------------	--	--	-------	------	------	------	-------	------	------

**MOTOR VEHICLES PER HOUSEHOLD**

This includes motor vehicles registered to businesses.						2.22	2.13		<b>2.13</b>
--	--	--	--	--	--	------	------	--	-------------

**CENTERLANE MILES, Uninc. Arapahoe  
LANE MILES, Uninc. Arapahoe**

CDOT - Roadway Statistics, Under County jurisdiction, no CO highways, no municipal roads							541.64		541.64
CDOT - Roadway Statistics							1568.84		<b>1568.84</b>

**EMPLOYMENT**

Countywide Employment	Quarterly Census of Employment and Wages, US Bureau of Labor Statistics	271,270	276,092	281,876	282,659	271,602	270,339	276,311	<b>282,415</b>
	Excludes self-employed, armed forces, some ag				1st Nine Months				<i>Based on increase 2010 to 2011</i>
	Includes government	239,684	243,955	249,112	0				

Unincorporated Area Employment	Arapahoe County Transportation Plan	45,353							<b>48,266</b>
Countywide Employment	Arapahoe County Transportation Plan	265,370							
Ratio: Unincorporated to Total Employment	Calculated from Transportation Plan	17.1%							17.1%

**COUNTYWIDE ACTUAL VALUE in \$000  
COUNTYWIDE ASSESSED VALUE in \$000**

Assessor's Web Site									<b>\$60,010,543</b>
Arapahoe County Abstract of Assessment									<b>\$7,383,855</b>

**CONSERVATION TRUST FUND CALCULATIONS:**

Districted Population							46135	0.5	23,068
Non-Districted Population							37965		37,965
Total									<b>61,033</b>

**TABLE 7 - SUMMARY**

**COUNTY REVENUES & EXPENDITURES BY FUND ATTRIBUTABLE TO PROSPER**

Construction Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
<b>GENERAL FUND</b>																
Revenues - General Fund	\$0	\$12,369	\$53,012	\$159,863	\$317,180	\$494,870	\$674,437	\$909,786	\$1,172,503	\$1,588,910	\$1,987,208	\$2,291,477	\$2,654,606	\$2,862,533	\$3,189,215	\$3,381,199
Expenditures (Excluding Planning & Building)	(\$126)	(\$22,786)	(\$75,294)	(\$154,545)	(\$256,160)	(\$360,855)	(\$469,132)	(\$596,200)	(\$774,037)	(\$973,465)	(\$1,145,243)	(\$1,323,237)	(\$1,421,576)	(\$1,568,053)	(\$1,671,088)	(\$1,813,398)
Net Revenues or (Net Costs)	(\$126)	(\$10,417)	(\$22,282)	\$5,318	\$61,021	\$134,015	\$205,306	\$313,587	\$398,466	\$615,445	\$841,965	\$968,239	\$1,233,031	\$1,294,480	\$1,518,127	\$1,567,801
<b>ONE-TIME DEVELOPMENT FEES</b>																
Revenues	\$308,034	\$395,169	\$508,728	\$798,311	\$645,299	\$676,782	\$938,608	\$1,112,338	\$1,176,432	\$1,162,195	\$1,085,241	\$579,349	\$998,651	\$648,275	\$888,693	\$970,553
Expenditures (Planning and Building)	(\$308,034)	(\$395,169)	(\$508,728)	(\$798,311)	(\$645,299)	(\$676,782)	(\$938,608)	(\$1,112,338)	(\$1,176,432)	(\$1,162,195)	(\$1,085,241)	(\$579,349)	(\$998,651)	(\$648,275)	(\$888,693)	(\$970,553)
Net Revenues or (Net Costs)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>ARAPAHOE LAW ENFORCEMENT AUTHORITY FUND</b>																
Revenues	\$0	\$3,197	\$14,970	\$49,453	\$100,054	\$158,627	\$216,605	\$295,470	\$379,880	\$519,780	\$652,460	\$752,424	\$876,418	\$944,880	\$1,055,236	\$1,118,533
Expenditures	\$0	(\$8,170)	(\$27,378)	(\$56,476)	(\$93,744)	(\$132,303)	(\$171,721)	(\$218,163)	(\$283,097)	(\$356,343)	(\$419,413)	(\$484,633)	(\$520,611)	(\$574,507)	(\$612,062)	(\$664,238)
Net Revenues or (Net Costs)	\$0	(\$4,973)	(\$12,408)	(\$7,023)	\$6,310	\$26,324	\$44,883	\$77,306	\$96,783	\$163,437	\$233,047	\$267,792	\$355,807	\$370,373	\$443,174	\$454,296
<b>ROAD &amp; BRIDGE FUND</b>																
Revenues	\$0	\$130,056	\$218,060	\$286,585	\$290,666	\$400,796	\$458,260	\$499,145	\$515,742	\$661,799	\$749,191	\$757,185	\$840,200	\$857,125	\$945,128	\$950,210
Expenditures	\$0	(\$164,039)	(\$274,722)	(\$359,019)	(\$360,751)	(\$495,505)	(\$563,912)	(\$609,614)	(\$625,047)	(\$798,520)	(\$898,192)	(\$901,222)	(\$995,036)	(\$1,012,047)	(\$1,113,548)	(\$1,115,973)
Net Revenues or (Net Costs)	\$0	(\$33,983)	(\$56,663)	(\$72,434)	(\$70,085)	(\$94,709)	(\$105,652)	(\$110,469)	(\$109,305)	(\$136,721)	(\$149,001)	(\$144,037)	(\$154,837)	(\$154,922)	(\$168,420)	(\$165,762)
<b>SOCIAL SERVICES FUND</b>																
Revenues	\$0	\$928	\$4,382	\$15,004	\$30,757	\$49,045	\$67,159	\$91,938	\$118,070	\$162,085	\$204,051	\$235,227	\$274,849	\$295,929	\$331,160	\$350,719
Expenditures	\$0	(\$928)	(\$4,382)	(\$15,004)	(\$30,757)	(\$49,045)	(\$67,159)	(\$91,938)	(\$118,070)	(\$162,085)	(\$204,051)	(\$235,227)	(\$274,849)	(\$295,929)	(\$331,160)	(\$350,719)
Net Revenues or (Net Costs)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>DEVELOPMENTAL DISABILITIES FUND</b>																
Revenues	\$0	\$456	\$2,393	\$8,671	\$17,999	\$28,901	\$39,661	\$54,457	\$69,964	\$96,424	\$121,652	\$140,276	\$164,365	\$176,923	\$198,234	\$209,782
Expenditures	\$0	(\$456)	(\$2,393)	(\$8,671)	(\$17,999)	(\$28,901)	(\$39,661)	(\$54,457)	(\$69,964)	(\$96,424)	(\$121,652)	(\$140,276)	(\$164,365)	(\$176,923)	(\$198,234)	(\$209,782)
Net Revenues or (Net Costs)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>CAPITAL EXPENDITURES FUND</b>																
Revenues	\$0	\$360	\$1,698	\$5,811	\$11,910	\$18,991	\$26,005	\$35,598	\$45,716	\$62,757	\$79,003	\$91,074	\$106,411	\$114,573	\$128,211	\$135,785
Expenditures	\$0	(\$360)	(\$1,698)	(\$5,811)	(\$11,910)	(\$18,991)	(\$26,005)	(\$35,598)	(\$45,716)	(\$62,757)	(\$79,003)	(\$91,074)	(\$106,411)	(\$114,573)	(\$128,211)	(\$135,785)
Net Revenues or (Net Costs)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>OPEN SPACE FUND</b>																
Revenues	\$6,334	\$20,504	\$32,775	\$47,858	\$64,565	\$77,471	\$100,236	\$121,964	\$155,500	\$159,499	\$194,500	\$193,675	\$225,797	\$225,987	\$256,008	\$251,222
Expenditures	(\$6,334)	(\$20,504)	(\$32,775)	(\$47,858)	(\$64,565)	(\$77,471)	(\$100,236)	(\$121,964)	(\$155,500)	(\$159,499)	(\$194,500)	(\$193,675)	(\$225,797)	(\$225,987)	(\$256,008)	(\$251,222)
Net Revenues or (Net Costs)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>CONSERVATION TRUST FUND</b>																
Revenues	\$0	\$1,153	\$3,068	\$5,819	\$9,708	\$13,529	\$17,667	\$22,581	\$28,701	\$35,665	\$42,297	\$48,402	\$52,020	\$56,475	\$60,778	\$65,926
Expenditures	\$0	(\$1,153)	(\$3,068)	(\$5,819)	(\$9,708)	(\$13,529)	(\$17,667)	(\$22,581)	(\$28,701)	(\$35,665)	(\$42,297)	(\$48,402)	(\$52,020)	(\$56,475)	(\$60,778)	(\$65,926)
Net Revenues or (Net Costs)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>GRAND TOTALS</b>																
Revenues Less Expenditures All Funds In Fiscal Model	(\$126)	(\$49,374)	(\$91,353)	(\$74,138)	(\$2,754)	\$65,630	\$144,537	\$280,423	\$385,944	\$642,161	\$926,010	\$1,091,994	\$1,434,000	\$1,509,930	\$1,792,882	\$1,856,334
PLUS Revenues available for Capital Improvements	\$0	\$360	\$1,698	\$5,811	\$11,910	\$18,991	\$26,005	\$35,598	\$45,716	\$62,757	\$79,003	\$91,074	\$106,411	\$114,573	\$128,211	\$135,785
PLUS Revenues Available for County OpenSpace Purchases	\$6,334	\$20,504	\$32,775	\$47,858	\$64,565	\$77,471	\$100,236	\$121,964	\$155,500	\$159,499	\$194,500	\$193,675	\$225,797	\$225,987	\$256,008	\$251,222
PLUS Revenues Available from Conservation Trust Fund	\$0	\$1,153	\$3,068	\$5,819	\$9,708	\$13,529	\$17,667	\$22,581	\$28,701	\$35,665	\$42,297	\$48,402	\$52,020	\$56,475	\$60,778	\$65,926
GRAND TOTAL - Net Revenues Available to County	\$6,208	(\$27,357)	(\$53,812)	(\$14,651)	\$83,428	\$175,621	\$288,444	\$460,566	\$615,862	\$900,081	\$1,241,811	\$1,425,145	\$1,818,229	\$1,906,965	\$2,237,879	\$2,309,267

**TABLE 7 - SUMMARY**

Construction Year	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
<b>GENERAL FUND</b>																
Revenues - General Fund	\$3,654,205	\$3,836,799	\$4,026,286	\$4,245,344	\$4,624,895	\$4,922,362	\$5,249,199	\$5,500,808	\$5,842,409	\$6,121,822	\$6,554,540	\$6,830,116	\$7,275,129	\$7,530,668	\$7,915,089	\$8,148,995
Expenditures (Excluding Planning & Building)	<u>(\$1,931,021)</u>	<u>(\$2,094,727)</u>	<u>(\$2,214,979)</u>	<u>(\$2,415,137)</u>	<u>(\$2,585,846)</u>	<u>(\$2,757,031)</u>	<u>(\$2,894,274)</u>	<u>(\$3,046,177)</u>	<u>(\$3,166,381)</u>	<u>(\$3,357,994)</u>	<u>(\$3,529,124)</u>	<u>(\$3,777,219)</u>	<u>(\$3,995,762)</u>	<u>(\$4,301,427)</u>	<u>(\$4,539,815)</u>	<u>(\$4,539,815)</u>
Net Revenues or (Net Costs)	\$1,723,184	\$1,742,071	\$1,811,307	\$1,830,207	\$2,039,049	\$2,165,331	\$2,354,925	\$2,454,631	\$2,676,028	\$2,763,828	\$3,025,416	\$3,052,897	\$3,229,368	\$3,229,241	\$3,375,274	\$3,609,179
<b>ONE-TIME DEVELOPMENT FEES</b>																
Revenues	\$1,009,530	\$661,737	\$1,319,208	\$968,779	\$1,039,043	\$875,552	\$878,740	\$624,455	\$1,169,675	\$1,033,251	\$1,335,774	\$1,463,971	\$1,691,281	\$1,264,060	\$0	\$0
Expenditures (Planning and Building)	<u>(\$1,009,530)</u>	<u>(\$661,737)</u>	<u>(\$1,319,208)</u>	<u>(\$968,779)</u>	<u>(\$1,039,043)</u>	<u>(\$875,552)</u>	<u>(\$878,740)</u>	<u>(\$624,455)</u>	<u>(\$1,169,675)</u>	<u>(\$1,033,251)</u>	<u>(\$1,335,774)</u>	<u>(\$1,463,971)</u>	<u>(\$1,691,281)</u>	<u>(\$1,264,060)</u>	\$0	\$0
Net Revenues or (Net Costs)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>ARAPAHOE LAW ENFORCEMENT AUTH</b>																
Revenues	\$1,210,127	\$1,267,930	\$1,330,288	\$1,399,201	\$1,527,623	\$1,624,460	\$1,734,615	\$1,818,261	\$1,933,199	\$2,026,984	\$2,173,525	\$2,261,265	\$2,392,192	\$2,486,669	\$2,610,972	\$2,693,795
Expenditures	<u>(\$707,383)</u>	<u>(\$768,016)</u>	<u>(\$812,308)</u>	<u>(\$885,698)</u>	<u>(\$948,911)</u>	<u>(\$1,011,264)</u>	<u>(\$1,067,006)</u>	<u>(\$1,117,909)</u>	<u>(\$1,162,057)</u>	<u>(\$1,233,011)</u>	<u>(\$1,296,224)</u>	<u>(\$1,388,391)</u>	<u>(\$1,468,948)</u>	<u>(\$1,582,187)</u>	<u>(\$1,670,771)</u>	<u>(\$1,670,771)</u>
Net Revenues or (Net Costs)	\$502,744	\$499,914	\$517,980	\$513,503	\$578,712	\$613,196	\$672,609	\$700,352	\$771,142	\$793,973	\$877,302	\$872,874	\$923,244	\$904,482	\$940,201	\$1,023,024
<b>ROAD &amp; BRIDGE FUND</b>																
Revenues	\$957,615	\$1,081,320	\$1,156,865	\$1,162,426	\$1,250,680	\$1,320,320	\$1,329,134	\$1,353,817	\$1,363,010	\$1,370,390	\$1,404,857	\$1,411,851	\$1,440,596	\$1,448,311	\$1,458,380	\$1,465,022
Expenditures	<u>(\$1,117,977)</u>	<u>(\$1,270,873)</u>	<u>(\$1,361,868)</u>	<u>(\$1,365,278)</u>	<u>(\$1,466,565)</u>	<u>(\$1,547,378)</u>	<u>(\$1,549,735)</u>	<u>(\$1,575,074)</u>	<u>(\$1,577,125)</u>	<u>(\$1,580,122)</u>	<u>(\$1,611,966)</u>	<u>(\$1,616,248)</u>	<u>(\$1,642,821)</u>	<u>(\$1,648,082)</u>	<u>(\$1,652,198)</u>	<u>(\$1,652,198)</u>
Net Revenues or (Net Costs)	(\$160,362)	(\$189,553)	(\$205,003)	(\$202,851)	(\$215,886)	(\$227,057)	(\$220,601)	(\$221,257)	(\$214,114)	(\$210,032)	(\$207,108)	(\$204,397)	(\$202,224)	(\$199,771)	(\$193,818)	(\$187,176)
<b>SOCIAL SERVICES FUND</b>																
Revenues	\$379,747	\$397,456	\$416,895	\$437,908	\$478,364	\$508,774	\$543,555	\$569,550	\$606,010	\$634,861	\$681,315	\$707,946	\$749,164	\$777,872	\$816,705	\$843,636
Expenditures	<u>(\$379,747)</u>	<u>(\$397,456)</u>	<u>(\$416,895)</u>	<u>(\$437,908)</u>	<u>(\$478,364)</u>	<u>(\$508,774)</u>	<u>(\$543,555)</u>	<u>(\$569,550)</u>	<u>(\$606,010)</u>	<u>(\$634,861)</u>	<u>(\$681,315)</u>	<u>(\$707,946)</u>	<u>(\$749,164)</u>	<u>(\$777,872)</u>	<u>(\$816,705)</u>	<u>(\$843,636)</u>
Net Revenues or (Net Costs)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>DEVELOPMENTAL DISABILITIES FUND</b>																
Revenues	\$227,202	\$237,451	\$248,982	\$261,183	\$285,564	\$303,606	\$324,595	\$340,155	\$362,251	\$379,525	\$407,534	\$423,109	\$447,583	\$464,017	\$486,989	\$503,614
Expenditures	<u>(\$227,202)</u>	<u>(\$237,451)</u>	<u>(\$248,982)</u>	<u>(\$261,183)</u>	<u>(\$285,564)</u>	<u>(\$303,606)</u>	<u>(\$324,595)</u>	<u>(\$340,155)</u>	<u>(\$362,251)</u>	<u>(\$379,525)</u>	<u>(\$407,534)</u>	<u>(\$423,109)</u>	<u>(\$447,583)</u>	<u>(\$464,017)</u>	<u>(\$486,989)</u>	<u>(\$503,614)</u>
Net Revenues or (Net Costs)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>CAPITAL EXPENDITURES FUND</b>																
Revenues	\$147,023	\$153,881	\$161,408	\$169,545	\$185,207	\$196,982	\$210,447	\$220,511	\$234,625	\$245,795	\$263,778	\$274,091	\$290,050	\$301,169	\$316,206	\$326,629
Expenditures	<u>(\$147,023)</u>	<u>(\$153,881)</u>	<u>(\$161,408)</u>	<u>(\$169,545)</u>	<u>(\$185,207)</u>	<u>(\$196,982)</u>	<u>(\$210,447)</u>	<u>(\$220,511)</u>	<u>(\$234,625)</u>	<u>(\$245,795)</u>	<u>(\$263,778)</u>	<u>(\$274,091)</u>	<u>(\$290,050)</u>	<u>(\$301,169)</u>	<u>(\$316,206)</u>	<u>(\$326,629)</u>
Net Revenues or (Net Costs)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>OPEN SPACE FUND</b>																
Revenues	\$266,724	\$256,337	\$286,268	\$304,193	\$315,840	\$321,089	\$351,070	\$348,757	\$399,902	\$404,063	\$427,766	\$444,230	\$462,911	\$466,847	\$445,227	\$445,227
Expenditures	<u>(\$266,724)</u>	<u>(\$256,337)</u>	<u>(\$286,268)</u>	<u>(\$304,193)</u>	<u>(\$315,840)</u>	<u>(\$321,089)</u>	<u>(\$351,070)</u>	<u>(\$348,757)</u>	<u>(\$399,902)</u>	<u>(\$404,063)</u>	<u>(\$427,766)</u>	<u>(\$444,230)</u>	<u>(\$462,911)</u>	<u>(\$466,847)</u>	<u>(\$445,227)</u>	<u>(\$445,227)</u>
Net Revenues or (Net Costs)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>CONSERVATION TRUST FUND</b>																
Revenues	\$70,832	\$77,518	\$82,100	\$89,637	\$95,441	\$102,601	\$107,319	\$112,075	\$116,084	\$121,345	\$127,902	\$136,389	\$145,938	\$158,593	\$168,406	\$168,406
Expenditures	<u>(\$70,832)</u>	<u>(\$77,518)</u>	<u>(\$82,100)</u>	<u>(\$89,637)</u>	<u>(\$95,441)</u>	<u>(\$102,601)</u>	<u>(\$107,319)</u>	<u>(\$112,075)</u>	<u>(\$116,084)</u>	<u>(\$121,345)</u>	<u>(\$127,902)</u>	<u>(\$136,389)</u>	<u>(\$145,938)</u>	<u>(\$158,593)</u>	<u>(\$168,406)</u>	<u>(\$168,406)</u>
Net Revenues or (Net Costs)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>GRAND TOTALS</b>																
Revenues Less Expenditures All Funds In Fisc	\$2,065,566	\$2,052,432	\$2,124,284	\$2,140,859	\$2,401,875	\$2,551,470	\$2,806,933	\$2,933,726	\$3,233,055	\$3,347,769	\$3,695,609	\$3,721,374	\$3,950,388	\$3,933,953	\$4,121,657	\$4,445,027
PLUS Revenues available for Capital Improve	\$147,023	\$153,881	\$161,408	\$169,545	\$185,207	\$196,982	\$210,447	\$220,511	\$234,625	\$245,795	\$263,778	\$274,091	\$290,050	\$301,169	\$316,206	\$326,629
PLUS Revenues Available for County OpenSp	\$266,724	\$256,337	\$286,268	\$304,193	\$315,840	\$321,089	\$351,070	\$348,757	\$399,902	\$404,063	\$427,766	\$444,230	\$462,911	\$466,847	\$445,227	\$445,227
PLUS Revenues Available from Conservation	<u>\$70,832</u>	<u>\$77,518</u>	<u>\$82,100</u>	<u>\$89,637</u>	<u>\$95,441</u>	<u>\$102,601</u>	<u>\$107,319</u>	<u>\$112,075</u>	<u>\$116,084</u>	<u>\$121,345</u>	<u>\$127,902</u>	<u>\$136,389</u>	<u>\$145,938</u>	<u>\$158,593</u>	<u>\$168,406</u>	<u>\$168,406</u>
GRAND TOTAL - Net Revenues Available to C	\$2,550,145	\$2,540,167	\$2,654,060	\$2,704,234	\$2,998,364	\$3,172,142	\$3,475,769	\$3,615,068	\$3,983,666	\$4,118,973	\$4,515,055	\$4,576,085	\$4,849,288	\$4,860,562	\$5,051,496	\$5,385,290

TABLE 8: PROSPER		COUNTY REVENUES											
Construction Year	1	2	3	4	5	6	7	8	9	10	11	12	
Revenue Inflation Rate	0.0%	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
<b>PROSPER INFORMATION</b>		<b>USED IN REVENUE CALCULATIONS</b>											
Annual Acres Developed (Res + Non-Res)	21.67	57.60	65.81	80.29	79.98	80.22	89.38	137.85	139.97	125.39	131.21	74.12	
Annual Acres Clustered in 3-Year Increments	145.08			240.49			367.20			330.72			
Plat Pages Per Submittal	25			25			25			25			
Households = Occupied Housing Units	-	57	152	288	481	670	875	1,119	1,423	1,769	2,099	2,402	
Population	-	153	407	772	1,288	1,795	2,344	2,996	3,808	4,732	5,612	6,422	
Jobs	-	294	794	1,292	1,883	2,409	3,002	4,119	5,350	6,164	7,297	8,297	
EDUs	-	57	191	394	654	923	1,198	1,522	1,975	2,486	2,926	3,381	
Motor Vehicles	-	121	324	613	1,025	1,427	1,864	2,383	3,031	3,768	4,471	5,116	
Assessed Value w/ Inflation	\$0	\$456,173	\$2,393,053	\$8,671,239	\$17,998,791	\$28,900,710	\$39,661,045	\$54,457,061	\$69,963,945	\$96,424,318	\$121,652,222	\$140,275,622	
Assessed Values / \$1000 (With Inflation)	\$0	\$456	\$2,393	\$8,671	\$17,999	\$28,901	\$39,661	\$54,457	\$69,964	\$96,424	\$121,652	\$140,276	
Actual Values (with inflation)	\$0	\$1,573,010	\$19,664,368	\$60,949,165	\$121,358,530	\$196,314,428	\$270,513,366	\$359,534,662	\$457,733,259	\$605,080,592	\$755,932,060	\$879,925,894	
Actual Values / \$1000 (with inflation)	\$0	\$1,573	\$19,664	\$60,949	\$121,359	\$196,314	\$270,513	\$359,535	\$457,733	\$605,081	\$755,932	\$879,926	
Taxable Sales /\$1,000 (Method B - Attributable Share)	\$0	\$882	\$10,507	\$20,975	\$38,541	\$49,179	\$69,713	\$70,603	\$106,342	\$123,484	\$150,427	\$177,326	
<b>2012 Property Taxes Received by Arapahoe County</b>													
County General Fund	13.270	13.270	13.270	13.270	13.270	13.270	13.270	13.270	13.270	13.270	13.270	13.270	
County Road and Bridge Fund (at 50%)	0.3995	0.3995	0.3995	0.3995	0.3995	0.3995	0.3995	0.3995	0.3995	0.3995	0.3995	0.3995	
Social Services Fund	1.620	1.620	1.620	1.620	1.620	1.620	1.620	1.620	1.620	1.620	1.620	1.620	
Capital Expenditures	0.627	0.627	0.627	0.627	0.627	0.627	0.627	0.627	0.627	0.627	0.627	0.627	
Developmental Disabilities	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
Arapahoe Law Enforcement Authority	4.982	4.982	4.982	4.982	4.982	4.982	4.982	4.982	4.982	4.982	4.982	4.982	
<b>TOTAL APPLIED</b>	<b>21.899</b>	<b>21.899</b>	<b>21.899</b>	<b>21.899</b>	<b>21.899</b>	<b>21.899</b>	<b>21.899</b>	<b>21.899</b>	<b>21.899</b>	<b>21.899</b>	<b>21.899</b>	<b>21.899</b>	
Registered Motor Vehicles	Table 5	0	121	324	613	1,025	1,427	1,864	2,383	3,031	3,768	4,471	
Cumulative Lane Miles Complete	Table 2	0.000	25.836	43.168	56.262	56.262	77.252	87.762	94.636	96.596	123.444	138.716	
<b>ONE-TIME FEES &amp; CHARGES- APPLIED IN YEAR OF CONSTRUCTION</b>													
Building Permit & Plan Review Fee	\$166,350	\$395,169	\$508,728	\$645,655	\$645,299	\$676,782	\$771,380	\$1,112,338	\$1,176,432	\$999,162	\$1,085,241	\$579,349	
Drainage Master Plan - Engineering	\$16,684	\$0	\$0	\$27,656	\$0	\$0	\$42,228	\$0	\$0	\$38,033	\$0	\$0	
Prelimin. Development Plan - Planning	\$27,500			\$27,500			\$27,500			\$27,500		\$0	
Prelimin. Plat - Planning	\$27,500			\$27,500			\$27,500			\$27,500		\$0	
Prelimin. Plat - Engineering	\$7,500	\$0	\$0	\$7,500	\$0	\$0	\$7,500	\$0	\$0	\$7,500	\$0	\$0	
Final Development Plan - Planning	\$27,500			\$27,500			\$27,500			\$27,500		\$0	
Final Plat - Planning	\$27,500			\$27,500			\$27,500			\$27,500		\$0	
Final Plat - Engineering	\$7,500	\$0	\$0	\$7,500	\$0	\$0	\$7,500	\$0	\$0	\$7,500	\$0	\$0	
Transportation Improvement Fee													
Subtotal - One-Time Fees and Charges	\$308,034	\$395,169	\$508,728	\$798,311	\$645,299	\$676,782	\$938,608	\$1,112,338	\$1,176,432	\$1,162,195	\$1,085,241	\$579,349	
<b>ANNUAL RECURRING REVENUES AFTER OCCUPANCY:</b>													
<b>GENERAL FUND</b>													
Property Tax	\$0	\$6,053	\$31,756	\$115,067	\$238,844	\$383,512	\$526,302	\$722,645	\$928,422	\$1,279,551	\$1,614,325	\$1,861,458	
Specific Ownership Tax	\$0	\$1,499	\$4,014	\$7,595	\$12,700	\$17,681	\$23,096	\$29,526	\$37,555	\$46,687	\$55,397	\$63,389	
Licenses & Permits	See Below	\$0	\$6,535	\$12,788	\$21,307	\$29,824	\$38,861	\$49,560	\$63,545	\$79,393	\$93,889	\$107,861	
Charges for Services	See Below	\$0	\$2,196	\$7,571	\$18,137	\$32,952	\$49,144	\$65,570	\$86,494	\$111,229	\$145,996	\$178,394	
Fees & Fines	See Below	\$0	\$136	\$432	\$874	\$1,454	\$2,046	\$2,659	\$3,382	\$4,371	\$5,489	\$6,471	
Cigarette Tax (State Shared)	\$0	\$227	\$2,705	\$5,401	\$9,924	\$12,663	\$17,950	\$18,179	\$27,381	\$31,795	\$38,732	\$45,658	
Total	\$0	\$12,369	\$53,012	\$159,863	\$317,180	\$494,870	\$674,437	\$909,786	\$1,172,503	\$1,588,910	\$1,987,208	\$2,291,477	
<b>ROAD &amp; BRIDGE FUND</b>													
Property Tax	\$0	\$182	\$956	\$3,464	\$7,191	\$11,546	\$15,845	\$21,756	\$27,951	\$38,522	\$48,600	\$56,040	
Specific Ownership Tax	\$0	\$104	\$279	\$527	\$882	\$1,227	\$1,603	\$2,049	\$2,607	\$3,240	\$3,845	\$4,400	
HUTF Revenues (State Shared)	\$0	\$129,770	\$216,825	\$282,594	\$282,594	\$388,023	\$440,813	\$475,340	\$485,184	\$620,037	\$696,745	\$696,745	
Total	\$0	\$130,056	\$218,060	\$286,585	\$290,666	\$400,796	\$458,260	\$499,145	\$515,742	\$661,799	\$749,191	\$757,185	

**TABLE 8: PROSPER COUNTY REVENUES**

Construction Year	1	2	3	4	5	6	7	8	9	10	11	12	
<b>SOCIAL SERVICES FUND:</b>													
Property Tax Revenues	\$0	\$739	\$3,877	\$14,047	\$29,158	\$46,819	\$64,251	\$88,220	\$113,342	\$156,207	\$197,077	\$227,247	
Specific Ownership Tax	\$0	\$189	\$505	\$956	\$1,599	\$2,226	\$2,908	\$3,717	\$4,728	\$5,878	\$6,975	\$7,981	
Total	\$0	\$928	\$4,382	\$15,004	\$30,757	\$49,045	\$67,159	\$91,938	\$118,070	\$162,085	\$204,051	\$235,227	
<b>DEVELOPMENTAL DISABILITIES</b>													
Property Tax	\$0	\$456	\$2,393	\$8,671	\$17,999	\$28,901	\$39,661	\$54,457	\$69,964	\$96,424	\$121,652	\$140,276	
<b>CAPITAL EXPENDITURES FUND</b>													
Property Tax	\$0	\$286	\$1,500	\$5,437	\$11,285	\$18,121	\$24,867	\$34,145	\$43,867	\$60,458	\$76,276	\$87,953	
Specific Ownership Tax	\$0	\$74	\$198	\$374	\$625	\$870	\$1,137	\$1,454	\$1,849	\$2,298	\$2,727	\$3,121	
Total	\$0	\$360	\$1,698	\$5,811	\$11,910	\$18,991	\$26,005	\$35,598	\$45,716	\$62,757	\$79,003	\$91,074	
<b>OPEN SPACE FUND</b>													
Lodging - Sales Tax Revenues	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Sales Tax Revenues - Shared App.	Table 10	\$0	\$2,206	\$26,267	\$52,437	\$96,352	\$122,948	\$174,284	\$176,507	\$265,855	\$308,711	\$376,068	\$443,315
Use Tax Revenues - Bldg Materials	Table 12	\$16,669	\$51,753	\$59,983	\$73,504	\$73,554	\$80,923	\$89,494	\$144,450	\$143,356	\$111,024	\$135,774	\$66,354
Total Revenues		\$16,669	\$53,959	\$86,250	\$125,941	\$169,907	\$203,872	\$263,778	\$320,958	\$409,211	\$419,735	\$511,842	\$509,670
Less City Shareback	50%	(\$8,334)	(\$26,979)	(\$43,125)	(\$62,971)	(\$84,953)	(\$101,936)	(\$131,889)	(\$160,479)	(\$204,605)	(\$209,868)	(\$255,921)	(\$254,835)
Less Competitive Grant Funds	12%	(\$2,000)	(\$6,475)	(\$10,350)	(\$15,113)	(\$20,389)	(\$24,465)	(\$31,653)	(\$38,515)	(\$49,105)	(\$50,368)	(\$61,421)	(\$61,160)
Arapahoe County Remainder		\$6,334	\$20,504	\$32,775	\$47,858	\$64,565	\$77,471	\$100,236	\$121,964	\$155,500	\$159,499	\$194,500	\$193,675
<b>CONSERVATION TRUST FUND</b>													
Lottery Revenues (State Shared)		\$0	\$1,153	\$3,068	\$5,819	\$9,708	\$13,529	\$17,667	\$22,581	\$28,701	\$35,665	\$42,297	\$48,402
<b>ARAPAHOE LAW ENFORCEMENT FUND</b>													
Property Tax		\$0	\$2,273	\$11,922	\$43,200	\$89,670	\$143,983	\$197,591	\$271,305	\$348,560	\$480,386	\$606,071	\$698,853
Specific Ownership Tax		\$0	\$74	\$198	\$374	\$625	\$870	\$1,137	\$1,454	\$1,849	\$2,298	\$2,727	\$3,121
Charges for Services		\$0	\$22	\$75	\$154	\$256	\$361	\$469	\$596	\$773	\$973	\$1,146	\$1,324
Fines		\$0	\$828	\$2,775	\$5,725	\$9,503	\$13,411	\$17,407	\$22,115	\$28,697	\$36,122	\$42,516	\$49,127
Total		\$0	\$3,197	\$14,970	\$49,453	\$100,054	\$158,627	\$216,605	\$295,470	\$379,880	\$519,780	\$652,460	\$752,424
<b>INVESTMENT EARNINGS</b>													
		\$6,946	\$12,465	\$18,539	\$30,432	\$32,879	\$42,399	\$56,089	\$69,448	\$80,920	\$98,299	\$113,025	\$112,439
<b>TOTAL REVENUES</b>		\$321,314	\$576,658	\$857,625	\$1,407,807	\$1,521,017	\$1,961,410	\$2,594,726	\$3,212,724	\$3,743,427	\$4,547,414	\$5,228,628	\$5,201,528
<b>DETAIL: FEES, FINES &amp; CHARGES FOR SERVICES</b>													
Construction Year	1	2	3	4	5	6	7	8	9	10	11	12	
<b>General Revenue - Licenses &amp; Permits</b>													
Attributable to Unincorporated Households	\$0	\$1,379	\$3,678	\$6,968	\$11,637	\$16,210	\$21,170	\$27,073	\$34,428	\$42,800	\$50,784	\$58,115	
Attributable to Unincorporated Businesses	\$0	\$0	\$353	\$953	\$1,551	\$2,260	\$2,891	\$3,603	\$4,944	\$6,421	\$7,398	\$8,758	
Attributable to Uninc. Households & Businesses	\$0	\$120	\$402	\$829	\$1,377	\$1,943	\$2,522	\$3,203	\$4,157	\$5,233	\$6,159	\$7,116	
Attributable to Countywide Households	\$0	\$71	\$190	\$359	\$600	\$836	\$1,092	\$1,396	\$1,775	\$2,207	\$2,619	\$2,997	
Attributable to Countywide Households & Businesses	\$0	\$105	\$353	\$729	\$1,209	\$1,707	\$2,215	\$2,814	\$3,652	\$4,597	\$5,410	\$6,252	
Attributable to Countywide Motor Vehicles	\$0	\$582	\$1,559	\$2,950	\$4,933	\$6,868	\$8,971	\$11,469	\$14,588	\$18,135	\$21,519	\$24,623	
Total Licenses & Permits - Constant Dollars	\$0	\$2,258	\$6,535	\$12,788	\$21,307	\$29,824	\$38,861	\$49,560	\$63,545	\$79,393	\$93,889	\$107,861	
<b>General Revenue - Charges for Services</b>													
Attributable to Countywide Households	\$0	\$224	\$597	\$1,131	\$1,890	\$2,632	\$3,438	\$4,396	\$5,590	\$6,950	\$8,246	\$9,436	
Attributable to Countywide Households & Businesses	\$0	\$1,033	\$3,460	\$7,138	\$11,849	\$16,723	\$21,705	\$27,575	\$35,782	\$45,040	\$53,012	\$61,256	
Attributable to Countywide Actual Value	\$0	\$16	\$609	\$1,214	\$1,963	\$2,705	\$3,595	\$4,577	\$5,651	\$6,925	\$8,399	\$9,799	
Attributable to Countywide Assessed Value	\$0	\$328	\$1,723	\$6,243	\$12,959	\$20,809	\$28,556	\$39,209	\$50,374	\$69,426	\$87,590	\$100,998	
Attributable to Countywide Motor Vehicles	\$0	\$595	\$1,593	\$3,014	\$5,040	\$7,017	\$9,166	\$11,718	\$14,905	\$18,529	\$21,986	\$25,158	
Total Charges for Services - Constant Dollars	\$0	\$2,196	\$7,571	\$18,137	\$32,952	\$49,144	\$65,570	\$86,494	\$111,229	\$145,996	\$178,394	\$205,648	
<b>General Revenue - Fees &amp; Fines</b>													
Attributable to Countywide Households & Businesses	\$0	\$101	\$340	\$701	\$1,163	\$1,642	\$2,131	\$2,707	\$3,513	\$4,421	\$5,204	\$6,013	
Attributable to Motor Vehicles	\$0	\$34	\$92	\$174	\$290	\$404	\$528	\$675	\$859	\$1,068	\$1,267	\$1,450	
Total Fees & Fines - General Fund - Constant Dollars	\$0	\$136	\$432	\$874	\$1,454	\$2,046	\$2,659	\$3,382	\$4,371	\$5,489	\$6,471	\$7,463	

**TABLE 8: PROSPER**

Construction Year	13	14	15	16	17	18	19	20	21	22	23
Revenue Inflation Rate	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
<b>PROSPER INFORMATION</b>											
Annual Acres Developed (Res + Non-Res)	98.71	80.66	104.48	108.04	135.72	85.01	135.92	121.03	114.68	88.10	104.49
Annual Acres Clustered in 3-Year Increments	283.85			328.77			371.63			266.48	
Plat Pages Per Submittal	25			25.00			25.00			25.00	
Households = Occupied Housing Units	2,581	2,803	3,016	3,272	3,515	3,848	4,076	4,451	4,740	5,096	5,330
Population	6,902	7,493	8,064	8,747	9,398	10,285	10,893	11,893	12,663	13,613	14,239
Jobs	7,839	8,984	9,349	10,157	10,589	11,259	11,868	12,886	14,020	14,606	15,500
EDUs	3,632	4,008	4,270	4,634	4,935	5,358	5,667	6,179	6,620	7,055	7,409
Motor Vehicles	5,498	5,970	6,424	6,969	7,487	8,196	8,682	9,481	10,096	10,854	11,353
Assessed Value w/ Inflation	\$164,365,319	\$176,923,242	\$198,233,965	\$209,782,172	\$227,202,046	\$237,450,673	\$248,982,414	\$261,183,433	\$285,564,393	\$303,606,116	\$324,595,364
Assessed Values / \$1000 (With Inflation)	\$164,365	\$176,923	\$198,234	\$209,782	\$227,202	\$237,451	\$248,982	\$261,183	\$285,564	\$303,606	\$324,595
Actual Values (with inflation)	\$1,020,515,711	\$1,097,314,530	\$1,211,998,046	\$1,291,494,964	\$1,400,151,628	\$1,482,505,223	\$1,580,556,836	\$1,663,631,962	\$1,813,185,017	\$1,928,020,688	\$2,061,305,832
Actual Values / \$1000 (with inflation)	\$1,020,516	\$1,097,315	\$1,211,998	\$1,291,495	\$1,400,152	\$1,482,505	\$1,580,557	\$1,663,632	\$1,813,185	\$1,928,021	\$2,061,306
Taxable Sales /\$1,000 (Method B - Attributable Share)	\$193,857	\$209,532	\$226,172	\$227,140	\$234,035	\$241,159	\$246,955	\$267,099	\$278,052	\$299,020	\$315,707
<b>2012 Property Taxes Received by Arapahoe County</b>											
County General Fund	13.270	13.270	13.270	13.270	13.270	13.270	13.270	13.270	13.270	13.270	13.270
County Road and Bridge Fund (at 50%)	0.3995	0.3995	0.3995	0.3995	0.3995	0.3995	0.3995	0.3995	0.3995	0.3995	0.3995
Social Services Fund	1.620	1.620	1.620	1.620	1.620	1.620	1.620	1.620	1.620	1.620	1.620
Capital Expenditures	0.627	0.627	0.627	0.627	0.627	0.627	0.627	0.627	0.627	0.627	0.627
Developmental Disabilities	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Arapahoe Law Enforcement Authority	4.982	4.982	4.982	4.982	4.982	4.982	4.982	4.982	4.982	4.982	4.982
TOTAL APPLIED	21.899	21.899	21.899	21.899	21.899	21.899	21.899	21.899	21.899	21.899	21.899
Registered Motor Vehicles	5,498	5,970	6,424	6,969	7,487	8,196	8,682	9,481	10,096	10,854	11,353
Cumulative Lane Miles Complete	153.262	155.552	171.300	171.300	171.300	194.992	209.032	209.032	224.558	236.858	236.858
<b>ONE-TIME FEES &amp; CHARGES: APPLIED IN YEAR OF CONSTRUCTION</b>											
Building Permit & Plan Review Fee	\$841,009	\$648,275	\$888,693	\$807,744	\$1,009,530	\$661,737	\$1,151,471	\$968,779	\$1,039,043	\$719,907	\$878,740
Drainage Master Plan - Engineering	\$32,643	\$0	\$0	\$37,809	\$0	\$0	\$42,737	\$0	\$0	\$30,645	\$0
Prelimin. Development Plan - Planning	\$27,500			\$27,500			\$27,500			\$27,500	
Prelimin. Plat - Planning	\$27,500			\$27,500			\$27,500			\$27,500	
Prelimin. Plat - Engineering	\$7,500	\$0	\$0	\$7,500	\$0	\$0	\$7,500	\$0	\$0	\$7,500	\$0
Final Development Plan - Planning	\$27,500			\$27,500			\$27,500			\$27,500	
Final Plat - Planning	\$27,500			\$27,500			\$27,500			\$27,500	
Final Plat - Engineering	\$7,500	\$0	\$0	\$7,500	\$0	\$0	\$7,500	\$0	\$0	\$7,500	\$0
Transportation Improvement Fee											
Subtotal - One-Time Fees and Charges	\$998,651	\$648,275	\$888,693	\$970,553	\$1,009,530	\$661,737	\$1,319,208	\$968,779	\$1,039,043	\$875,552	\$878,740
<b>ANNUAL RECURRING REVENUES AFTER OCCUPANCY:</b>											
<b>GENERAL FUND</b>											
Property Tax	\$2,181,128	\$2,347,771	\$2,630,565	\$2,783,809	\$3,014,971	\$3,150,970	\$3,303,997	\$3,465,904	\$3,789,439	\$4,028,853	\$4,307,380
Specific Ownership Tax	\$68,122	\$73,970	\$79,595	\$86,348	\$92,766	\$101,551	\$107,573	\$117,473	\$125,093	\$134,485	\$140,667
Licenses & Permits	\$115,896	\$126,677	\$135,755	\$147,300	\$157,685	\$172,046	\$182,138	\$198,771	\$212,188	\$227,317	\$238,145
Charges for Services	\$231,528	\$251,343	\$275,650	\$295,040	\$317,624	\$338,285	\$356,453	\$380,747	\$411,946	\$439,092	\$465,323
Fees & Fines	\$8,018	\$8,820	\$9,415	\$10,216	\$10,899	\$11,852	\$12,539	\$13,676	\$14,635	\$15,623	\$16,394
Cigarette Tax (State Shared)	\$49,915	\$53,951	\$58,235	\$58,485	\$60,260	\$62,094	\$63,587	\$68,773	\$71,594	\$76,993	\$81,289
Total	\$2,654,606	\$2,862,533	\$3,189,215	\$3,381,199	\$3,654,205	\$3,836,799	\$4,026,286	\$4,245,344	\$4,624,895	\$4,922,362	\$5,249,199
<b>ROAD &amp; BRIDGE FUND</b>											
Property Tax	\$65,664	\$70,681	\$79,194	\$83,808	\$90,767	\$94,862	\$99,468	\$104,343	\$114,083	\$121,291	\$129,676
Specific Ownership Tax	\$4,728	\$5,134	\$5,525	\$5,993	\$6,439	\$7,049	\$7,467	\$8,154	\$8,683	\$9,334	\$9,764
HUTF Revenues (State Shared)	\$769,807	\$781,310	\$860,409	\$860,409	\$860,409	\$979,410	\$1,049,930	\$1,049,930	\$1,127,914	\$1,189,695	\$1,189,695
Total	\$840,200	\$857,125	\$945,128	\$950,210	\$957,615	\$1,081,320	\$1,156,865	\$1,162,426	\$1,250,680	\$1,320,320	\$1,329,134

**TABLE 8: PROSPER**

Construction Year	13	14	15	16	17	18	19	20	21	22	23
<b>SOCIAL SERVICES FUND:</b>											
Property Tax Revenues	\$266,272	\$286,616	\$321,139	\$339,847	\$368,067	\$384,670	\$403,352	\$423,117	\$462,614	\$491,842	\$525,844
Specific Ownership Tax	\$8,577	\$9,313	\$10,021	\$10,872	\$11,680	\$12,786	\$13,544	\$14,790	\$15,750	\$16,932	\$17,711
Total	\$274,849	\$295,929	\$331,160	\$350,719	\$379,747	\$397,456	\$416,895	\$437,908	\$478,364	\$508,774	\$543,555
<b>DEVELOPMENTAL DISABILITIES</b>											
Property Tax	\$164,365	\$176,923	\$198,234	\$209,782	\$227,202	\$237,451	\$248,982	\$261,183	\$285,564	\$303,606	\$324,595
<b>CAPITAL EXPENDITURES FUND</b>											
Property Tax	\$103,057	\$110,931	\$124,293	\$131,533	\$142,456	\$148,882	\$156,112	\$163,762	\$179,049	\$190,361	\$203,521
Specific Ownership Tax	\$3,354	\$3,642	\$3,919	\$4,251	\$4,567	\$5,000	\$5,296	\$5,783	\$6,159	\$6,621	\$6,925
Total	\$106,411	\$114,573	\$128,211	\$135,785	\$147,023	\$153,881	\$161,408	\$169,545	\$185,207	\$196,982	\$210,447
<b>OPEN SPACE FUND</b>											
Lodging - Sales Tax Revenues	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$15,056	\$15,056	\$15,056	\$15,056
Sales Tax Revenues - Shared App.	\$484,642	\$523,830	\$565,429	\$567,851	\$585,088	\$602,897	\$617,387	\$667,748	\$695,130	\$747,550	\$789,267
Use Tax Revenues - Bldg Materials	\$109,562	\$70,874	\$108,276	\$93,261	\$116,817	\$71,673	\$135,949	\$117,703	\$120,972	\$82,366	\$119,546
Total Revenues	\$594,204	\$594,704	\$673,705	\$661,111	\$701,905	\$674,570	\$753,336	\$800,507	\$831,158	\$844,972	\$923,870
Less City Shareback	(\$297,102)	(\$297,352)	(\$336,853)	(\$330,556)	(\$350,953)	(\$337,285)	(\$376,668)	(\$400,254)	(\$415,579)	(\$422,486)	(\$461,935)
Less Competitive Grant Funds	(\$71,304)	(\$71,364)	(\$80,845)	(\$79,333)	(\$84,229)	(\$80,948)	(\$90,400)	(\$96,061)	(\$99,739)	(\$101,397)	(\$110,864)
Arapahoe County Remainder	\$225,797	\$225,987	\$256,008	\$251,222	\$266,724	\$256,337	\$286,268	\$304,193	\$315,840	\$321,089	\$351,070
<b>CONSERVATION TRUST FUND</b>											
Lottery Revenues (State Shared)	\$52,020	\$56,475	\$60,778	\$65,926	\$70,832	\$77,518	\$82,100	\$89,637	\$95,441	\$102,601	\$107,319
<b>ARAPAHOE LAW ENFORCEMENT FUND</b>											
Property Tax	\$818,868	\$881,432	\$987,602	\$1,045,135	\$1,131,921	\$1,182,979	\$1,240,430	\$1,301,216	\$1,422,682	\$1,512,566	\$1,617,134
Specific Ownership Tax	\$3,354	\$3,642	\$3,919	\$4,251	\$4,567	\$5,000	\$5,296	\$5,783	\$6,159	\$6,621	\$6,925
Charges for Services	\$1,422	\$1,569	\$1,672	\$1,814	\$1,932	\$2,098	\$2,219	\$2,419	\$2,592	\$2,762	\$2,901
Fines	\$52,774	\$58,237	\$62,044	\$67,333	\$71,707	\$77,853	\$82,343	\$89,783	\$96,191	\$102,511	\$107,655
Total	\$876,418	\$944,880	\$1,055,236	\$1,118,533	\$1,210,127	\$1,267,930	\$1,330,288	\$1,399,201	\$1,527,623	\$1,624,460	\$1,734,615
<b>INVESTMENT EARNINGS</b>											
	\$136,836	\$136,602	\$155,823	\$164,246	\$175,052	\$176,100	\$199,473	\$199,692	\$216,582	\$224,825	\$237,041
<b>TOTAL REVENUES</b>	<b>\$6,330,153</b>	<b>\$6,319,300</b>	<b>\$7,208,487</b>	<b>\$7,598,176</b>	<b>\$8,098,057</b>	<b>\$8,146,526</b>	<b>\$9,227,774</b>	<b>\$9,237,908</b>	<b>\$10,019,238</b>	<b>\$10,400,571</b>	<b>\$10,965,716</b>
<b>DETAIL: FEES, FINES &amp; CHARGES FOR SERVICES</b>											
Construction Year	13	14	15	16	17	18	19	20	21	22	23
<b>General Revenue - Licenses &amp; Permits</b>											
Attributable to Unincorporated Households	\$62,445	\$67,817	\$72,970	\$79,164	\$85,043	\$93,100	\$98,616	\$107,689	\$114,681	\$123,294	\$128,956
Attributable to Unincorporated Businesses	\$9,409	\$10,783	\$11,221	\$12,191	\$12,709	\$13,513	\$14,244	\$15,466	\$16,827	\$17,530	\$18,603
Attributable to Uninc. Households & Businesses	\$7,645	\$8,436	\$8,987	\$9,754	\$10,387	\$11,277	\$11,928	\$13,006	\$13,934	\$14,849	\$15,594
Attributable to Countywide Households	\$3,220	\$3,497	\$3,763	\$4,082	\$4,386	\$4,801	\$5,086	\$5,553	\$5,914	\$6,358	\$6,650
Attributable to Countywide Households & Businesses	\$6,716	\$7,411	\$7,896	\$8,569	\$9,125	\$9,908	\$10,479	\$11,426	\$12,241	\$13,045	\$13,700
Attributable to Countywide Motor Vehicles	\$26,461	\$28,733	\$30,918	\$33,541	\$36,034	\$39,447	\$41,786	\$45,631	\$48,591	\$52,240	\$54,641
Total Licenses & Permits - Constant Dollars	\$115,896	\$126,677	\$135,755	\$147,300	\$157,685	\$172,046	\$182,138	\$198,771	\$212,188	\$227,317	\$238,145
<b>General Revenue - Charges for Services</b>											
Attributable to Countywide Households	\$10,140	\$11,012	\$11,849	\$12,854	\$13,809	\$15,117	\$16,013	\$17,486	\$18,622	\$20,020	\$20,939
Attributable to Countywide Households & Businesses	\$65,803	\$72,615	\$77,362	\$83,957	\$89,411	\$97,074	\$102,673	\$111,949	\$119,939	\$127,820	\$134,234
Attributable to Countywide Actual Value	\$10,205	\$10,973	\$12,120	\$12,915	\$14,002	\$14,825	\$15,806	\$16,636	\$18,132	\$19,280	\$20,613
Attributable to Countywide Assessed Value	\$118,343	\$127,385	\$142,728	\$151,043	\$163,585	\$170,964	\$179,267	\$188,052	\$205,606	\$218,596	\$233,709
Attributable to Countywide Motor Vehicles	\$27,037	\$29,358	\$31,590	\$34,270	\$36,818	\$40,304	\$42,694	\$46,623	\$49,647	\$53,375	\$55,829
Total Charges for Services - Constant Dollars	\$231,528	\$251,343	\$275,650	\$295,040	\$317,624	\$338,285	\$356,453	\$380,747	\$411,946	\$439,092	\$465,323
<b>General Revenue - Fees &amp; Fines</b>											
Attributable to Countywide Households & Businesses	\$6,460	\$7,128	\$7,594	\$8,242	\$8,777	\$9,529	\$10,079	\$10,990	\$11,774	\$12,548	\$13,177
Attributable to Motor Vehicles	\$1,558	\$1,692	\$1,820	\$1,975	\$2,121	\$2,322	\$2,460	\$2,686	\$2,861	\$3,076	\$3,217
Total Fees & Fines - General Fund - Constant Dollars	\$8,018	\$8,820	\$9,415	\$10,216	\$10,899	\$11,852	\$12,539	\$13,676	\$14,635	\$15,623	\$16,394

**TABLE 8: PROSPER**

Construction Year	24	25	26	27	28	29	30	31	32
Revenue Inflation Rate	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
<b>PROSPER INFORMATION</b>									
Annual Acres Developed (Res + Non-Res)	73.89	107.23	127.74	151.16	134.44	168.38	126.87	0.00	0.00
Annual Acres Clustered in 3-Year Increments		386.13			429.69				
Plat Pages Per Submittal		25.00			25.00				
Households = Occupied Housing Units	5,567	5,767	6,028	6,353	6,774	7,247	7,874	8,361	8,361
Population	14,870	15,402	16,100	16,970	18,096	19,363	21,042	22,344	22,344
Jobs	16,647	17,451	19,194	20,056	21,716	22,378	23,592	24,573	24,573
FDUs	7,799	8,107	8,602	9,043	9,686	10,248	11,038	11,656	11,656
Motor Vehicles	11,858	12,284	12,840	13,532	14,429	15,436	16,772	17,809	17,809
Assessed Value w/ Inflation	\$340,155,013	\$362,251,116	\$379,525,171	\$407,533,738	\$423,109,385	\$447,582,860	\$464,016,821	\$486,989,195	\$503,613,658
Assessed Values / \$1000 (With Inflation)	\$340,155	\$362,251	\$379,525	\$407,534	\$423,109	\$447,583	\$464,017	\$486,989	\$503,614
Actual Values (with inflation)	\$2,155,516,311	\$2,272,695,911	\$2,365,593,735	\$2,507,584,387	\$2,619,826,003	\$2,776,911,655	\$2,913,235,170	\$3,093,649,489	\$3,226,597,206
Actual Values / \$1000 (with inflation)	\$2,155,516	\$2,272,696	\$2,365,594	\$2,507,584	\$2,619,826	\$2,776,912	\$2,913,235	\$3,093,649	\$3,226,597
Taxable Sales /\$1,000 (Method B - Attributable Share)	\$331,372	\$360,796	\$371,671	\$382,764	\$409,021	\$410,602	\$432,423	\$462,638	\$462,638
<b>2012 Property Taxes Received by Arapahoe County</b>									
County General Fund	13.270	13.270	13.270	13.270	13.270	13.270	13.270	13.270	13.270
County Road and Bridge Fund (at 50%)	0.3995	0.3995	0.3995	0.3995	0.3995	0.3995	0.3995	0.3995	0.3995
Social Services Fund	1.620	1.620	1.620	1.620	1.620	1.620	1.620	1.620	1.620
Capital Expenditures	0.627	0.627	0.627	0.627	0.627	0.627	0.627	0.627	0.627
Developmental Disabilities	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Arapahoe Law Enforcement Authority	4.982	4.982	4.982	4.982	4.982	4.982	4.982	4.982	4.982
TOTAL APPLIED	21.899	21.899	21.899	21.899	21.899	21.899	21.899	21.899	21.899
Registered Motor Vehicles	11,858	12,284	12,840	13,532	14,429	15,436	16,772	17,809	17,809
Cumulative Lane Miles Complete	240.448	240.448	240.448	244.964	244.964	248.568	248.568	248.568	248.568
<b>ONE-TIME FEES &amp; CHARGES: APPLIED IN YEAR OF CONSTRUCTION</b>									
Building Permit & Plan Review Fee	\$624,455	\$1,000,270	\$1,033,251	\$1,335,774	\$1,289,557	\$1,691,281	\$1,264,060	\$0	\$0
Drainage Master Plan - Engineering	\$0	\$44,405	\$0	\$0	\$49,414	\$0	\$0	\$0	\$0
Prelimin. Development Plan - Planning		\$27,500			\$27,500				
Prelimin. Plat - Planning		\$27,500			\$27,500				
Prelimin. Plat - Engineering	\$0	\$7,500	\$0	\$0	\$7,500	\$0	\$0	\$0	\$0
Final Development Plan - Planning		\$27,500			\$27,500				
Final Plat - Planning		\$27,500			\$27,500				
Final Plat - Engineering	\$0	\$7,500	\$0	\$0	\$7,500	\$0	\$0	\$0	\$0
Transportation Improvement Fee									
Subtotal - One-Time Fees and Charges	\$624,455	\$1,169,675	\$1,033,251	\$1,335,774	\$1,463,971	\$1,691,281	\$1,264,060	\$0	\$0
<b>ANNUAL RECURRING REVENUES AFTER OCCUPANCY:</b>									
<b>GENERAL FUND</b>									
Property Tax	\$4,513,857	\$4,807,072	\$5,036,299	\$5,407,973	\$5,614,662	\$5,939,425	\$6,157,503	\$6,462,347	\$6,682,953
Specific Ownership Tax	\$146,924	\$152,203	\$159,092	\$167,666	\$178,780	\$191,257	\$207,811	\$220,659	\$220,659
Licenses & Permits	\$249,524	\$258,845	\$272,211	\$286,588	\$306,151	\$326,048	\$353,011	\$374,013	\$374,013
Charges for Services	\$487,949	\$513,491	\$539,585	\$573,840	\$603,892	\$640,076	\$676,618	\$713,171	\$726,470
Fees & Fines	\$17,231	\$17,899	\$18,937	\$19,918	\$21,315	\$22,600	\$24,384	\$25,777	\$25,777
Cigarette Tax (State Shared)	\$85,323	\$92,899	\$95,699	\$98,555	\$105,316	\$105,723	\$111,342	\$119,121	\$119,121
Total	\$5,500,808	\$5,842,409	\$6,121,822	\$6,554,540	\$6,830,316	\$7,225,129	\$7,530,668	\$7,915,089	\$8,148,995
<b>ROAD &amp; BRIDGE FUND</b>									
Property Tax	\$135,892	\$144,719	\$151,620	\$162,810	\$169,032	\$178,809	\$185,375	\$194,552	\$201,194
Specific Ownership Tax	\$10,198	\$10,564	\$11,042	\$11,638	\$12,409	\$13,275	\$14,424	\$15,316	\$15,316
HUTF Revenues (State Shared)	\$1,207,727	\$1,207,727	\$1,207,727	\$1,230,410	\$1,230,410	\$1,248,512	\$1,248,512	\$1,248,512	\$1,248,512
Total	\$1,353,817	\$1,363,010	\$1,370,390	\$1,404,857	\$1,411,851	\$1,440,596	\$1,448,311	\$1,458,380	\$1,465,022

**TABLE 8: PROSPER**

Construction Year	24	25	26	27	28	29	30	31	32
<b>SOCIAL SERVICES FUND:</b>									
Property Tax Revenues	\$551,051	\$586,847	\$614,831	\$660,205	\$685,437	\$725,084	\$751,707	\$788,922	\$815,854
Specific Ownership Tax	\$18,498	\$19,163	\$20,030	\$21,110	\$22,509	\$24,080	\$26,164	\$27,782	\$27,782
Total	\$569,550	\$606,010	\$634,861	\$681,315	\$707,946	\$749,164	\$777,872	\$816,705	\$843,636
<b>DEVELOPMENTAL DISABILITIES</b>									
Property Tax	\$340,155	\$362,251	\$379,525	\$407,534	\$423,109	\$447,583	\$464,017	\$486,989	\$503,614
<b>CAPITAL EXPENDITURES FUND</b>									
Property Tax	\$213,277	\$227,131	\$237,962	\$255,524	\$265,290	\$280,634	\$290,939	\$305,342	\$315,766
Specific Ownership Tax	\$7,233	\$7,493	\$7,832	\$8,255	\$8,802	\$9,416	\$10,231	\$10,863	\$10,863
Total	\$220,511	\$234,625	\$245,795	\$263,778	\$274,091	\$290,050	\$301,169	\$316,206	\$326,629
<b>OPEN SPACE FUND</b>									
Lodging - Sales Tax Revenues	\$15,056	\$15,056	\$15,056	\$15,056	\$15,056	\$15,056	\$15,056	\$15,056	\$15,056
Sales Tax Revenues - Shared App.	\$828,430	\$901,990	\$929,177	\$956,910	\$1,022,552	\$1,026,504	\$1,081,058	\$1,156,594	\$1,156,594
Use Tax Revenues - Bldg Materials	\$74,294	\$135,328	\$119,091	\$153,733	\$131,419	\$176,627	\$132,432	\$0	\$0
Total Revenues	\$917,780	\$1,052,373	\$1,063,325	\$1,125,699	\$1,169,028	\$1,218,188	\$1,228,546	\$1,171,650	\$1,171,650
Less City Shareback	(\$458,890)	(\$526,187)	(\$531,662)	(\$562,850)	(\$584,514)	(\$609,094)	(\$614,273)	(\$585,825)	(\$585,825)
Less Competitive Grant Funds	(\$110,134)	(\$126,285)	(\$127,599)	(\$135,084)	(\$140,283)	(\$146,183)	(\$147,426)	(\$140,598)	(\$140,598)
Arapahoe County Remainder	\$348,757	\$399,902	\$404,063	\$427,766	\$444,230	\$462,911	\$466,847	\$445,227	\$445,227
<b>CONSERVATION TRUST FUND</b>									
Lottery Revenues (State Shared)	\$112,075	\$116,084	\$121,345	\$127,902	\$136,389	\$145,938	\$158,593	\$168,406	\$168,406
<b>ARAPAHOE LAW ENFORCEMENT FUND</b>									
Property Tax	\$1,694,652	\$1,804,735	\$1,890,794	\$2,030,333	\$2,107,931	\$2,229,858	\$2,311,732	\$2,426,180	\$2,509,003
Specific Ownership Tax	\$7,233	\$7,493	\$7,832	\$8,255	\$8,802	\$9,416	\$10,231	\$10,863	\$10,863
Charges for Services	\$3,053	\$3,174	\$3,368	\$3,540	\$3,792	\$4,012	\$4,321	\$4,563	\$4,563
Fines	\$113,322	\$117,797	\$124,990	\$131,397	\$140,740	\$148,906	\$160,385	\$169,365	\$169,365
Total	\$1,818,261	\$1,933,199	\$2,026,984	\$2,173,525	\$2,261,265	\$2,392,192	\$2,486,669	\$2,610,972	\$2,693,795
<b>INVESTMENT EARNINGS</b>									
	\$240,570	\$265,730	\$272,599	\$295,553	\$308,279	\$327,984	\$329,163	\$314,134	\$322,471
<b>TOTAL REVENUES</b>	\$11,128,956	\$12,292,896	\$12,610,635	\$13,672,544	\$14,261,249	\$15,172,831	\$15,227,370	\$14,532,108	\$14,917,795
<b>DETAIL: FEES, FINES &amp; CHARGES FOR SERVICES</b>									
Construction Year	24	25	26	27	28	29	30	31	32
<b>General Revenue - Licenses &amp; Permits</b>									
Attributable to Unincorporated Households	\$134,690	\$139,528	\$145,843	\$153,706	\$163,892	\$175,336	\$190,506	\$202,288	\$202,288
Attributable to Unincorporated Businesses	\$19,980	\$20,945	\$23,037	\$24,072	\$26,064	\$26,859	\$28,316	\$29,493	\$29,493
Attributable to Uninc. Households & Businesses	\$16,415	\$17,064	\$18,105	\$19,034	\$20,387	\$21,570	\$23,233	\$24,533	\$24,533
Attributable to Countywide Households	\$6,946	\$7,195	\$7,521	\$7,926	\$8,452	\$9,042	\$9,824	\$10,432	\$10,432
Attributable to Countywide Households & Businesses	\$14,421	\$14,991	\$15,906	\$16,721	\$17,910	\$18,950	\$20,410	\$21,553	\$21,553
Attributable to Countywide Motor Vehicles	\$57,072	\$59,122	\$61,798	\$65,129	\$69,446	\$74,292	\$80,722	\$85,713	\$85,713
Total Licenses & Permits - Constant Dollars	\$249,524	\$258,845	\$272,211	\$286,588	\$306,151	\$326,048	\$353,011	\$374,013	\$374,013
<b>General Revenue - Charges for Services</b>									
Attributable to Countywide Households	\$21,870	\$22,656	\$23,682	\$24,958	\$26,612	\$28,470	\$30,934	\$32,847	\$32,847
Attributable to Countywide Households & Businesses	\$141,299	\$146,880	\$155,848	\$163,838	\$175,487	\$185,670	\$199,982	\$211,179	\$211,179
Attributable to Countywide Actual Value	\$21,555	\$22,727	\$23,656	\$25,076	\$26,198	\$27,769	\$29,132	\$30,936	\$32,266
Attributable to Countywide Assessed Value	\$244,912	\$260,821	\$273,258	\$293,424	\$304,639	\$322,260	\$334,092	\$350,632	\$362,602
Attributable to Countywide Motor Vehicles	\$58,312	\$60,407	\$63,141	\$66,544	\$70,955	\$75,907	\$82,477	\$87,576	\$87,576
Total Charges for Services - Constant Dollars	\$487,949	\$513,491	\$539,585	\$573,840	\$603,892	\$640,076	\$676,618	\$713,171	\$726,470
<b>General Revenue - Fees &amp; Fines</b>									
Attributable to Countywide Households & Businesses	\$13,871	\$14,419	\$15,299	\$16,083	\$17,227	\$18,227	\$19,632	\$20,731	\$20,731
Attributable to Motor Vehicles	\$3,360	\$3,481	\$3,638	\$3,834	\$4,088	\$4,374	\$4,752	\$5,046	\$5,046
Total Fees & Fines - General Fund - Constant Dollars	\$17,231	\$17,899	\$18,937	\$19,918	\$21,315	\$22,600	\$24,384	\$25,777	\$25,777

**TABLE 9: REVENUE METRICS & CALCULATION METHODS**

REVENUE ALLOCATION METHODS:	Parameter	Calculation Method	Internal Calculation Figures		
			Revenues	Denominator	Denominator Description
Revenue Inflation Rate	0.00%				
<b>GENERAL FUND - One-Time Fees &amp; Charges - Development Related</b>					
Building Permit & Plan Review Fee		See Table 13 Building permit and Plan Review fee schedule and calculations			
Drainage Master Plan Fee		\$115 per gross acre platted.			
Preliminary Development Plan - Planning		\$2,000 per sheet, sheets 1 to 10; \$500 per sheet thereafter			
Preliminary Plat - Planning		\$2,000 per sheet, sheets 1 to 10; \$500 per sheet thereafter			
Preliminary Plat - Engineering		\$2,500 for <5 acres; \$5,000 for 5 to <25 acres; \$7,500 for 25 acres or more			
Final Development Plan		\$2,000 per sheet, sheets 1 to 10; \$500 per sheet thereafter.			
Final Plat - Planning		\$2,000 per sheet, sheets 1 to 10; \$500 per sheet thereafter			
Final Plat - Engineering		\$2,500 for <5 acres; \$5,000 for 5 to <25 acres; \$7,500 for 25 acres or more			
Transportation Improvement Fee		Fee waived until housing market improves			
<b>GENERAL FUND - Not Development Related</b>					
Property Tax (expressed in mills)	\$13.27	Assessed Valuation x mill levy. Taxes collected one year after occupancy	\$95,988,457	N/A	Specific Calculation
Specific Ownership Tax	\$12.39	Per Motor Vehicle - Revenues Received by this Fund / 2010 Registered Motor Vehicles	\$6,100,000	492,320	Countywide Motor Vehicles
<b>Licenses &amp; Permits</b>					
		See Table 14 for Details			
Attributable to Unincorporated Households	\$24.19	License & Permit revenues attributable / Unincorporated Households	\$794,000	32,818	Unincorporated Households
Attributable to Unincorporated Businesses	\$1.20	License & Permit revenues attributable primarily to Uninc. Households / Unc. Households	\$57,930	48,266	Unincorporated Areas - Jobs
Attributable to Unincorporated Households & Businesses	\$2.10		\$82,785	39,332	Unincorporated EDUs
Attributable to Countywide Households	\$1.25		\$288,800	231,470	Countywide Households
Attributable to Countywide Households & Businesses	\$1.85		\$500,000	270,401	Countywide EDUs
Attributable to Countywide Motor Vehicles	\$4.81		\$2,369,500	492,320	Countywide Motor Vehicles
<b>Charges for Services</b>					
		See Table 14 for Details			
Attributable to Countywide Households	\$3.93	Attributable Revenues Per Countywide Household	\$909,350	231,470	Countywide Households
Attributable to Countywide Households & Businesses	\$18.12	Attributable Revenues per Countywide EDU	\$4,899,020	270,401	Countywide EDUs
Attributable to Countywide Actual Value	\$0.01	Attributable Revenue per Actual Values in \$000	\$407,140	\$60,010,543	Countywide Actual Value in \$000
Attributable to Countywide Assessed Value	\$0.72	Attributable Revenue per Assessed Values in \$000	\$5,300,000	\$7,383,855	Countywide Assessed Value in \$000
Attributable to Countywide Motor Vehicles	\$6.44	Attributable Revenues per registered motor vehicle	\$3,171,000	492,320	Countywide Motor Vehicles
<b>Fees &amp; Fines</b>					
		See Table 14 for Details			
Attributable to Countywide Households & Businesses	\$1.78	Attributable Revenues per Countywide EDU	\$480,920	270,401	Countywide EDUs
Attributable to Motor Vehicles	\$0.28	Attributable Revenues per registered motor vehicle	\$139,500	492,320	Countywide Motor Vehicles
<b>Miscellaneous</b>					
Attributable to Countywide Households & Businesses	\$1.42	Attributable Revenues per Countywide EDU	\$385,000	270,401	Countywide EDUs
<b>GENERAL FUND - Development Related</b>					
		See separate Calculation - Table 13			
<b>GENERAL FUND - State Shared Revenues</b>					
Cigarette Tax	\$0.26	Attributable Revenues per Taxable Sales in \$000	\$160,000	\$621,400	2010 Taxable Sales - Unincorporated in \$000
<b>ARAPAHOE LAW ENFORCEMENT AUTHORITY FUND</b>					
Property Tax (expressed in mills)	\$4.98	Assessed Valuation x mill levy. Taxes collected one year after occupancy	\$4,875,852		Specific Assessed Value Calculation
Specific Ownership Tax	\$0.61	Per Motor Vehicle - Revenues Received by this Fund / 2010 Registered Motor Vehicles	\$300,000	492,320	Motor Vehicles
Charges for Services	\$0.39		\$15,398	39,332	Unincorporated EDUs
Fines & Penalties	\$14.53		\$571,500	39,332	Unincorporated EDUs
<b>CAPITAL EXPENDITURES FUND</b>					
Property Tax (expressed in mills)	\$0.63	Assessed Valuation x mill levy. Taxes collected one year after occupancy	\$4,535,253	N/A	Specific Calculation
Specific Ownership Tax	\$0.61	Per Motor Vehicle - Revenues Received by this Fund / 2010 Registered Motor Vehicles	\$300,000	492,320	

**TABLE 9: REVENUE METRICS & CALCULATION METHODS**

REVENUE ALLOCATION METHODS:	Parameter	Calculation Method	Internal Calculation Figures		
			Revenues	Denominator	Denominator Description
<b>CONSERVATION TRUST FUND</b>					
Lottery Revenues	\$7.54	State Revenues received by Arapahoe County per population in unincorporated nondistrict areas + 50% residing in unincorporated district areas	\$460,000	61,033	Population in unincorporated areas
<b>DEVELOPMENTAL DISABILITIES FUND</b>					
Property Tax (expressed in mills)	\$1.00	Assessed Valuation x mill levy. Taxes collected one year after occupancy	\$7,277,051	N/A	Specific Calculation
Specific Ownership Tax	N/A	2012 Budget does not attribute revenues to this source.	N/A	N/A	
<b>OPEN SPACE SALES TAX FUND</b>					
Sales Tax	\$0.00	See Table 10. Sales Tax Detail			
Use Tax - Building Materials	\$0.00	See Table 12 - Construction Costs and Use Tax Detail. Building construction costs x 50% x 0.25%			
<b>ROAD &amp; BRIDGE FUND</b>					
Property Tax (expressed in mills)	\$0.80	Assessed Valuation x mill levy. Taxes collected one year after occupancy	\$5,779,373	N/A	Specific Calculation
Specific Ownership Tax	\$0.86	Per Motor Vehicle - Revenues Received by this Fund / 2010 Registered Motor Vehicles	\$425,000	492,320	
State Highway Users Tax Fund	\$5,022.82	State HUTF Revenues received by Arapahoe County per lane mile in Arapahoe County	\$7,880,000	1,569	Lane Miles
Licenses & Permits					
<b>SOCIAL SERVICES FUND</b>					
Property Tax (expressed in mills)	\$1.62	Assessed Valuation x mill levy. Taxes collected one year after occupancy	\$11,717,879	N/A	Specific Calculation
Specific Ownership Tax	\$1.56	Per Motor Vehicle - Revenues Received by this Fund / 2010 Registered Motor Vehicles	\$770,000	492,320	
<b>INVESTMENT EARNINGS</b>					
General Fund	2.07%	Interest Earned in the Fund / Total Fund Revenues	\$3,200,000	\$154,805,148	Total Fund Revenues
Open Space Sales Tax Fund	3.49%	Interest Earned in the Fund / Total Fund Revenues	<u>\$600,000</u>	<u>\$17,185,973</u>	Total Fund Revenues
Blended Rate	2.21%	Interest Earned in Funds in the Fiscal Model / Total Fund Revenues in Fiscal Model	\$3,800,000	\$171,991,121	

TABLE 10: REVENUE DETAIL		SALES TAX REVENUES ATTRIBUTABLE TO OPEN SPACE FUND											
Construction Year		1	2	3	4	5	6	7	8	9	10	11	12
<b>PART 1: ON-SITE RESIDENTS AND ON-SITE OFFICE USERS</b>													
<b>Prosper Residents</b>													
	% Vacancy	5.0%											
Cumulative Units Occupied		0	57	152	288	481	670	875	1,119	1,423	1,769	2,099	2,402
Market Value Occupied - With Inflation		\$0	\$14,943,597	\$40,655,028	\$77,639,844	\$126,563,452	\$175,135,170	\$224,893,495	\$283,458,958	\$356,923,011	\$440,540,263	\$518,810,564	\$594,130,349
Real Estate Inflation Factor		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Market Value Occupied Housing - Constant Dollars			\$14,943,597	\$40,655,028	\$77,639,844	\$126,563,452	\$175,135,170	\$224,893,495	\$283,458,958	\$356,923,011	\$440,540,263	\$518,810,564	\$594,130,349
Household Income - Constant Dollars			\$3,437,027	\$9,350,657	\$17,857,164	\$29,109,594	\$40,281,089	\$51,725,504	\$65,195,560	\$82,097,292	\$101,324,261	\$119,326,430	\$136,649,980
<b>Resident Expenditures: (Constant Dollars)</b>													
Convenience Goods			\$123,733	\$336,624	\$642,858	\$1,047,945	\$1,450,119	\$1,862,118	\$2,347,040	\$2,955,323	\$3,647,673	\$4,295,751	\$4,919,399
Shopper Goods			\$536,176	\$1,458,702	\$2,785,718	\$4,541,097	\$6,283,850	\$8,069,179	\$10,170,507	\$12,806,398	\$15,806,585	\$18,614,923	\$21,317,397
Eating & Drinking			\$178,725	\$486,234	\$928,573	\$1,513,699	\$2,094,617	\$2,689,726	\$3,390,169	\$4,268,799	\$5,268,862	\$6,204,974	\$7,105,799
Building & Gardening			\$130,607	\$355,325	\$678,572	\$1,106,165	\$1,530,681	\$1,965,569	\$2,477,431	\$3,119,507	\$3,850,322	\$4,534,404	\$5,192,699
Utilities			\$65,304	\$177,662	\$339,286	\$553,082	\$765,341	\$982,785	\$1,238,716	\$1,559,754	\$1,925,161	\$2,267,202	\$2,596,350
Vehicles			\$20,622	\$56,104	\$107,143	\$174,658	\$241,687	\$310,353	\$391,173	\$492,554	\$607,946	\$715,959	\$819,900
Other Retail			\$51,555	\$140,260	\$267,852	\$436,644	\$604,216	\$775,883	\$977,933	\$1,231,384	\$1,519,864	\$1,789,896	\$2,049,750
Total			\$1,106,723	\$3,010,911	\$5,750,007	\$9,373,289	\$12,970,511	\$16,655,612	\$20,992,970	\$26,433,718	\$32,626,412	\$38,423,110	\$44,001,294
<b>OFFICE (Constant Dollars)</b>													
	Vacancy												
Retail Sales	5.0%	\$0	\$0	\$45,262	\$151,627	\$239,322	\$343,424	\$378,785	\$478,503	\$561,954	\$743,709	\$861,106	\$978,504
Other Taxable Sales	5.0%	\$0	\$0	\$211,236	\$707,640	\$1,116,909	\$1,602,752	\$1,767,780	\$2,233,158	\$2,622,624	\$3,470,868	\$4,018,761	\$4,566,654
Total		\$0	\$0	\$256,498	\$859,267	\$1,356,231	\$1,946,176	\$2,146,565	\$2,711,661	\$3,184,578	\$4,214,577	\$4,879,867	\$5,545,158
<b>PART 2: ON-SITE RETAILERS</b>													
<b>On-Site Retailers - SF Occupied</b>													
<b>Community Retailers</b>													
	Vacancy												
Convenience Goods	5.0%	0	0	0	0	0	0	0	0	0	35,625	71,250	106,875
Shopper Goods	5.0%	0	0	0	0	0	0	0	0	0	7,125	14,250	21,375
Eating and Drinking	5.0%	0	0	0	0	0	0	0	0	0	4,750	9,500	14,250
Building Material & Garden	0.0%	0	0	0	0	0	0	0	0	0	0	0	0
Total Square Feet Occupied		0	0	0	0	0	0	0	0	0	47,500	95,000	142,500
<b>Regional Retailers</b>													
Convenience Goods	5.0%	0	0	2,375	4,750	8,788	11,163	15,913	15,913	24,225	26,600	31,350	36,100
Shopper Goods	0.0%	0.000	0	32,500	65,000	120,250	152,750	217,750	217,750	331,500	364,000	429,000	494,000
Eating and Drinking	5.0%	0.000	0	4,750	9,500	17,575	22,325	31,825	31,825	48,450	53,200	62,700	72,200
Building Material & Garden	0.0%	0.000	0	10,000	20,000	37,000	47,000	67,000	67,000	102,000	112,000	132,000	152,000
Total Square Feet Occupied		0.000	0	49,625	99,250	183,613	233,238	332,488	332,488	506,175	555,800	655,050	754,300

TABLE 10: REVENUE DETAIL		SALES TAX REVENUES ATTRIBUTABLE TO OPEN SPACE FUND											
Construction Year		1	2	3	4	5	6	7	8	9	10	11	12
<b>TAXABLE SALES GENERATED BY ON-SITE RETAILERS - CONSTANT DOLLARS</b>													
<b>Community Retailers</b>	<i>Sales PSF</i>												
Convenience Goods	\$120	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,275,000	\$8,550,000	\$12,825,000
Shopper Goods	\$300	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,137,500	\$4,275,000	\$6,412,500
Eating and Drinking	\$325	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,543,750	\$3,087,500	\$4,631,250
Building Material & Garden		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total Taxable Sales</b>		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7,956,250	\$15,912,500	\$23,868,750
<b>Regional Retailers</b>													
Convenience Goods	\$300	\$0	\$0	\$712,500	\$1,425,000	\$2,636,250	\$3,348,750	\$4,773,750	\$4,773,750	\$7,267,500	\$7,980,000	\$9,405,000	\$10,830,000
Shopper Goods	\$275	\$0	\$0	\$8,937,500	\$17,875,000	\$33,068,750	\$42,006,250	\$59,881,250	\$59,881,250	\$91,162,500	\$100,100,000	\$117,975,000	\$135,850,000
Eating and Drinking	\$325	\$0	\$0	\$1,543,750	\$3,087,500	\$5,711,875	\$7,255,625	\$10,343,125	\$10,343,125	\$15,746,250	\$17,290,000	\$20,377,500	\$23,465,000
Building Material & Garden	\$200	\$0	\$0	\$2,000,000	\$4,000,000	\$7,400,000	\$9,400,000	\$13,400,000	\$13,400,000	\$20,400,000	\$22,400,000	\$26,400,000	\$30,400,000
<b>Total Taxable Sales</b>		\$0	\$0	\$13,193,750	\$26,387,500	\$48,816,875	\$62,010,625	\$88,398,125	\$88,398,125	\$134,576,250	\$147,770,000	\$174,157,500	\$200,545,000
<b>All On-Site Retailers</b>													
Convenience Goods		\$0	\$0	\$712,500	\$1,425,000	\$2,636,250	\$3,348,750	\$4,773,750	\$4,773,750	\$7,267,500	\$12,255,000	\$17,955,000	\$23,655,000
Shopper Goods		\$0	\$0	\$8,937,500	\$17,875,000	\$33,068,750	\$42,006,250	\$59,881,250	\$59,881,250	\$91,162,500	\$102,237,500	\$122,250,000	\$142,262,500
Eating and Drinking		\$0	\$0	\$1,543,750	\$3,087,500	\$5,711,875	\$7,255,625	\$10,343,125	\$10,343,125	\$15,746,250	\$18,833,750	\$23,465,000	\$28,096,250
Building Materials & Garden		\$0	\$0	\$2,000,000	\$4,000,000	\$7,400,000	\$9,400,000	\$13,400,000	\$13,400,000	\$20,400,000	\$22,400,000	\$26,400,000	\$30,400,000
<b>Total Taxable Sales - Constant Dollars</b>		\$0	\$0	\$13,193,750	\$26,387,500	\$48,816,875	\$62,010,625	\$88,398,125	\$88,398,125	\$134,576,250	\$155,726,250	\$190,070,000	\$224,413,750
<b>PART 3: TAXABLE SALES &amp; SALES TAX REVENUES ATTRIBUTABLE TO PROSPER FARMS - Two Methods</b>													
<b>METHOD A: 100% ON-SITE RETAIL SALES ATTRIBUTED; 0% ON-SITE RESIDENTIAL ATTRIBUTED</b>													
<b>All On-Site Retailers</b>													
Convenience Goods		\$0	\$0	\$712,500	\$1,425,000	\$2,636,250	\$3,348,750	\$4,773,750	\$4,773,750	\$7,267,500	\$12,255,000	\$17,955,000	\$23,655,000
Shopper Goods		\$0	\$0	\$8,937,500	\$17,875,000	\$33,068,750	\$42,006,250	\$59,881,250	\$59,881,250	\$91,162,500	\$102,237,500	\$122,250,000	\$142,262,500
Eating and Drinking		\$0	\$0	\$1,543,750	\$3,087,500	\$5,711,875	\$7,255,625	\$10,343,125	\$10,343,125	\$15,746,250	\$18,833,750	\$23,465,000	\$28,096,250
Building Materials & Garden		\$0	\$0	\$2,000,000	\$4,000,000	\$7,400,000	\$9,400,000	\$13,400,000	\$13,400,000	\$20,400,000	\$22,400,000	\$26,400,000	\$30,400,000
<b>Total - Constant Dollars</b>		\$0	\$0	\$13,193,750	\$26,387,500	\$48,816,875	\$62,010,625	\$88,398,125	\$88,398,125	\$134,576,250	\$155,726,250	\$190,070,000	\$224,413,750
<b>Inflation Factor</b>		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
<b>Total - On-Site Retailers - Inflated Dollars</b>		\$0	\$0	\$13,193,750	\$26,387,500	\$48,816,875	\$62,010,625	\$88,398,125	\$88,398,125	\$134,576,250	\$155,726,250	\$190,070,000	\$224,413,750
<b>Sales Tax Revenue</b>	0.25%	\$0	\$0	\$32,984	\$65,969	\$122,042	\$155,027	\$220,995	\$220,995	\$336,441	\$389,316	\$475,175	\$561,034

TABLE 10: REVENUE DETAIL		SALES TAX REVENUES ATTRIBUTABLE TO OPEN SPACE FUND												
Construction Year		1	2	3	4	5	6	7	8	9	10	11	12	
<b>METHOD B: SHARED ATTRIBUTION</b>														
For residents, this method assumes 100% capture of convenience goods, utilities and motor vehicle purchases and 75% of shopper goods, eating and drinking and other retail.														
For office users, this method assumes 100% capture of their retail purchases and 0% of other taxable purchases.														
For the on-site retail, subtract purchases made by residents and office users from the top and assume the following for the remainder: 25% is cannibalized, 50% is attributable to new growth; 25% is inflow from outside Aurora.														
<b>RESIDENTS</b>	<b>% Capture</b>													
Convenience Goods	100.0%	\$0	\$123,733	\$336,624	\$642,858	\$1,047,945	\$1,450,119	\$1,862,118	\$2,347,040	\$2,955,323	\$3,647,673	\$4,295,751	\$4,919,499	
Shopper Goods	75.0%	\$0	\$402,132	\$1,094,027	\$2,089,288	\$3,405,822	\$4,712,887	\$6,051,884	\$7,627,881	\$9,604,798	\$11,854,938	\$13,961,192	\$15,988,048	
Eating & Drinking	75.0%	\$0	\$134,044	\$364,676	\$696,429	\$1,135,274	\$1,570,962	\$2,017,295	\$2,542,627	\$3,201,599	\$3,951,646	\$4,653,731	\$5,329,349	
Building & Gardening	75.0%	\$0	\$97,955	\$266,494	\$508,929	\$829,623	\$1,148,011	\$1,474,177	\$1,858,073	\$2,339,630	\$2,887,741	\$3,400,803	\$3,894,524	
Utilities	100.0%	\$0	\$65,304	\$177,662	\$339,286	\$553,082	\$765,341	\$982,785	\$1,238,716	\$1,559,754	\$1,925,161	\$2,267,202	\$2,596,350	
Vehicles	100.0%	\$0	\$20,622	\$56,104	\$107,143	\$174,658	\$241,687	\$310,353	\$391,173	\$492,554	\$607,946	\$715,959	\$819,900	
Other Retail	75.0%	\$0	\$38,667	\$105,195	\$200,893	\$327,483	\$453,162	\$581,912	\$733,450	\$923,538	\$1,139,898	\$1,342,422	\$1,537,312	
<b>Total</b>		\$0	\$882,457	\$2,400,781	\$4,584,827	\$7,473,888	\$10,342,170	\$13,280,523	\$16,738,960	\$21,077,196	\$26,015,004	\$30,637,061	\$35,084,882	
<b>ON-SITE OFFICE</b>	<b>% Capture</b>													
Retail Sales	100%	\$0	\$0	\$45,262	\$151,627	\$239,322	\$343,424	\$378,785	\$478,503	\$561,954	\$743,709	\$861,106	\$978,504	
Other Taxable Sales	0%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
<b>Total</b>		\$0	\$0	\$45,262	\$151,627	\$239,322	\$343,424	\$378,785	\$478,503	\$561,954	\$743,709	\$861,106	\$978,504	
<b>ON-SITE RETAIL</b>	<b>Cannibalization</b>													
On-Site Retail at 100% Sales		\$0	\$0	\$13,193,750	\$26,387,500	\$48,816,875	\$62,010,625	\$88,398,125	\$88,398,125	\$134,576,250	\$155,726,250	\$190,070,000	\$224,413,750	
Less Residents		\$0	(\$882,457)	(\$2,400,781)	(\$4,584,827)	(\$7,473,888)	(\$10,342,170)	(\$13,280,523)	(\$16,738,960)	(\$21,077,196)	(\$26,015,004)	(\$30,637,061)	(\$35,084,882)	
Less On-Site Office		\$0	\$0	(\$45,262)	(\$151,627)	(\$239,322)	(\$343,424)	(\$378,785)	(\$478,503)	(\$561,954)	(\$743,709)	(\$861,106)	(\$978,504)	
Interim Calculation		\$0	\$0	\$10,747,707	\$21,651,046	\$41,103,665	\$51,325,031	\$74,738,817	\$71,180,662	\$112,937,100	\$128,967,538	\$158,571,833	\$188,350,363	
Less Cannibalization	25.00%	\$0	\$0	(\$2,686,927)	(\$5,412,761)	(\$10,275,916)	(\$12,831,258)	(\$18,684,704)	(\$17,295,166)	(\$28,234,275)	(\$32,241,884)	(\$39,642,958)	(\$47,087,591)	
		\$0	\$0	\$8,060,780	\$16,238,284	\$30,827,749	\$38,493,773	\$56,054,113	\$53,385,497	\$84,702,825	\$96,725,653	\$118,928,875	\$141,262,772	
<b>Taxable Sales - Shared Attribution</b>														
From Residents		\$0	\$882,457	\$2,400,781	\$4,584,827	\$7,473,888	\$10,342,170	\$13,280,523	\$16,738,960	\$21,077,196	\$26,015,004	\$30,637,061	\$35,084,882	
From Office Users		\$0	\$0	\$45,262	\$151,627	\$239,322	\$343,424	\$378,785	\$478,503	\$561,954	\$743,709	\$861,106	\$978,504	
From On-Site Retail		\$0	\$0	\$8,060,780	\$16,238,284	\$30,827,749	\$38,493,773	\$56,054,113	\$53,385,497	\$84,702,825	\$96,725,653	\$118,928,875	\$141,262,772	
<b>Total - Constant Dollars</b>		\$0	\$882,457	\$10,506,823	\$20,974,739	\$38,540,959	\$49,179,367	\$69,713,421	\$70,602,959	\$106,341,975	\$123,484,366	\$150,427,042	\$177,326,159	
<b>Inflation Factor</b>		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
<b>Total Sales - Inflated Dollars</b>		\$0	\$882,457	\$10,506,823	\$20,974,739	\$38,540,959	\$49,179,367	\$69,713,421	\$70,602,959	\$106,341,975	\$123,484,366	\$150,427,042	\$177,326,159	
<b>Sales Tax Revenue - w/ Inflation</b>	0.25%	\$0	\$2,206	\$26,267	\$52,437	\$96,352	\$122,948	\$174,284	\$176,507	\$265,855	\$308,711	\$376,068	\$443,315	
<b>SALES TAX REVENUE METHODS COMPARED (with Inflation)</b>														
Construction Year		0	1	2	3	4	5	6	7	8	9	10	11	12
Method A - On-Site Retail		\$0	\$0	\$32,984	\$65,969	\$122,042	\$155,027	\$220,995	\$220,995	\$336,441	\$389,316	\$475,175	\$561,034	
Method B - Shared Attribution		\$0	\$2,206	\$26,267	\$52,437	\$96,352	\$122,948	\$174,284	\$176,507	\$265,855	\$308,711	\$376,068	\$443,315	

**TABLE 10: REVENUE DETAIL**

Construction Year	13	14	15	16	17	18	19	20	21	22	23	24	25
<b>PART 1: ON-SITE RESIDENTS AND ON-SIT</b>													
<b>Prosper Residents</b>													
Cumulative Units Occupied	2,581	2,803	3,016	3,272	3,515	3,848	4,076	4,451	4,740	5,096	5,330	5,567	5,767
Market Value Occupied - With Inflation	\$637,989,890	\$691,935,338	\$743,886,877	\$807,508,697	\$869,068,676	\$945,390,279	\$999,079,584	\$1,084,820,813	\$1,153,725,710	\$1,233,479,850	\$1,286,584,987	\$1,340,252,678	\$1,383,898,107
Real Estate Inflation Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Market Value Occupied Housing - Constant Dollars	\$637,989,890	\$691,935,338	\$743,886,877	\$807,508,697	\$869,068,676	\$945,390,279	\$999,079,584	\$1,084,820,813	\$1,153,725,710	\$1,233,479,850	\$1,286,584,987	\$1,340,252,678	\$1,383,898,107
Household Income - Constant Dollars	\$146,737,675	\$159,145,128	\$171,093,982	\$185,727,000	\$199,885,796	\$217,439,764	\$229,788,304	\$249,508,787	\$265,356,913	\$283,700,366	\$295,914,547	\$308,258,116	\$318,296,565
<b>Resident Expenditures: (Constant Dollars)</b>													
Convenience Goods	\$5,282,556	\$5,729,225	\$6,159,383	\$6,686,172	\$7,195,889	\$7,827,832	\$8,272,379	\$8,982,316	\$9,552,849	\$10,213,213	\$10,652,924	\$11,097,292	\$11,458,676
Shopper Goods	\$22,891,077	\$24,826,640	\$26,690,661	\$28,973,412	\$31,182,184	\$33,920,603	\$35,846,975	\$38,923,371	\$41,395,678	\$44,257,257	\$46,162,669	\$48,088,266	\$49,654,264
Eating & Drinking	\$7,630,359	\$8,275,547	\$8,896,887	\$9,657,804	\$10,394,061	\$11,306,868	\$11,948,992	\$12,974,457	\$13,798,559	\$14,752,419	\$15,387,556	\$16,029,422	\$16,551,421
Building & Gardening	\$5,576,032	\$6,047,515	\$6,501,571	\$7,057,626	\$7,595,660	\$8,262,711	\$8,731,956	\$9,481,334	\$10,083,563	\$10,780,614	\$11,244,753	\$11,713,808	\$12,095,269
Utilities	\$2,788,016	\$3,023,757	\$3,250,786	\$3,528,813	\$3,797,830	\$4,131,356	\$4,365,978	\$4,740,667	\$5,041,781	\$5,390,307	\$5,622,376	\$5,856,904	\$6,047,635
Vehicles	\$880,426	\$954,871	\$1,026,564	\$1,114,362	\$1,199,315	\$1,304,639	\$1,378,730	\$1,497,053	\$1,592,141	\$1,702,202	\$1,775,487	\$1,849,549	\$1,909,779
Other Retail	\$2,201,065	\$2,387,177	\$2,566,410	\$2,785,905	\$2,998,287	\$3,261,596	\$3,446,825	\$3,742,632	\$3,980,354	\$4,255,505	\$4,438,718	\$4,623,872	\$4,774,448
Total	\$47,249,531	\$51,244,731	\$55,092,262	\$59,804,094	\$64,363,276	\$70,015,604	\$73,991,834	\$80,341,829	\$85,444,926	\$91,351,518	\$95,284,484	\$99,259,113	\$102,491,494
<b>OFFICE (Constant Dollars)</b>													
Retail Sales	\$1,060,541	\$1,204,106	\$1,245,125	\$1,362,523	\$1,438,902	\$1,556,300	\$1,780,488	\$1,909,201	\$2,070,446	\$2,070,446	\$2,231,692	\$2,351,211	\$2,503,970
Other Taxable Sales	\$4,949,519	\$5,619,532	\$5,810,965	\$6,358,858	\$6,715,318	\$7,263,211	\$8,309,488	\$8,910,190	\$9,662,717	\$9,662,717	\$10,415,245	\$10,973,039	\$11,685,960
Total	\$6,010,060	\$6,823,639	\$7,056,090	\$7,721,380	\$8,154,220	\$8,819,511	\$10,089,976	\$10,819,391	\$11,733,164	\$11,733,164	\$12,646,936	\$13,324,251	\$14,189,930
<b>PART 2: ON-SITE RETAILERS</b>													
<b>On-Site Retailers - SF Occupied</b>													
<b>Community Retailers</b>													
Convenience Goods	142,500	142,500	178,125	178,125	213,750	249,375	249,375	302,813	302,813	302,813	338,438	338,438	391,875
Shopper Goods	28,500	28,500	35,625	35,625	42,750	49,875	49,875	60,563	60,563	60,563	67,688	67,688	78,375
Eating and Drinking	19,000	19,000	23,750	23,750	28,500	33,250	33,250	40,375	40,375	40,375	45,125	45,125	52,250
Building Material & Garden	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Square Feet Occupied	190,000	190,000	237,500	237,500	285,000	332,500	332,500	403,750	403,750	403,750	451,250	451,250	522,500
<b>Regional Retailers</b>													
Convenience Goods	38,475	42,038	44,413	44,413	44,413	44,413	45,600	47,975	50,350	55,100	57,475	61,038	65,788
Shopper Goods	526,500	575,250	607,750	607,750	607,750	607,750	624,000	656,500	689,000	754,000	786,500	835,250	900,250
Eating and Drinking	76,950	84,075	88,825	88,825	88,825	88,825	91,200	95,950	100,700	110,200	114,950	122,075	131,575
Building Material & Garden	162,000	177,000	187,000	187,000	187,000	187,000	192,000	202,000	212,000	232,000	242,000	257,000	277,000
Total Square Feet Occupied	803,925	878,363	927,988	927,988	927,988	927,988	952,800	1,002,425	1,052,050	1,151,300	1,200,925	1,275,363	1,374,613

**TABLE 10: REVENUE DETAIL**

Construction Year	13	14	15	16	17	18	19	20	21	22	23	24	25
<b>TAXABLE SALES GENERATED BY ON-SITE RETAILERS</b>													
<b>Community Retailers</b>													
Convenience Goods	\$17,100,000	\$17,100,000	\$21,375,000	\$21,375,000	\$25,650,000	\$29,925,000	\$29,925,000	\$36,337,500	\$36,337,500	\$36,337,500	\$40,612,500	\$40,612,500	\$47,025,000
Shopper Goods	\$8,550,000	\$8,550,000	\$10,687,500	\$10,687,500	\$12,825,000	\$14,962,500	\$14,962,500	\$18,168,750	\$18,168,750	\$18,168,750	\$20,306,250	\$20,306,250	\$23,512,500
Eating and Drinking	\$6,175,000	\$6,175,000	\$7,718,750	\$7,718,750	\$9,262,500	\$10,806,250	\$10,806,250	\$13,121,875	\$13,121,875	\$13,121,875	\$14,665,625	\$14,665,625	\$16,981,250
Building Material & Garden	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Taxable Sales	\$31,825,000	\$31,825,000	\$39,781,250	\$39,781,250	\$47,737,500	\$55,693,750	\$55,693,750	\$67,628,125	\$67,628,125	\$67,628,125	\$75,584,375	\$75,584,375	\$87,518,750
<b>Regional Retailers</b>													
Convenience Goods	\$11,542,500	\$12,611,250	\$13,323,750	\$13,323,750	\$13,323,750	\$13,323,750	\$13,680,000	\$14,392,500	\$15,105,000	\$16,530,000	\$17,242,500	\$18,311,250	\$19,736,250
Shopper Goods	\$144,787,500	\$158,193,750	\$167,131,250	\$167,131,250	\$167,131,250	\$167,131,250	\$171,600,000	\$180,537,500	\$189,475,000	\$207,350,000	\$216,287,500	\$229,693,750	\$247,568,750
Eating and Drinking	\$25,008,750	\$27,324,375	\$28,868,125	\$28,868,125	\$28,868,125	\$28,868,125	\$29,640,000	\$31,183,750	\$32,777,500	\$35,815,000	\$37,358,750	\$39,674,375	\$42,761,875
Building Material & Garden	\$32,400,000	\$35,400,000	\$37,400,000	\$37,400,000	\$37,400,000	\$37,400,000	\$38,400,000	\$40,400,000	\$42,400,000	\$46,400,000	\$48,400,000	\$51,400,000	\$55,400,000
Total Taxable Sales	\$213,738,750	\$233,529,375	\$246,723,125	\$246,723,125	\$246,723,125	\$246,723,125	\$253,320,000	\$266,513,750	\$279,707,500	\$306,095,000	\$319,288,750	\$339,079,375	\$365,466,875
<b>All On-Site Retailers</b>													
Convenience Goods	\$28,642,500	\$29,711,250	\$34,698,750	\$34,698,750	\$38,973,750	\$43,248,750	\$43,605,000	\$50,730,000	\$51,442,500	\$52,867,500	\$57,855,000	\$58,923,750	\$66,761,250
Shopper Goods	\$153,337,500	\$166,743,750	\$177,818,750	\$177,818,750	\$179,956,250	\$182,093,750	\$186,562,500	\$198,706,250	\$207,643,750	\$225,518,750	\$236,593,750	\$250,000,000	\$271,081,250
Eating and Drinking	\$31,183,750	\$33,499,375	\$36,586,875	\$36,586,875	\$38,130,625	\$39,674,375	\$40,446,250	\$44,305,625	\$45,849,375	\$48,936,875	\$52,024,375	\$54,340,000	\$59,743,125
Building Materials & Garden	\$32,400,000	\$35,400,000	\$37,400,000	\$37,400,000	\$37,400,000	\$37,400,000	\$38,400,000	\$40,400,000	\$42,400,000	\$46,400,000	\$48,400,000	\$51,400,000	\$55,400,000
Total Taxable Sales - Constant Dollars	\$245,563,750	\$265,354,375	\$286,504,375	\$286,504,375	\$294,460,625	\$302,416,875	\$309,013,750	\$334,141,875	\$347,335,625	\$373,723,125	\$394,873,125	\$414,663,750	\$452,985,625
<b>PART 3: TAXABLE SALES &amp; SALES TAX REVENUE</b>													
<b>METHOD A: 100% ON-SITE RETAIL SALES ATT</b>													
<b>All On-Site Retailers</b>													
Convenience Goods	\$28,642,500	\$29,711,250	\$34,698,750	\$34,698,750	\$38,973,750	\$43,248,750	\$43,605,000	\$50,730,000	\$51,442,500	\$52,867,500	\$57,855,000	\$58,923,750	\$66,761,250
Shopper Goods	\$153,337,500	\$166,743,750	\$177,818,750	\$177,818,750	\$179,956,250	\$182,093,750	\$186,562,500	\$198,706,250	\$207,643,750	\$225,518,750	\$236,593,750	\$250,000,000	\$271,081,250
Eating and Drinking	\$31,183,750	\$33,499,375	\$36,586,875	\$36,586,875	\$38,130,625	\$39,674,375	\$40,446,250	\$44,305,625	\$45,849,375	\$48,936,875	\$52,024,375	\$54,340,000	\$59,743,125
Building Materials & Garden	\$32,400,000	\$35,400,000	\$37,400,000	\$37,400,000	\$37,400,000	\$37,400,000	\$38,400,000	\$40,400,000	\$42,400,000	\$46,400,000	\$48,400,000	\$51,400,000	\$55,400,000
Total - Constant Dollars	\$245,563,750	\$265,354,375	\$286,504,375	\$286,504,375	\$294,460,625	\$302,416,875	\$309,013,750	\$334,141,875	\$347,335,625	\$373,723,125	\$394,873,125	\$414,663,750	\$452,985,625
<b>Inflation Factor</b>													
	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total - On-Site Retailers - Inflated Dollars	\$245,563,750	\$265,354,375	\$286,504,375	\$286,504,375	\$294,460,625	\$302,416,875	\$309,013,750	\$334,141,875	\$347,335,625	\$373,723,125	\$394,873,125	\$414,663,750	\$452,985,625
Sales Tax Revenue	\$613,909	\$663,386	\$716,261	\$716,261	\$736,152	\$756,042	\$772,534	\$835,355	\$868,339	\$934,308	\$987,183	\$1,036,659	\$1,132,464

TABLE 10: REVENUE DETAIL													
Construction Year	13	14	15	16	17	18	19	20	21	22	23	24	25
<b>METHOD B: SHARED ATTRIBUTION</b>													
For residents, this method assumes 100% capture of cor													
For office users, this method assumes 100% capture of t													
For the on-site retail, subtract purchases made by reside													
<b>RESIDENTS</b>													
Convenience Goods	\$5,282,556	\$5,729,225	\$6,159,383	\$6,686,172	\$7,195,889	\$7,827,832	\$8,272,379	\$8,982,316	\$9,552,849	\$10,213,213	\$10,652,924	\$11,097,292	\$11,458,676
Shopper Goods	\$17,168,308	\$18,619,980	\$20,017,996	\$21,730,059	\$23,386,638	\$25,440,452	\$26,885,232	\$29,192,528	\$31,046,759	\$33,192,943	\$34,622,002	\$36,066,200	\$37,240,698
Eating & Drinking	\$5,722,769	\$6,206,660	\$6,672,665	\$7,243,353	\$7,795,546	\$8,480,151	\$8,961,744	\$9,730,843	\$10,348,920	\$11,064,314	\$11,540,667	\$12,022,067	\$12,413,566
Building & Gardening	\$4,182,024	\$4,535,636	\$4,876,178	\$5,293,220	\$5,696,745	\$6,197,033	\$6,548,967	\$7,111,000	\$7,562,672	\$8,085,460	\$8,433,565	\$8,785,356	\$9,071,452
Utilities	\$2,788,016	\$3,023,757	\$3,250,786	\$3,528,813	\$3,797,830	\$4,131,356	\$4,365,978	\$4,740,667	\$5,041,781	\$5,390,307	\$5,622,376	\$5,856,904	\$6,047,635
Vehicles	\$880,426	\$954,871	\$1,026,564	\$1,114,362	\$1,199,315	\$1,304,639	\$1,378,730	\$1,497,053	\$1,592,141	\$1,702,202	\$1,775,487	\$1,849,549	\$1,909,779
Other Retail	\$1,650,799	\$1,790,383	\$1,924,807	\$2,089,429	\$2,248,715	\$2,446,197	\$2,585,118	\$2,806,974	\$2,985,265	\$3,191,629	\$3,329,039	\$3,467,904	\$3,580,836
Total	\$37,674,898	\$40,860,512	\$43,928,380	\$47,685,407	\$51,320,678	\$55,827,659	\$58,998,147	\$64,061,381	\$68,130,387	\$72,840,069	\$75,976,060	\$79,145,271	\$81,722,643
<b>ON-SITE OFFICE</b>													
Retail Sales	\$1,060,541	\$1,204,106	\$1,245,125	\$1,362,523	\$1,438,902	\$1,556,300	\$1,780,488	\$1,909,201	\$2,070,446	\$2,070,446	\$2,231,692	\$2,351,211	\$2,503,970
Other Taxable Sales	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$1,060,541	\$1,204,106	\$1,245,125	\$1,362,523	\$1,438,902	\$1,556,300	\$1,780,488	\$1,909,201	\$2,070,446	\$2,070,446	\$2,231,692	\$2,351,211	\$2,503,970
<b>ON-SITE RETAIL</b>													
On-Site Retail at 100% Sales	\$245,563,750	\$265,354,375	\$286,504,375	\$286,504,375	\$294,460,625	\$302,416,875	\$309,013,750	\$334,141,875	\$347,335,625	\$373,723,125	\$394,873,125	\$414,663,750	\$452,985,625
Less Residents	(\$37,674,898)	(\$40,860,512)	(\$43,928,380)	(\$47,685,407)	(\$51,320,678)	(\$55,827,659)	(\$58,998,147)	(\$64,061,381)	(\$68,130,387)	(\$72,840,069)	(\$75,976,060)	(\$79,145,271)	(\$81,722,643)
Less On-Site Office	(\$1,060,541)	(\$1,204,106)	(\$1,245,125)	(\$1,362,523)	(\$1,438,902)	(\$1,556,300)	(\$1,780,488)	(\$1,909,201)	(\$2,070,446)	(\$2,070,446)	(\$2,231,692)	(\$2,351,211)	(\$2,503,970)
Interim Calculation	\$206,828,311	\$223,289,757	\$241,330,870	\$237,456,445	\$241,701,045	\$245,032,916	\$248,235,115	\$268,171,293	\$277,134,791	\$298,812,610	\$316,665,374	\$333,167,268	\$368,759,012
Less Cannabilization	(\$51,707,078)	(\$55,822,439)	(\$60,332,718)	(\$59,364,111)	(\$60,425,261)	(\$61,258,229)	(\$62,058,779)	(\$67,042,823)	(\$69,283,698)	(\$74,703,152)	(\$79,166,343)	(\$83,291,817)	(\$92,189,753)
	\$155,121,233	\$167,467,318	\$180,998,153	\$178,092,334	\$181,275,784	\$183,774,687	\$186,176,336	\$201,128,470	\$207,851,093	\$224,109,457	\$237,499,030	\$249,875,451	\$276,569,259
<b>Taxable Sales - Shared Attribution</b>													
From Residents	\$37,674,898	\$40,860,512	\$43,928,380	\$47,685,407	\$51,320,678	\$55,827,659	\$58,998,147	\$64,061,381	\$68,130,387	\$72,840,069	\$75,976,060	\$79,145,271	\$81,722,643
From Office Users	\$1,060,541	\$1,204,106	\$1,245,125	\$1,362,523	\$1,438,902	\$1,556,300	\$1,780,488	\$1,909,201	\$2,070,446	\$2,070,446	\$2,231,692	\$2,351,211	\$2,503,970
From On-Site Retail	\$155,121,233	\$167,467,318	\$180,998,153	\$178,092,334	\$181,275,784	\$183,774,687	\$186,176,336	\$201,128,470	\$207,851,093	\$224,109,457	\$237,499,030	\$249,875,451	\$276,569,259
Total - Constant Dollars	\$193,856,672	\$209,531,936	\$226,171,657	\$227,140,264	\$234,035,364	\$241,158,646	\$246,954,971	\$267,099,052	\$278,051,927	\$299,019,973	\$315,706,782	\$331,371,933	\$360,795,872
Inflation Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total Sales - Inflated Dollars	\$193,856,672	\$209,531,936	\$226,171,657	\$227,140,264	\$234,035,364	\$241,158,646	\$246,954,971	\$267,099,052	\$278,051,927	\$299,019,973	\$315,706,782	\$331,371,933	\$360,795,872
Sales Tax Revenue - w/ Inflation	\$484,642	\$523,830	\$565,429	\$567,851	\$585,088	\$602,897	\$617,387	\$667,748	\$695,130	\$747,550	\$789,267	\$828,430	\$901,990
<b>SALES TAX REVENUE METHODS COMPARED (with Inflat</b>													
Construction Year	13	14	15	16	17	18	19	20	21	22	23	24	25
Method A - On-Site Retail	\$613,909	\$663,386	\$716,261	\$716,261	\$736,152	\$756,042	\$772,534	\$835,355	\$868,339	\$934,308	\$987,183	\$1,036,659	\$1,132,464
Method B - Shared Attribution	\$484,642	\$523,830	\$565,429	\$567,851	\$585,088	\$602,897	\$617,387	\$667,748	\$695,130	\$747,550	\$789,267	\$828,430	\$901,990

<b>TABLE 10: REVENUE DETAIL</b>							
<b>Construction Year</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>	<b>31</b>	<b>32</b>
<b>PART 1: ON-SITE RESIDENTS AND ON-SIT</b>							
<b>Prosper Residents</b>							
Cumulative Units Occupied	6,028	6,353	6,774	7,247	7,874	8,361	8,361
Market Value Occupied - With Inflation	\$1,443,357,642	\$1,520,000,705	\$1,615,187,473	\$1,719,488,163	\$1,851,999,517	\$1,951,019,750	\$1,951,019,750
Real Estate Inflation Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Market Value Occupied Housing - Constant Dollars	\$1,443,357,642	\$1,520,000,705	\$1,615,187,473	\$1,719,488,163	\$1,851,999,517	\$1,951,019,750	\$1,951,019,750
Household Income - Constant Dollars	\$331,972,258	\$349,600,162	\$371,493,119	\$395,482,277	\$425,959,889	\$448,734,543	\$448,734,543
<b>Resident Expenditures: (Constant Dollars)</b>							
Convenience Goods	\$11,951,001	\$12,585,606	\$13,373,752	\$14,237,362	\$15,334,556	\$16,154,444	\$16,154,444
Shopper Goods	\$51,787,672	\$54,537,625	\$57,952,927	\$61,695,235	\$66,449,743	\$70,002,589	\$70,002,589
Eating & Drinking	\$17,262,557	\$18,179,208	\$19,317,642	\$20,565,078	\$22,149,914	\$23,334,196	\$23,334,196
Building & Gardening	\$12,614,946	\$13,284,806	\$14,116,739	\$15,028,327	\$16,186,476	\$17,051,913	\$17,051,913
Utilities	\$6,307,473	\$6,642,403	\$7,058,369	\$7,514,163	\$8,093,238	\$8,525,956	\$8,525,956
Vehicles	\$1,991,834	\$2,097,601	\$2,228,959	\$2,372,894	\$2,555,759	\$2,692,407	\$2,692,407
Other Retail	\$4,979,584	\$5,244,002	\$5,572,397	\$5,932,234	\$6,389,398	\$6,731,018	\$6,731,018
Total	\$106,895,067	\$112,571,252	\$119,620,784	\$127,345,293	\$137,159,084	\$144,492,523	\$144,492,523
<b>OFFICE (Constant Dollars)</b>							
Retail Sales	\$2,911,326	\$3,177,240	\$3,630,282	\$3,794,074	\$4,092,165	\$4,317,343	\$4,317,343
Other Taxable Sales	\$13,587,082	\$14,828,093	\$16,942,431	\$17,706,840	\$19,098,026	\$20,148,924	\$20,148,924
Total	\$16,498,409	\$18,005,332	\$20,572,713	\$21,500,914	\$23,190,192	\$24,466,267	\$24,466,267
<b>PART 2: ON-SITE RETAILERS</b>							
<b>On-Site Retailers - SF Occupied</b>							
<b>Community Retailers</b>							
Convenience Goods	391,875	391,875	391,875	391,875	391,875	391,875	391,875
Shopper Goods	78,375	78,375	78,375	78,375	78,375	78,375	78,375
Eating and Drinking	52,250	52,250	52,250	52,250	52,250	52,250	52,250
Building Material & Garden	0	0	0	0	0	0	0
Total Square Feet Occupied	522,500	522,500	522,500	522,500	522,500	522,500	522,500
<b>Regional Retailers</b>							
Convenience Goods	68,163	70,538	76,475	76,475	81,225	88,113	88,113
Shopper Goods	932,750	965,250	1,046,500	1,046,500	1,111,500	1,205,750	1,205,750
Eating and Drinking	136,325	141,075	152,950	152,950	162,450	176,225	176,225
Building Material & Garden	287,000	297,000	322,000	322,000	342,000	371,000	371,000
Total Square Feet Occupied	1,424,238	1,473,863	1,597,925	1,597,925	1,697,175	1,841,088	1,841,088

<b>TABLE 10: REVENUE DETAIL</b>							
<b>Construction Year</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>	<b>31</b>	<b>32</b>
<b>TAXABLE SALES GENERATED BY ON-SITE RETA</b>							
<b>Community Retailers</b>							
Convenience Goods	\$47,025,000	\$47,025,000	\$47,025,000	\$47,025,000	\$47,025,000	\$47,025,000	\$47,025,000
Shopper Goods	\$23,512,500	\$23,512,500	\$23,512,500	\$23,512,500	\$23,512,500	\$23,512,500	\$23,512,500
Eating and Drinking	\$16,981,250	\$16,981,250	\$16,981,250	\$16,981,250	\$16,981,250	\$16,981,250	\$16,981,250
Building Material & Garden	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Taxable Sales	\$87,518,750	\$87,518,750	\$87,518,750	\$87,518,750	\$87,518,750	\$87,518,750	\$87,518,750
<b>Regional Retailers</b>							
Convenience Goods	\$20,448,750	\$21,161,250	\$22,942,500	\$22,942,500	\$24,367,500	\$26,433,750	\$26,433,750
Shopper Goods	\$256,506,250	\$265,443,750	\$287,787,500	\$287,787,500	\$305,662,500	\$331,581,250	\$331,581,250
Eating and Drinking	\$44,305,625	\$45,849,375	\$49,708,750	\$49,708,750	\$52,796,250	\$57,273,125	\$57,273,125
Building Material & Garden	\$57,400,000	\$59,400,000	\$64,400,000	\$64,400,000	\$68,400,000	\$74,200,000	\$74,200,000
Total Taxable Sales	\$378,660,625	\$391,854,375	\$424,838,750	\$424,838,750	\$451,226,250	\$489,488,125	\$489,488,125
<b>All On-Site Retailers</b>							
Convenience Goods	\$67,473,750	\$68,186,250	\$69,967,500	\$69,967,500	\$71,392,500	\$73,458,750	\$73,458,750
Shopper Goods	\$280,018,750	\$288,956,250	\$311,300,000	\$311,300,000	\$329,175,000	\$355,093,750	\$355,093,750
Eating and Drinking	\$61,286,875	\$62,830,625	\$66,690,000	\$66,690,000	\$69,777,500	\$74,254,375	\$74,254,375
Building Materials & Garden	\$57,400,000	\$59,400,000	\$64,400,000	\$64,400,000	\$68,400,000	\$74,200,000	\$74,200,000
Total Taxable Sales - Constant Dollars	\$466,179,375	\$479,373,125	\$512,357,500	\$512,357,500	\$538,745,000	\$577,006,875	\$577,006,875
<b>PART 3: TAXABLE SALES &amp; SALES TAX RE</b>							
<b>METHOD A: 100% ON-SITE RETAIL SALES ATT</b>							
<b>All On-Site Retailers</b>							
Convenience Goods	\$67,473,750	\$68,186,250	\$69,967,500	\$69,967,500	\$71,392,500	\$73,458,750	\$73,458,750
Shopper Goods	\$280,018,750	\$288,956,250	\$311,300,000	\$311,300,000	\$329,175,000	\$355,093,750	\$355,093,750
Eating and Drinking	\$61,286,875	\$62,830,625	\$66,690,000	\$66,690,000	\$69,777,500	\$74,254,375	\$74,254,375
Building Materials & Garden	\$57,400,000	\$59,400,000	\$64,400,000	\$64,400,000	\$68,400,000	\$74,200,000	\$74,200,000
Total - Constant Dollars	\$466,179,375	\$479,373,125	\$512,357,500	\$512,357,500	\$538,745,000	\$577,006,875	\$577,006,875
<i>Inflation Factor</i>	<i>1.000</i>						
Total - On Site Retailers - Inflated Dollars	\$466,179,375	\$479,373,125	\$512,357,500	\$512,357,500	\$538,745,000	\$577,006,875	\$577,006,875
Sales Tax Revenue	\$1,165,448	\$1,198,433	\$1,280,894	\$1,280,894	\$1,346,863	\$1,442,517	\$1,442,517

<b>TABLE 10: REVENUE DETAIL</b>							
<b>Construction Year</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>	<b>31</b>	<b>32</b>
<b>METHOD B: SHARED ATTRIBUTION</b>							
For residents, this method assumes 100% capture of cor							
For office users, this method assumes 100% capture of t							
For the on-site retail, subtract purchases made by reside							
<b>RESIDENTS</b>							
Convenience Goods	\$11,951,001	\$12,585,606	\$13,373,752	\$14,237,362	\$15,334,556	\$16,154,444	\$16,154,444
Shopper Goods	\$38,840,754	\$40,903,219	\$43,464,695	\$46,271,426	\$49,837,307	\$52,501,941	\$52,501,941
Eating & Drinking	\$12,946,918	\$13,634,406	\$14,488,232	\$15,423,809	\$16,612,436	\$17,500,647	\$17,500,647
Building & Gardening	\$9,461,209	\$9,963,605	\$10,587,554	\$11,271,245	\$12,139,857	\$12,788,934	\$12,788,934
Utilities	\$6,307,473	\$6,642,403	\$7,058,369	\$7,514,163	\$8,093,238	\$8,525,956	\$8,525,956
Vehicles	\$1,991,834	\$2,097,601	\$2,228,959	\$2,372,894	\$2,555,759	\$2,692,407	\$2,692,407
Other Retail	\$3,734,688	\$3,933,002	\$4,179,298	\$4,449,176	\$4,792,049	\$5,048,264	\$5,048,264
Total	\$85,233,877	\$89,759,842	\$95,380,858	\$101,540,075	\$109,365,202	\$115,212,594	\$115,212,594
<b>ON-SITE OFFICE</b>							
Retail Sales	\$2,911,326	\$3,177,240	\$3,630,282	\$3,794,074	\$4,092,165	\$4,317,343	\$4,317,343
Other Taxable Sales	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$2,911,326	\$3,177,240	\$3,630,282	\$3,794,074	\$4,092,165	\$4,317,343	\$4,317,343
<b>ON-SITE RETAIL</b>							
On-Site Retail at 100% Sales	\$466,179,375	\$479,373,125	\$512,357,500	\$512,357,500	\$538,745,000	\$577,006,875	\$577,006,875
Less Residents	(\$85,233,877)	(\$89,759,842)	(\$95,380,858)	(\$101,540,075)	(\$109,365,202)	(\$115,212,594)	(\$115,212,594)
Less On-Site Office	(\$2,911,326)	(\$3,177,240)	(\$3,630,282)	(\$3,794,074)	(\$4,092,165)	(\$4,317,343)	(\$4,317,343)
Interim Calculation	\$378,034,172	\$386,436,044	\$413,346,359	\$407,023,352	\$425,287,633	\$457,476,938	\$457,476,938
Less Cannabilization	(\$94,508,543)	(\$96,609,011)	(\$103,336,590)	(\$101,755,838)	(\$106,321,908)	(\$114,369,235)	(\$114,369,235)
	\$283,525,629	\$289,827,033	\$310,009,770	\$305,267,514	\$318,965,725	\$343,107,704	\$343,107,704
<b>Taxable Sales - Shared Attribution</b>							
From Residents	\$85,233,877	\$89,759,842	\$95,380,858	\$101,540,075	\$109,365,202	\$115,212,594	\$115,212,594
From Office Users	\$2,911,326	\$3,177,240	\$3,630,282	\$3,794,074	\$4,092,165	\$4,317,343	\$4,317,343
From On-Site Retail	\$283,525,629	\$289,827,033	\$310,009,770	\$305,267,514	\$318,965,725	\$343,107,704	\$343,107,704
Total - Constant Dollars	\$371,670,832	\$382,764,114	\$409,020,910	\$410,601,662	\$432,423,092	\$462,637,640	\$462,637,640
Inflation Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total Sales - Inflated Dollars	\$371,670,832	\$382,764,114	\$409,020,910	\$410,601,662	\$432,423,092	\$462,637,640	\$462,637,640
Sales Tax Revenue - w/ Inflation	\$929,177	\$956,910	\$1,022,552	\$1,026,504	\$1,081,058	\$1,156,594	\$1,156,594
<b>SALES TAX REVENUE METHODS COMPARED (with Inflat</b>							
Construction Year	26	27	28	29	30	31	32
Method A - On-Site Retail	\$1,165,448	\$1,198,433	\$1,280,894	\$1,280,894	\$1,346,863	\$1,442,517	\$1,442,517
Method B - Shared Attribution	\$929,177	\$956,910	\$1,022,552	\$1,026,504	\$1,081,058	\$1,156,594	\$1,156,594

<b>TABLE 11:</b>		<b>LODGING REVENUE DETAIL</b>																			
Year of Occupancy		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
<b>Cumulative Square Feet Complete</b>																					
Cumulative Number of Rooms Occupied		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Room Revenue (No Inflation)		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>SALES TAX ATTRIBUTABLE TO OPEN SPACE</b>		<i>No Inflation</i>																			
<b>0.25%</b>		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

<b>TABLE 11:</b>													
Year of Occupancy	21	22	23	24	25	26	27	28	29	30	31	32	33
<b>Cumulative Square Feet Complete</b>													
Cumulative Number of Rooms Occupied	300	300	300	300	300	300	300	300	300	300	300	300	300
Room Revenue (No Inflation)	\$6,022,500	\$6,022,500	\$6,022,500	\$6,022,500	\$6,022,500	\$6,022,500	\$6,022,500	\$6,022,500	\$6,022,500	\$6,022,500	\$6,022,500	\$6,022,500	\$6,022,500
<b>SALES TAX ATTRIBUTABLE TO OPEN SPACE</b>													
<b>0.25%</b>	\$15,056	\$15,056	\$15,056	\$15,056	\$15,056	\$15,056	\$15,056	\$15,056	\$15,056	\$15,056	\$15,056	\$15,056	\$15,056

<b>TABLE 12: REVENUE DETAIL: USE TAX on BUILDING MATERIALS</b>				
Land Use	Construction Costs PSF	Building Materials PSF	Use Tax Rate	
Residential - Low Density	\$111.00	\$55.50	0.25%	
Residential - Medium Density	\$105.00	\$52.50	0.25%	
Residential - High Density	\$99.00	\$49.50	0.25%	
Office	\$100.00	\$50.00	0.25%	
Office - Flex	\$65.00	\$32.50	0.25%	
Retail - Community Scale	\$85.00	\$42.50	0.25%	
Retail - Regional Scale	\$85.00	\$42.50	0.25%	
Service	\$70.00	\$35.00	0.25%	
Industrial	\$60.00	\$30.00	0.25%	
Lodging - 150 rooms	\$125.00	\$62.50	0.25%	
Medical & Educational	\$200.00	\$100.00	0.25%	
K-12 & Community College	\$129.00	\$64.50	0.25%	

Year of Construction	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
<b>ANNUAL SQUARE FEET BUILT</b>																			
<b>Residential:</b>																			
Low-Density	35,000	87,500	133,000	150,500	171,500	101,500	105,000	143,500	140,000	105,000	140,000	70,000	94,500	105,000	126,000	161,000	70,000	14,000	31,500
Medium Density	90,000	135,000	189,000	234,000	216,000	264,600	318,600	394,200	475,200	453,600	441,000	259,200	307,800	279,000	365,400	324,000	441,000	369,000	541,800
High Density	0	0	0	27,000	27,000	36,000	45,000	54,000	54,000	58,500	30,600	22,500	31,500	36,000	27,000	27,000	76,500	27,900	76,500
<b>Office:</b>																			
Office:	0	16,000	37,600	31,000	36,800	12,500	35,250	29,500	64,250	41,500	41,500	29,000	50,750	14,500	41,500	27,000	41,500	79,250	45,500
Office - Flex	0	0	36,800	30,000	66,400	25,000	37,500	51,000	79,500	67,000	67,000	42,000	73,500	21,000	42,000	21,000	42,000	31,500	42,000
<b>Retail:</b>																			
Community-Scale	0	0	0	0	0	0	0	0	50,000	50,000	50,000	50,000	0	50,000	0	50,000	50,000	0	75,000
Regional Scale	0	50,000	50,000	85,000	50,000	100,000	0	175,000	50,000	100,000	100,000	50,000	75,000	50,000	0	0	0	25,000	50,000
<b>Service</b>	0	24,000	24,000	24,000	0	0	13,500	0	13,500	0	0	0	35,000	0	42,500	12,500	12,500	12,500	16,500
<b>Industrial</b>	0	0	21,600	15,000	36,800	12,500	18,750	29,500	47,750	41,500	41,500	29,000	50,750	14,500	29,000	14,500	29,000	21,750	29,000
<b>Lodging</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Medical &amp; Educational</b>	0	0	0	0	0	50,000	70,000	100,000	100,000	0	100,000	0	100,000	0	100,000	0	0	0	100,000
<b>Education - K-12</b>	0	77,400	0	0	0	0	0	77,400	0	0	0	0	0	0	0	77,400	140,000	0	0
<b>TOTAL SQUARE FEET BUILT</b>	125,000	467,300	492,000	596,500	604,500	602,100	643,600	1,131,500	1,074,200	917,100	1,011,600	551,700	818,800	570,000	773,400	791,800	1,042,500	580,900	1,007,800
<b>BUILDING MATERIALS VALUES &amp; USE TAX REVENUES</b>																			
<i>Real Estate Inflation Factor</i>	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
<b>Residential:</b>																			
Low-Density	\$4,856	\$12,141	\$18,454	\$20,882	\$23,796	\$14,083	\$14,569	\$19,911	\$19,425	\$14,569	\$19,425	\$9,713	\$13,117	\$14,569	\$17,483	\$22,339	\$9,713	\$1,943	\$4,371
Medium Density	\$11,813	\$17,719	\$24,806	\$30,713	\$28,350	\$34,729	\$41,816	\$51,739	\$62,370	\$59,535	\$57,881	\$34,020	\$40,399	\$36,619	\$47,959	\$42,525	\$57,881	\$48,431	\$71,111
High Density	\$0	\$0	\$0	\$3,341	\$3,341	\$4,455	\$5,569	\$6,683	\$6,683	\$7,239	\$3,787	\$2,784	\$3,898	\$4,455	\$3,341	\$3,341	\$9,467	\$3,453	\$9,467
<b>Office:</b>																			
Office:	\$0	\$2,000	\$4,700	\$3,875	\$4,600	\$1,563	\$4,406	\$3,688	\$8,031	\$5,188	\$5,188	\$3,625	\$6,344	\$1,813	\$5,188	\$3,375	\$5,188	\$9,906	\$5,688
Office - Flex	\$0	\$0	\$2,990	\$2,438	\$5,395	\$2,031	\$3,047	\$4,144	\$6,459	\$5,444	\$5,444	\$3,413	\$5,972	\$1,706	\$3,413	\$1,706	\$3,413	\$2,559	\$3,413
<b>Retail:</b>																			
Community-Scale	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,313	\$5,313	\$5,313	\$5,313	\$0	\$5,313	\$0	\$5,313	\$5,313	\$0	\$7,969
Regional Scale	\$0	\$5,313	\$5,313	\$9,031	\$5,313	\$10,625	\$0	\$18,594	\$5,313	\$10,625	\$10,625	\$5,313	\$7,969	\$5,313	\$0	\$0	\$0	\$2,656	\$5,313
<b>Service</b>	\$0	\$2,100	\$2,100	\$2,100	\$0	\$0	\$1,181	\$0	\$1,181	\$0	\$0	\$0	\$3,063	\$0	\$3,719	\$1,094	\$1,094	\$1,094	\$1,444
<b>Industrial</b>	\$0	\$0	\$1,620	\$1,125	\$2,760	\$938	\$1,406	\$2,213	\$3,581	\$3,113	\$3,113	\$2,175	\$3,806	\$1,088	\$2,175	\$1,088	\$2,175	\$1,631	\$2,175
<b>Lodging</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Medical Campus</b>	\$0	\$0	\$0	\$0	\$0	\$12,500	\$17,500	\$25,000	\$25,000	\$0	\$25,000	\$0	\$25,000	\$0	\$25,000	\$0	\$0	\$0	\$25,000
<b>Education - K-12</b>	\$0	\$12,481	\$0	\$0	\$0	\$0	\$0	\$12,481	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$12,481	\$22,575	\$0	\$0
<b>OPEN SPACE USE TAX</b>	\$16,669	\$51,753	\$59,983	\$73,504	\$73,554	\$80,923	\$89,494	\$144,450	\$143,356	\$111,024	\$135,774	\$66,354	\$109,562	\$70,874	\$108,276	\$93,261	\$116,817	\$71,673	\$135,949

**TABLE 12:**

Land Use	20	21	22	23	24	25	26	27	28	29	30	31	32	TOTAL
Residential - Low Density														
Residential - Medium Density														
Residential - High Density														
Office														
Office - Flex														
Retail - Community Scale														
Retail - Regional Scale														
Service														
Industrial														
Lodging - 150 rooms														
Medical & Educational														
K-12 & Community College														
<b>Year of Construction</b>	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>	<b>31</b>	<b>32</b>	<b>TOTAL</b>
<b>ANNUAL SQUARE FEET BUILT</b>														
<b>Residential:</b>														
Low-Density	52,500	59,500	52,500	56,000	52,500	122,500	210,000	273,000	343,000	451,500	217,000	0	0	3,874,500
Medium Density	448,200	446,400	291,600	293,400	207,000	261,000	318,600	324,000	266,400	234,000	244,800	0	0	9,433,800
High Density	36,000	99,000	63,000	63,000	72,000	85,500	94,500	166,500	226,800	360,900	283,500	0	0	2,207,700
<b>Office:</b>														
Office:	57,000	0	57,000	42,250	54,000	144,000	94,000	160,150	57,900	105,375	79,600	0	0	1,526,175
Office - Flex	86,000	0	86,000	65,500	42,000	97,000	42,000	107,500	42,000	90,950	52,500	0	0	1,486,650
<b>Retail:</b>														
Community-Scale	0	0	50,000	0	75,000	0	0	0	0	0	0	0	0	550,000
Regional Scale	50,000	100,000	50,000	75,000	100,000	50,000	50,000	125,000	0	100,000	145,000	0	0	1,855,000
<b>Service</b>	0	0	0	0	0	0	15,000	61,100	91,100	31,650	31,650	0	0	461,000
<b>Industrial</b>	57,000	0	57,000	42,250	29,000	64,000	29,000	71,250	29,000	62,025	36,250	0	0	959,175
<b>Lodging</b>	150,000	0	0	0	0	0	0	0	0	0	0	0	0	150,000
<b>Medical &amp; Educational</b>	0	125,000	0	125,000	0	150,000	0	0	0	0	0	0	0	1,120,000
<b>Education - K-12</b>	0	0	0	77,400	0	0	77,400	0	0	0	0	0	0	527,000
<b>TOTAL SQUARE FEET BUILT</b>	<b>936,700</b>	<b>829,900</b>	<b>707,100</b>	<b>917,200</b>	<b>631,500</b>	<b>974,000</b>	<b>1,007,900</b>	<b>1,288,500</b>	<b>1,056,200</b>	<b>1,436,400</b>	<b>1,090,300</b>	<b>0</b>	<b>0</b>	<b>24,151,000</b>
<b>BUILDING MATERIALS VALUES &amp;</b>														
<i>Real Estate Inflation Factor</i>	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
<b>Residential:</b>														
Low-Density	\$7,284	\$8,256	\$7,284	\$7,770	\$7,284	\$16,997	\$29,138	\$37,879	\$47,591	\$62,646	\$30,109	\$0	\$0	\$537,587
Medium Density	\$58,826	\$58,590	\$38,273	\$38,509	\$27,169	\$34,256	\$41,816	\$42,525	\$34,965	\$30,713	\$32,130	\$0	\$0	\$1,238,186
High Density	\$4,455	\$12,251	\$7,796	\$7,796	\$8,910	\$10,581	\$11,694	\$20,604	\$28,067	\$44,661	\$35,083	\$0	\$0	\$273,203
<b>Office:</b>														
Office:	\$7,125	\$0	\$7,125	\$5,281	\$6,750	\$18,000	\$11,750	\$20,019	\$7,238	\$13,172	\$9,950	\$0	\$0	\$190,772
Office - Flex	\$6,988	\$0	\$6,988	\$5,322	\$3,413	\$7,881	\$3,413	\$8,734	\$3,413	\$7,390	\$4,266	\$0	\$0	\$120,790
<b>Retail:</b>														
Community-Scale	\$0	\$0	\$5,313	\$0	\$7,969	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$58,438
Regional Scale	\$5,313	\$10,625	\$5,313	\$7,969	\$10,625	\$5,313	\$5,313	\$13,281	\$0	\$10,625	\$15,406	\$0	\$0	\$197,094
<b>Service</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$1,313	\$5,346	\$7,971	\$2,769	\$2,769	\$0	\$0	\$40,338
<b>Industrial</b>	\$4,275	\$0	\$4,275	\$3,169	\$2,175	\$4,800	\$2,175	\$5,344	\$2,175	\$4,652	\$2,719	\$0	\$0	\$71,938
<b>Lodging</b>	\$23,438	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$23,438
<b>Medical Campus</b>	\$0	\$31,250	\$0	\$31,250	\$0	\$37,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$280,000
<b>Education - K-12</b>	\$0	\$0	\$0	\$12,481	\$0	\$0	\$12,481	\$0	\$0	\$0	\$0	\$0	\$0	\$84,979
<b>OPEN SPACE USE TAX</b>	<b>\$117,703</b>	<b>\$120,972</b>	<b>\$82,366</b>	<b>\$119,546</b>	<b>\$74,294</b>	<b>\$135,328</b>	<b>\$119,091</b>	<b>\$153,733</b>	<b>\$131,419</b>	<b>\$176,627</b>	<b>\$132,432</b>	<b>\$0</b>	<b>\$0</b>	<b>\$3,116,761</b>

TABLE 13: BUILDING PERMIT FEE and PLAN REVIEW FEE									
REVENUE DETAIL	Avg. Bldg. Square Feet	Construction Costs PSF	Avg. Building Const. Value	Building + Permit Fee	Plan Review Fee	Bldg + Plan Review Fee	Fee PSF	Source Table	
<b>Residential:</b>									
Low Density	3,500	\$111.00	\$388,500	\$2,610	\$1,696	\$4,306	\$1.23	Table 3	
Medium Density	1,800	\$105.00	\$189,000	\$1,492	\$970	\$2,462	\$1.37	Table 3	
High Density	900	\$99.00	\$89,100	\$933	\$606	\$1,539	\$1.71	Table 3	
<b>Office:</b>									
Office:	40,000	\$100.00	\$4,000,000	\$15,059	\$9,788	\$24,847	\$0.62	Table 3	
Office Flex	50,000	\$65.00	\$3,250,000	\$12,697	\$8,253	\$20,949	\$0.42	Table 3	
<b>Retail:</b>									
Community-Scale	50,000	\$85.00	\$4,250,000	\$15,847	\$10,300	\$26,147	\$0.52	Table 3	
Regional Scale	75,000	\$85.00	\$6,375,000	\$22,540	\$14,651	\$37,191	\$0.50	Table 3	
<b>Service</b>	25,000	\$70.00	\$1,750,000	\$7,972	\$5,181	\$13,153	\$0.53	Table 3	
<b>Industrial</b>	30,000	\$60.00	\$1,800,000	\$8,129	\$5,284	\$13,413	\$0.45	Table 3	
<b>Lodging</b>	67,500	\$125.00	\$8,437,500	\$29,037	\$18,874	\$47,911	\$0.71	Table 3	
<b>Medical Campus</b>	100,000	\$200.00	\$20,000,000	\$65,459	\$42,548	\$108,007	\$1.08	Table 3	
<b>Education - K-12</b>	100,000	\$129.00	\$12,900,000	\$43,094	\$28,011	\$71,105	\$0.71	Table 3	
SOURCE of Building Permit and Plan Check Fee Schedules, 2012 - Arapahoe County Public Works and Development - Building Division.									

Construction Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
<b>Annual Square Feet Built</b>																			
<b>Residential:</b>																			
Low-Density	35,000	87,500	133,000	150,500	171,500	101,500	105,000	143,500	140,000	105,000	140,000	70,000	94,500	105,000	126,000	161,000	70,000	14,000	31,500
Medium Density	90,000	135,000	189,000	234,000	216,000	264,600	318,600	394,200	475,200	453,600	441,000	259,200	307,800	279,000	365,400	324,000	441,000	369,000	541,800
High Density	0	0	0	27,000	27,000	36,000	45,000	54,000	54,000	58,500	30,600	22,500	31,500	36,000	27,000	27,000	76,500	27,900	76,500
<b>Office:</b>																			
Office:	0	16,000	37,600	31,000	36,800	12,500	35,250	29,500	64,250	41,500	41,500	29,000	50,750	14,500	41,500	27,000	41,500	79,250	45,500
Office - Flex	0	0	36,800	30,000	66,400	25,000	37,500	51,000	79,500	67,000	67,000	42,000	73,500	21,000	42,000	21,000	42,000	31,500	42,000
<b>Retail:</b>																			
Community-Scale	0	0	0	0	0	0	0	0	50,000	50,000	50,000	50,000	0	50,000	0	50,000	50,000	0	75,000
Regional Scale	0	50,000	50,000	85,000	50,000	100,000	0	175,000	50,000	100,000	100,000	50,000	75,000	50,000	0	0	0	25,000	50,000
<b>Service</b>	0	24,000	24,000	24,000	0	0	13,500	0	13,500	0	0	0	35,000	0	42,500	12,500	12,500	12,500	16,500
<b>Industrial</b>	0	0	21,600	15,000	36,800	12,500	18,750	74,500	47,750	41,500	41,500	29,000	50,750	14,500	29,000	14,500	29,000	21,750	29,000
<b>Lodging</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Medical Campus</b>	0	0	0	0	0	50,000	70,000	100,000	100,000	0	100,000	0	100,000	0	100,000	0	0	0	100,000
<b>K-12 Schools</b>	0	77,400	0	0	0	0	0	77,400	0	0	0	0	0	0	0	77,400	140,000	0	0
<b>Building Permit &amp; Plan Review Fees</b> <i>Note: Real estate inflation factor is applied but no fee increase factor is applied.</i>																			
Real Estate Inflation Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
<b>Residential:</b>																			
Low-Density	\$43,050	\$107,625	\$163,590	\$185,115	\$210,945	\$124,845	\$129,150	\$176,505	\$172,200	\$129,150	\$172,200	\$86,100	\$116,235	\$129,150	\$154,980	\$198,030	\$86,100	\$17,220	\$38,745
Medium Density	\$123,300	\$184,950	\$258,930	\$320,580	\$295,920	\$362,502	\$436,482	\$540,054	\$651,024	\$621,432	\$604,170	\$355,104	\$421,686	\$382,230	\$500,598	\$443,880	\$604,170	\$505,530	\$742,266
High Density	\$0	\$0	\$0	\$46,170	\$46,170	\$61,560	\$76,950	\$92,340	\$92,340	\$100,035	\$52,326	\$38,475	\$53,865	\$61,560	\$46,170	\$46,170	\$130,815	\$47,709	\$130,815
<b>Office:</b>																			
Office:	\$0	\$9,920	\$23,312	\$19,220	\$22,816	\$7,750	\$21,855	\$18,290	\$39,835	\$25,730	\$25,730	\$17,980	\$31,465	\$8,990	\$25,730	\$16,740	\$25,730	\$49,135	\$28,210
Office - Flex	\$0	\$0	\$15,456	\$12,600	\$27,888	\$10,500	\$15,750	\$21,420	\$33,390	\$28,140	\$28,140	\$17,640	\$30,870	\$8,820	\$17,640	\$8,820	\$17,640	\$13,230	\$17,640
<b>Retail:</b>																			
Community Scale	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$26,000	\$26,000	\$26,000	\$26,000	\$0	\$26,000	\$0	\$26,000	\$26,000	\$0	\$39,000
Regional Scale	\$0	\$25,000	\$25,000	\$42,500	\$25,000	\$50,000	\$0	\$87,500	\$25,000	\$50,000	\$50,000	\$25,000	\$37,500	\$25,000	\$0	\$0	\$0	\$12,500	\$25,000
<b>Service</b>	\$0	\$12,720	\$12,720	\$12,720	\$0	\$0	\$7,155	\$0	\$7,155	\$0	\$0	\$0	\$18,550	\$0	\$22,525	\$6,625	\$6,625	\$6,625	\$8,745
<b>Industrial</b>	\$0	\$0	\$9,720	\$6,750	\$16,560	\$5,625	\$8,438	\$13,275	\$21,488	\$18,675	\$18,675	\$13,050	\$22,838	\$6,525	\$13,050	\$6,525	\$13,050	\$9,788	\$13,050
<b>Lodging</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Medical Campus</b>	\$0	\$0	\$0	\$0	\$0	\$54,000	\$75,600	\$108,000	\$108,000	\$0	\$108,000	\$0	\$108,000	\$0	\$108,000	\$0	\$0	\$0	\$108,000
<b>Education - K-12</b>	\$0	\$54,954	\$0	\$0	\$0	\$0	\$0	\$54,954	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$54,954	\$99,400	\$0	\$0
<b>Total</b>	\$166,350	\$395,169	\$508,728	\$645,655	\$645,299	\$676,782	\$771,380	\$1,112,338	\$1,176,432	\$999,162	\$1,085,241	\$579,349	\$841,009	\$648,275	\$888,693	\$807,744	\$1,009,530	\$661,737	\$1,151,471

**TABLE 13:  
REVENUE DETAIL**

Construction Year	20	21	22	23	24	25	26	27	28	29	30	31	32
<b>Annual Square Feet Built</b>													
<b>Residential:</b>													
Low-Density	52,500	59,500	52,500	56,000	52,500	122,500	210,000	273,000	343,000	451,500	217,000	0	0
Medium Density	448,200	446,400	291,600	293,400	207,000	261,000	318,600	324,000	266,400	234,000	244,800	0	0
High Density	36,000	99,000	63,000	63,000	72,000	85,500	94,500	166,500	226,800	360,900	283,500	0	0
<b>Office:</b>													
Office:	57,000	0	57,000	42,250	54,000	144,000	94,000	160,150	57,900	105,375	79,600	0	0
Office - Flex	86,000	0	86,000	65,500	42,000	97,000	42,000	107,500	42,000	90,950	52,500	0	0
<b>Retail:</b>													
Community-Scale	0	0	50,000	0	75,000	0	0	0	0	0	0	0	0
Regional Scale	50,000	100,000	50,000	75,000	100,000	50,000	50,000	125,000	0	100,000	145,000	0	0
<b>Service</b>													
Industrial	57,000	0	57,000	42,250	29,000	64,000	29,000	71,250	29,000	62,025	36,250	0	0
Lodging	150,000	0	0	0	0	0	0	0	0	0	0	0	0
Medical Campus	0	125,000	0	125,000	0	150,000	0	0	0	0	0	0	0
K-12 Schools	0	0	0	77,400	0	0	77,400	0	0	0	0	0	0
<b>Building Permit &amp; Plan Review Fees</b>													
Real Estate Inflation Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
<b>Residential:</b>													
Low-Density	\$64,575	\$73,185	\$64,575	\$68,880	\$64,575	\$150,675	\$258,300	\$335,790	\$421,890	\$555,345	\$266,910	\$0	\$0
Medium Density	\$614,034	\$611,568	\$399,492	\$401,958	\$283,590	\$357,570	\$436,482	\$443,880	\$364,968	\$320,580	\$335,376	\$0	\$0
High Density	\$61,560	\$169,290	\$107,730	\$107,730	\$123,120	\$146,205	\$161,595	\$284,715	\$387,828	\$617,139	\$484,785	\$0	\$0
<b>Office:</b>													
Office:	\$35,340	\$0	\$35,340	\$26,195	\$33,480	\$89,280	\$58,280	\$99,293	\$35,898	\$65,333	\$49,352	\$0	\$0
Office - Flex	\$36,120	\$0	\$36,120	\$27,510	\$17,640	\$40,740	\$17,640	\$45,150	\$17,640	\$38,199	\$22,050	\$0	\$0
<b>Retail:</b>													
Community Scale	\$0	\$0	\$26,000	\$0	\$39,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Regional Scale	\$25,000	\$50,000	\$25,000	\$37,500	\$50,000	\$25,000	\$25,000	\$62,500	\$0	\$50,000	\$72,500	\$0	\$0
<b>Service</b>													
Industrial	\$25,650	\$0	\$25,650	\$19,013	\$13,050	\$28,800	\$13,050	\$32,063	\$13,050	\$27,911	\$16,313	\$0	\$0
Lodging	\$106,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Medical Campus	\$0	\$135,000	\$0	\$135,000	\$0	\$162,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Education - K-12	\$0	\$0	\$0	\$54,954	\$0	\$0	\$54,954	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	\$968,779	\$1,039,043	\$719,907	\$878,740	\$624,455	\$1,000,270	\$1,033,251	\$1,335,774	\$1,289,557	\$1,691,281	\$1,264,060	\$0	\$0

TABLE 14: REVENUE DETAIL - LICENSES, PERMITS, CHARGES, FEES, & MISC.							UNINCORPORATED COUNTY			COUNTYWIDE						
Revenue	Account Number	Department	Division	Fund	Countywide or Uninc?	Allocated To:	2012	Business	Households	Both	Business	Households	Both	Motor Vehicle	Actual Values	Assd Value
<b>Licenses &amp; Permits - 2012</b>																
Cable TV Fees	42360	Adm Serv	General Admin	General	uninc	residents	\$775,000		\$775,000							
Public Trustee Revenue	43570	Adm Serv	General Admin	General	county	Both	\$500,000						\$500,000			
Marriage Licenses	42330	Clerk & Rec.		General	county	residents	\$25,000					\$25,000				
Convenience Fees	42355	Clerk & Rec.		General	county	residents	\$1,200					\$1,200				
Animal Licenses	42210	Dev. Serv.	Animal Control	General	uninc	residents	\$19,000		\$19,000							
Ambulance Licenses	42211	Sheriff	Emergency	General	uninc	both	\$1,750			\$1,750						
Elevator Inspection Fees	42206	Dev. Serv.	Building	General	uninc	business	\$36,930	\$36,930								
Bench Permits	42220	Dev. Serv.	Building	General	uninc	business	\$5,000	\$5,000								
Bus Shelter Permits	42221	Dev. Serv.		General	uninc	business	\$1,000	\$1,000								
E-470 Fees	42265	Clerk & Rec.	Motor Vehicle	General	uninc	vehicles	\$220,000							\$220,000		
Drivers License - County Proportion	42284	Clerk & Rec.	Motor Vehicle	General	county	residents	\$262,600					\$262,600				
Special Permit Fees	42350	Clerk & Rec.	Motor Vehicle	General	county	vehicles	\$275,000							\$275,000		
Convenience Fees Collected	42355	Clerk & Rec.	Motor Vehicle	General	county	vehicles	\$49,500							\$49,500		
Motor Vehicle License Fee	42375	Clerk & Rec.	Motor Vehicle	General	county	vehicles	\$1,555,000							\$1,555,000		
Personalized Plate Fee	42376	Clerk & Rec.	Motor Vehicle	General	county	vehicles	\$14,400							\$14,400		
Generic Plates	42377	Clerk & Rec.	Motor Vehicle	General	county	vehicles	\$600							\$600		
Fence Permits	42270	Dev. Serv.	Building	General	uninc	both	\$7,000			\$7,000						
Liquor Licenses	42280	County Atty	Admin	General	uninc	business	\$6,500	\$6,500								
Liquor License Application Fees	42281	County Atty		General	uninc	business	\$3,500	\$3,500								
Misc. Reimbursable	49908	County Atty	Admin	General	uninc	both	\$72,235			\$72,235						
Arbitrator Fees	44110	County Atty	B of Equalization	General	uninc	both	\$1,800			\$1,800						
Sign Permits	42290	Dev. Serv.		General	uninc	business	\$5,000	\$5,000								
Mtr Vehicle Registration \$1.50	42200	Road & Bridge	Administration	R&B	county	vehicles	\$255,000							\$255,000		
TOTAL							\$4,093,015	\$57,930	\$794,000	\$82,785	\$0	\$288,800	\$500,000	\$2,369,500		\$0
<b>Charges for Services - 2012</b>																
Personal Property Fail to File	44172	Assessor		General	county	both	\$55,000							\$55,000		
Photo Copies	44525	Assessor		General	county	both	\$10,000							\$10,000		
Photo Copies / Research	44525	Clerk & Rec		General	county	both	\$35,550							\$35,550		
Passport Fee	44114	Clerk & Rec		General	county	both	\$95,000							\$95,000		
House Bill 1031 Fee	44217	Clerk & Rec		General	county	both	\$250,000							\$250,000		
Land Recording Fee	44219	Clerk & Rec		General	county	both	\$2,920,000							\$2,920,000		
Remote - Indices	44225	Clerk & Rec		General	county	both	\$7,200							\$7,200		
Remote - Image	44228	Clerk & Rec		General	county	both	\$23,700							\$23,700		
Survey Plats	44273	Clerk & Rec		General	county	both	\$3,500							\$3,500		
Miscellaneous Elections	44299	Clerk & Rec		General	county	residents	\$5,500					\$5,500				
Miscellaneous Elections	44299	Clerk & Rec		General	county	residents	\$820,000					\$820,000				
Late Fees	44112	Clerk & Rec	Motor Vehicle	General	county	vehicles	\$475,000							\$475,000		
Rapid Screen Fee	44116	Clerk & Rec	Motor Vehicle	General	county	vehicles	\$29,000							\$29,000		
Duplicate Registration Fees	44212	Clerk & Rec	Motor Vehicle	General	county	vehicles	\$15,000							\$15,000		
Emission Program	44215	Clerk & Rec	Motor Vehicle	General	county	vehicles	\$280,000							\$280,000		
Report Fees	44222	Clerk & Rec	Motor Vehicle	General	county	vehicles	\$300							\$300		
Motor Vehicle Chattel Fee	44237	Clerk & Rec	Motor Vehicle	General	county	vehicles	\$491,000							\$491,000		
Motor Vehicle Title Fees	44246	Clerk & Rec	Motor Vehicle	General	county	vehicles	\$625,000							\$625,000		
Dealer Training	44247	Clerk & Rec	Motor Vehicle	General	county	vehicles	\$1,400							\$1,400		
VIN Verification	44248	Clerk & Rec	Motor Vehicle	General	county	vehicles	\$52,000							\$52,000		
Administrative Fees	44255	Clerk & Rec	Motor Vehicle	General	county	vehicles	\$300							\$300		
Sales Tax RTD Fee	44262	Clerk & Rec	Motor Vehicle	General	county	vehicles	\$54,000							\$54,000		
State Sales Tax - Vehicles	44265	Clerk & Rec	Motor Vehicle	General	county	vehicles	\$60,000							\$60,000		
Cty Spc PurpOwnTxColle	44270	Clerk & Rec	Motor Vehicle	General	county	vehicles	\$295,000							\$295,000		
POST Vendor Fee	44290	Clerk & Rec	Motor Vehicle	General	county	vehicles	\$12,000							\$12,000		
Miscellaneous Motor Vehicle	44298	Clerk & Rec	Motor Vehicle	General	county	vehicles	\$30,000							\$30,000		
Photo Copies / Research	44525	Clerk & Rec	Motor Vehicle	General	county	vehicles	\$1,000							\$1,000		
Private Autopsies	44171	Coroner	Operations	General	county	residents	\$6,000					\$6,000				
Coroner Histology Lab Fees	44173	Coroner	Operations	General	county	residents	\$350					\$350				
Photo Copies / Research	44525	Coroner	Operations	General	county	residents	\$2,000					\$2,000				
Advertising Fee - Delinquent Taxes	44403	Treasurer		R & B	county	Assd Val										

**TABLE 14: REVENUE DETAIL - LICENSES, PERMITS, CHARGES, FEES, & MISC.**

Revenue	Account Number	Department	Division	Fund	Countywide or Uninc?	Allocated To	2012	UNINCORPORATED COUNTY			COUNTYWIDE			Motor Vehicle	Actual Values	Assd Value
								Business	Households	Both	Business	Households	Both			
Comprehensive Plan Book	44480	Dev. Serv.	Planning	General	county	both	\$180									
Photo Copies / Research	44525	Dev. Serv.	Planning	General	county	both	\$240									
Photo Copies / Research	44525	Dev. Serv.	Building	General	county	both	\$300									
Miscellaneous Fees	44199	Sheriff	Administration	General	county	inmates	\$10,000									
Restitutions	44460	Sheriff	Administration	General	county	inmates	\$5,000									
Concealed Weapon Permit Fee	44439	Sheriff	Prof. Std.	General	county	residents	\$65,000					\$65,000				
Dispatch Fees	44170	Sheriff	Communications	General	county	both	\$208,300									\$208,300
Miscellaneous Reimbursable	49908	Sheriff	Communications	General	county	both	\$104,800									\$104,800
Sex Offender Registration	44416	Sheriff	Investigations	General	county	residents	\$10,500					\$10,500				
Auction Proceeds	49995	Sheriff	Property & Evidence	General	county	both	\$3,000									\$3,000
Inmate Medical Fees	44445	Sheriff	JCDF Medical	General	county	inmates	\$21,500									\$21,500
Records Fees	44441	Sheriff	Info. Services	General	county	both	\$55,000									\$55,000
Miscellaneous Fees	44199	Sheriff	Cvl Prcs/Fugit Trans	General	county	both	\$550									\$550
Extra Duty Revenue	44311	Sheriff	Cvl Prcs/Fugit Trans	General	county	both	\$3,500									\$3,500
Mileage Fees	44426	Sheriff	Cvl Prcs/Fugit Trans	General	county	both	\$16,000									\$16,000
Service Fees	44427	Sheriff	Cvl Prcs/Fugit Trans	General	county	both	\$465,000									\$465,000
Extradition Reimbursement	44455	Sheriff	Cvl Prcs/Fugit Trans	General	county	both	\$3,200									\$3,200
Sheriff Booking Fees	44413	Sheriff	Detention Booking	General	county	inmates	\$200,000									\$200,000
Home Detention	44176	Sheriff	Detention		county	inmates	\$11,500									\$11,500
Bonding Fee	44425	Sheriff	Detention		county	inmates	\$65,000									\$65,000
Staff Meals	44430	Sheriff	Detention		county	inmates	\$8,000									\$8,000
Work Release	44507	Sheriff	Detention		county	inmates	\$255,000									\$255,000
Refund Comp and Bond Agent Fees	44150	Treasurer	Administration	General	county	both	\$1,000									\$1,000
Administrative Fees	44255	Treasurer	Administration	General	county	both	\$30,000									\$30,000
Advertising Fee - Delinquent Taxes	44503	Treasurer	Administration	General	county	both	\$30,000									\$30,000
Certification of Taxes Due Ma	44506	Treasurer	Administration	General	county	both	\$2,000									\$2,000
Certificate of Taxes Due	44510	Treasurer	Administration	General	county	Assd Val	\$275,000									\$275,000
Tax Sale Publication	44512	Treasurer	Administration	General	county	Assd Val	\$25									\$25
Copy Notice and Receipts	44520	Treasurer	Administration	General	county	Assd Val	\$75									\$75
Photo Copies / Research	44525	Treasurer	Administration	General	county	Assd Val	\$11,000									\$11,000
Bonus and Sub-On fees	44530	Treasurer	Administration	General	county	Assd Val	\$120,000									\$120,000
Treasurer Notary Fees	44535	Treasurer	Administration	General	county	Assd Val	\$40									\$40
Tax Collection Fees	44540	Treasurer	Administration	General	county	Assd Val	\$5,300,000									\$5,300,000
Treasurer's Deed Fees	44545	Treasurer	Administration	General	county	Assd Val	\$1,000									\$1,000
<b>TOTAL</b>							\$13,936,510	\$0	\$0	\$0	\$0	\$909,350	\$4,899,020	\$2,421,000	\$407,140	\$5,300,000
<b>Fees &amp; Fines - 2012</b>																
No Insurance Revenue HB 04-1193	45520	Clerk & Rec.	Motor Vehicle	General	county	M.V.	\$139,500									\$139,500
Useful Public Service Fees	45547	Central Services	Judicial Services Adm	General	county	both	\$220,000									\$220,000
Alternative Services Fees	45570	Central Services	Judicial Services Adm	General	county	both	\$210,000									\$210,000
Pretrial Supervisory Fees	45575	Central Services	Judicial Services Adm	General	county	both	\$25,000									\$25,000
Multi-Offender DUI	45507	Sheriff	Detention	General	county	inmates	\$25,920									\$25,920
Animal Control Fines	45506	Dev Serv	Animal Control	General	uninc	residents	\$1,500		\$1,500							
<b>TOTAL</b>							\$621,920	\$0	\$1,500	\$0	\$0	\$0	\$480,920	\$139,500		\$0
<b>Interest on Investments</b>																
Interest on Investments	46605	Treasurer	Administration	General	county	both	\$3,200,500									
Interest on Investments	46605					Park Dist										
Investment Earnings	46700	Central Services	DRCOG				\$2,500									
<b>Miscellaneous - 2012</b>																
Misc. Fees and Charges	4999	Communication	Print Services		county	both	\$4,400									\$4,400
Refund of Expenses - Prior Year	49965	Dist. Atty	Admin	General	county	both	\$350,000									\$350,000
Purchase Card Rebate	49998	Finance	Admin	General	county	both	\$20,000									\$20,000
Miscellaneous Reimbursement	49908	Central Services	Judicial Serv. Admin	General	county	both	\$15,000									\$15,000
<b>TOTAL</b>							\$385,000	\$0	\$0	\$0	\$0	\$0	\$385,000	\$0		\$0

TABLE 15		EXPENDITURES																
Construction Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
<b>Information About Prosper</b>																		
Equivalent Dwelling Units	Table 4	0	57	191	394	654	923	1,198	1,522	1,975	2,486	2,926	3,381	3,632	4,008	4,270	4,634	
Actual Value (inflated \$)	Year Assessed in \$000, Table 2	\$1,573	\$19,664	\$60,949	\$121,359	\$196,314	\$270,513	\$359,535	\$457,733	\$605,081	\$755,932	\$879,926	\$1,020,516	\$1,097,315	\$1,211,998	\$1,291,495	\$1,400,152	
Cumulative Occupied Housing Units	Table 2	0	57	152	288	481	670	875	1,119	1,423	1,769	2,099	2,402	2,581	2,803	3,016	3,272	
Cumulative Population	Table 2	0	153	407	772	1,288	1,795	2,344	2,996	3,808	4,732	5,612	6,422	6,902	7,493	8,064	8,747	
Cumulative Lane Miles Complete	Table 2	0.000	25.836	43.168	56.262	56.262	77.252	87.762	94.636	96.596	123.444	138.716	138.716	153.262	155.552	171.300	171.300	
Expenditure Category	Metric	Denominator	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
<i>Forecasted Inflation Factor from 2012 current dollars:</i>			1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
<b>GENERAL FUND:</b>																		
Administrative Services	\$52.23	Per EDU	\$0	\$2,977	\$9,976	\$20,579	\$34,158	\$48,208	\$62,572	\$79,494	\$103,154	\$129,844	\$152,825	\$176,590	\$189,699	\$209,338	\$223,022	\$242,034
Assessor	\$0.08	Per \$1,000 Actual Value	\$126	\$1,573	\$4,876	\$9,709	\$15,705	\$21,641	\$28,763	\$36,619	\$48,406	\$60,475	\$70,394	\$81,641	\$87,785	\$96,960	\$103,320	\$112,012
BOCC	\$2.99	Per EDU	\$0	\$170	\$571	\$1,178	\$1,955	\$2,760	\$3,582	\$4,551	\$5,905	\$7,433	\$8,749	\$10,109	\$10,860	\$11,984	\$12,767	\$13,856
Central Services	\$7.50	Per EDU	\$0	\$428	\$1,433	\$2,955	\$4,905	\$6,923	\$8,985	\$11,415	\$14,813	\$18,645	\$21,945	\$25,358	\$27,240	\$30,060	\$32,025	\$34,755
Clerk & Recorder	\$25.51	Per EDU	\$0	\$1,454	\$4,872	\$10,051	\$16,684	\$23,546	\$30,561	\$38,826	\$50,382	\$63,418	\$74,642	\$86,249	\$92,652	\$102,244	\$108,928	\$118,213
Communications Services	\$3.56	Per EDU	\$0	\$203	\$680	\$1,403	\$2,328	\$3,286	\$4,265	\$5,418	\$7,031	\$8,850	\$10,417	\$12,036	\$12,930	\$14,268	\$15,201	\$16,497
Community Resources	\$0.75	Per EDU	\$0	\$43	\$143	\$296	\$491	\$692	\$899	\$1,142	\$1,481	\$1,865	\$2,195	\$2,536	\$2,724	\$3,006	\$3,203	\$3,476
Coroner	\$4.21	Per EDU	\$0	\$240	\$804	\$1,659	\$2,753	\$3,886	\$5,044	\$6,408	\$8,315	\$10,466	\$12,318	\$14,234	\$15,291	\$16,874	\$17,977	\$19,509
County Attorney	\$7.97	Per EDU	\$0	\$454	\$1,522	\$3,140	\$5,212	\$7,356	\$9,548	\$12,130	\$15,741	\$19,813	\$23,320	\$26,947	\$28,947	\$31,944	\$34,032	\$36,933
District Attorney	\$38.50	Per EDU	\$0	\$2,195	\$7,354	\$15,169	\$25,179	\$35,536	\$46,123	\$58,597	\$76,038	\$95,711	\$112,651	\$130,169	\$139,832	\$154,308	\$164,395	\$178,409
Facilities & Fleet Management	\$24.45	Per EDU	\$0	\$1,394	\$4,670	\$9,633	\$15,990	\$22,567	\$29,291	\$37,213	\$48,289	\$60,783	\$71,541	\$82,665	\$88,802	\$97,996	\$104,402	\$113,301
Finance	\$9.41	Per EDU	\$0	\$536	\$1,797	\$3,708	\$6,154	\$8,685	\$11,273	\$14,322	\$18,585	\$23,393	\$27,534	\$31,815	\$34,177	\$37,715	\$40,181	\$43,606
Human Resources	\$4.52	Per EDU	\$0	\$258	\$863	\$1,781	\$2,956	\$4,172	\$5,415	\$6,879	\$8,927	\$11,237	\$13,226	\$15,282	\$16,417	\$18,116	\$19,300	\$20,946
Information Technology	\$38.43	Per EDU	\$0	\$2,191	\$7,340	\$15,141	\$25,133	\$35,471	\$46,039	\$58,490	\$75,899	\$95,537	\$112,446	\$129,932	\$139,578	\$154,027	\$164,096	\$178,085
Office of Strategic Management	\$0.37	Per EDU	\$0	\$21	\$71	\$146	\$242	\$342	\$443	\$563	\$731	\$920	\$1,083	\$1,251	\$1,344	\$1,483	\$1,580	\$1,715
Open Spaces & Intergov. Relations	\$0.24	Per EDU	\$0	\$14	\$46	\$95	\$157	\$222	\$288	\$365	\$474	\$597	\$702	\$811	\$872	\$962	\$1,025	\$1,112
Public Works in General Fund	\$12.71	Per EDU	\$0	\$724	\$2,428	\$5,008	\$8,312	\$11,731	\$15,227	\$19,345	\$25,102	\$31,597	\$37,189	\$42,973	\$46,163	\$50,947	\$54,277	\$58,898
Sheriff's Office in General Fund	\$148.02	Per EDU	\$0	\$8,437	\$28,272	\$58,320	\$96,805	\$136,622	\$177,328	\$225,286	\$292,340	\$367,978	\$433,107	\$500,456	\$537,609	\$593,264	\$632,045	\$685,925
Treasurer	-\$26.09	Per EDU	\$0	-\$1,487	-\$4,983	-\$10,279	-\$17,063	-\$24,081	-\$31,256	-\$39,709	-\$51,528	-\$64,860	-\$76,339	-\$88,210	-\$94,759	-\$104,569	-\$111,404	-\$120,901
Tri-County Health	\$6.29	Per Person	\$0	\$962	\$2,560	\$4,856	\$8,102	\$11,291	\$14,744	\$18,845	\$23,952	\$29,764	\$35,299	\$40,394	\$43,414	\$47,131	\$50,723	\$55,019
Total - General Fund			\$126	\$22,786	\$75,294	\$154,545	\$256,160	\$360,855	\$469,132	\$596,200	\$774,037	\$973,465	\$1,145,243	\$1,323,237	\$1,421,576	\$1,568,053	\$1,671,088	\$1,813,398
<b>ARAPAHOE LAW ENFORCEMENT AUTHORITY FUND</b>																		
Expenditures	\$143.34	Per EDU	\$0	\$8,170	\$27,378	\$56,476	\$93,744	\$132,303	\$171,721	\$218,163	\$283,097	\$356,343	\$419,413	\$484,633	\$520,611	\$574,507	\$612,062	\$664,238
<b>ROAD &amp; BRIDGE FUND</b>																		
Public Works Admin in R&B	\$6.66	Per EDU	\$0	\$380	\$1,272	\$2,624	\$4,356	\$6,147	\$7,979	\$10,137	\$13,154	\$16,557	\$19,487	\$22,517	\$24,189	\$26,693	\$28,438	\$30,862
Public Works Direct in R&B	\$6,334.56	Per Lane Mile	\$0	\$163,660	\$273,450	\$356,395	\$356,395	\$489,357	\$555,934	\$599,477	\$611,893	\$781,963	\$878,705	\$878,705	\$970,847	\$985,353	\$1,085,110	\$1,085,110
Total - Road & Bridge Fund			\$0	\$164,039	\$274,722	\$359,019	\$360,751	\$495,505	\$563,912	\$609,614	\$625,047	\$798,520	\$898,192	\$901,222	\$995,036	\$1,012,047	\$1,113,548	\$1,115,973
<b>SOCIAL SERVICES FUND</b>																		
Property Tax & SO Revenues = Expenditures; See Table 8 - Revenues																		
<b>DEVELOPMENTAL DISABILITY FUND</b>																		
Property Tax Revenues = Expenditures; See Table 8 - Revenues																		
<b>CAPITAL EXPENDITURES FUND</b>																		
Property Tax & SO Revenues = Expenditures; See Table 8 - Revenues																		
<b>OPEN SPACE FUND</b>																		
Sales & Use Tax Revenues = Expenditures; See Table 8 - Revenues																		

<b>TABLE 15</b>																
<b>Construction Year</b>	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
<b>Information About Prosper</b>																
Equivalent Dwelling Units	4,935	5,358	5,667	6,179	6,620	7,055	7,409	7,799	8,107	8,602	9,043	9,686	10,248	11,038	11,656	11,656
Actual Value (inflated \$)	\$1,482,505	\$1,580,557	\$1,663,632	\$1,813,185	\$1,928,021	\$2,061,306	\$2,155,516	\$2,272,696	\$2,365,594	\$2,507,584	\$2,619,826	\$2,776,912	\$2,913,235	\$3,093,649	\$3,226,597	\$3,226,597
Cumulative Occupied Housing Units	3,515	3,848	4,076	4,451	4,740	5,096	5,330	5,567	5,767	6,028	6,353	6,774	7,247	7,874	8,361	8,361
Cumulative Population	9,398	10,285	10,893	11,893	12,663	13,613	14,239	14,870	15,402	16,100	16,970	18,096	19,363	21,042	22,344	22,344
Cumulative Lane Miles Complete	171.300	194.992	209.032	209.032	224.558	236.858	236.858	240.448	240.448	240.448	244.964	244.964	248.568	248.568	248.568	248.568
<b>Expenditure Category</b>																
<i>Forecasted Inflation Factor from 2012 current</i>	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
<b>GENERAL FUND:</b>																
Administrative Services	\$257,755	\$279,848	\$295,987	\$322,729	\$345,763	\$368,483	\$386,972	\$407,342	\$423,429	\$449,282	\$472,316	\$505,900	\$535,253	\$576,515	\$608,793	\$608,793
Assessor	\$118,600	\$126,445	\$133,091	\$145,055	\$154,242	\$164,904	\$172,441	\$181,816	\$189,247	\$200,607	\$209,586	\$222,153	\$233,059	\$247,492	\$258,128	\$258,128
BOCC	\$14,756	\$16,020	\$16,944	\$18,475	\$19,794	\$21,094	\$22,153	\$23,319	\$24,240	\$25,120	\$27,039	\$28,961	\$30,642	\$33,004	\$34,851	\$34,851
Central Services	\$37,013	\$40,185	\$42,503	\$46,343	\$49,650	\$52,913	\$55,568	\$58,493	\$60,803	\$64,515	\$67,823	\$72,645	\$76,860	\$82,785	\$87,420	\$87,420
Clerk & Recorder	\$125,892	\$136,683	\$144,565	\$157,626	\$168,876	\$179,973	\$189,004	\$198,952	\$206,810	\$219,437	\$230,687	\$247,090	\$261,426	\$281,579	\$297,345	\$297,345
Communications Services	\$17,569	\$19,074	\$20,175	\$21,997	\$23,567	\$25,116	\$26,376	\$27,764	\$28,861	\$30,623	\$32,193	\$34,482	\$36,483	\$39,295	\$41,495	\$41,495
Community Resources	\$3,701	\$4,019	\$4,250	\$4,634	\$4,965	\$5,291	\$5,557	\$5,849	\$6,080	\$6,452	\$6,782	\$7,265	\$7,686	\$8,279	\$8,742	\$8,742
Coroner	\$20,776	\$22,557	\$23,858	\$26,014	\$27,870	\$29,702	\$31,192	\$32,834	\$34,130	\$36,214	\$38,071	\$40,778	\$43,144	\$46,470	\$49,072	\$49,072
County Attorney	\$39,332	\$42,703	\$45,166	\$49,247	\$52,761	\$56,228	\$59,050	\$62,158	\$64,613	\$68,558	\$72,073	\$77,197	\$81,677	\$87,973	\$92,898	\$92,898
District Attorney	\$189,998	\$206,283	\$218,180	\$237,892	\$254,870	\$271,618	\$285,247	\$300,262	\$312,120	\$331,177	\$348,156	\$372,911	\$394,548	\$424,963	\$448,756	\$448,756
Facilities & Fleet Management	\$120,661	\$131,003	\$138,558	\$151,077	\$161,859	\$172,495	\$181,150	\$190,686	\$198,216	\$210,319	\$221,101	\$236,823	\$250,564	\$269,879	\$284,989	\$284,989
Finance	\$46,438	\$50,419	\$53,326	\$58,144	\$62,294	\$66,388	\$69,719	\$73,389	\$76,287	\$80,945	\$85,095	\$91,145	\$96,434	\$103,868	\$109,683	\$109,683
Human Resources	\$22,306	\$24,218	\$25,615	\$27,929	\$29,922	\$31,889	\$33,489	\$35,251	\$36,644	\$38,881	\$40,874	\$43,781	\$46,321	\$49,892	\$52,685	\$52,685
Information Technology	\$189,652	\$205,908	\$217,783	\$237,459	\$254,407	\$271,124	\$284,728	\$299,716	\$311,552	\$330,575	\$347,522	\$372,233	\$393,831	\$424,190	\$447,940	\$447,940
Office of Strategic Management	\$1,826	\$1,982	\$2,097	\$2,286	\$2,449	\$2,610	\$2,741	\$2,886	\$3,000	\$3,183	\$3,346	\$3,584	\$3,792	\$4,084	\$4,313	\$4,313
Open Spaces & Intergov. Relations	\$1,184	\$1,286	\$1,360	\$1,483	\$1,589	\$1,693	\$1,778	\$1,872	\$1,946	\$2,064	\$2,170	\$2,325	\$2,460	\$2,649	\$2,797	\$2,797
Public Works in General Fund	\$62,724	\$68,100	\$72,028	\$78,535	\$84,140	\$89,669	\$94,168	\$99,125	\$103,040	\$109,331	\$114,937	\$123,109	\$130,252	\$140,293	\$148,148	\$148,148
Sheriff's Office in General Fund	\$730,479	\$793,091	\$838,829	\$914,616	\$979,892	\$1,044,281	\$1,096,680	\$1,154,408	\$1,199,998	\$1,273,268	\$1,338,545	\$1,433,722	\$1,516,909	\$1,633,845	\$1,725,321	\$1,725,321
Treasurer	-\$128,754	-\$139,790	-\$147,852	-\$161,210	-\$172,716	-\$184,065	-\$193,301	-\$203,476	-\$211,512	-\$224,426	-\$235,932	-\$252,708	-\$267,370	-\$287,981	-\$304,105	-\$304,105
Tri-County Health	\$59,113	\$64,693	\$68,517	\$74,807	\$79,650	\$85,626	\$89,563	\$93,532	\$96,879	\$101,269	\$106,741	\$113,824	\$121,793	\$132,354	\$140,544	\$140,544
<b>Total - General Fund</b>	<b>\$1,931,021</b>	<b>\$2,094,727</b>	<b>\$2,214,979</b>	<b>\$2,415,137</b>	<b>\$2,585,846</b>	<b>\$2,757,031</b>	<b>\$2,894,274</b>	<b>\$3,046,177</b>	<b>\$3,166,381</b>	<b>\$3,357,994</b>	<b>\$3,529,124</b>	<b>\$3,777,219</b>	<b>\$3,995,762</b>	<b>\$4,301,427</b>	<b>\$4,539,815</b>	<b>\$4,539,815</b>
<b>ARAPAHOE LAW ENFORCEMENT AUTI</b>																
Expenditures	\$707,383	\$768,016	\$812,308	\$885,698	\$948,911	\$1,011,264	\$1,062,006	\$1,117,909	\$1,162,057	\$1,233,011	\$1,296,224	\$1,388,391	\$1,468,948	\$1,582,187	\$1,670,771	\$1,670,771
<b>ROAD &amp; BRIDGE FUND</b>																
Public Works Admin in R&B	\$32,867	\$35,684	\$37,742	\$41,152	\$44,089	\$46,986	\$49,344	\$51,941	\$53,993	\$57,289	\$60,226	\$64,509	\$68,252	\$73,513	\$77,629	\$77,629
Public Works Direct in R&B	\$1,085,110	\$1,235,189	\$1,324,126	\$1,324,126	\$1,422,476	\$1,500,391	\$1,500,391	\$1,523,132	\$1,523,132	\$1,523,132	\$1,551,739	\$1,551,739	\$1,574,569	\$1,574,569	\$1,574,569	\$1,574,569
<b>Total - Road &amp; Bridge Fund</b>	<b>\$1,117,977</b>	<b>\$1,270,873</b>	<b>\$1,361,868</b>	<b>\$1,365,278</b>	<b>\$1,466,565</b>	<b>\$1,547,378</b>	<b>\$1,549,735</b>	<b>\$1,575,074</b>	<b>\$1,577,125</b>	<b>\$1,580,422</b>	<b>\$1,611,966</b>	<b>\$1,616,248</b>	<b>\$1,642,821</b>	<b>\$1,648,082</b>	<b>\$1,652,198</b>	<b>\$1,652,198</b>
<b>SOCIAL SERVICES FUND</b>																
<b>DEVELOPMENTAL DISABILITY FUND</b>																
<b>CAPITAL EXPENDITURES FUND</b>																
<b>OPEN SPACE FUND</b>																

**TABLE 16: EXPENDITURE METRICS AND CALCULATION METHODS**

Department:	Calculations	Explanation
Expenditure Inflation Factor	0.0%	
2012 Countywide EDUs	270,401	See Table 6
2012 Unincorporated Areas EDUs	39,332	See Table 6
2012 Unincorporated Areas Lane Miles	1,569	
<b>Administrative Services</b>		
2012 Budget - General Fund Services	\$17,751,877	
Adjustment - Remove Specific Entries	-\$2,060,000	Remove mineral severance tax, cost allocation welfare
Interim Calculation	\$15,691,877	
Adjustment - Remove General Non-Growth Related	-\$1,569,188	10% general non-growth related
Expenditure Estimate Applied in Fiscal Model	\$14,122,689	
Expenditures per EDU	<b>\$52.23</b>	
<b>Assessor</b>		
2012 Budget in General Fund - Net Expenditures	\$5,216,087	
Adjustment - Remove Specific Entries	-\$107,379	Department head salary and benefits
Interim Calculation	\$5,108,708	
Adjustment - Remove General Non-Growth Related	-\$510,871	10% general non-growth related
Expenditure Estimate Applied in Fiscal Model	\$4,597,837	
2012 Actual Values, Countywide	\$60,010,542,511	
Expenditure Per \$1,000 Actual Value	<b>\$0.08</b>	Per \$1,000,000 in actual value
<b>Board of County Commissioners &amp; BOCC Administration</b>		
2012 Budget: BOCC	\$955,299	
2012 Budget: BOCC Administration	\$578,884	
Total	\$1,534,183	
Adjustment - Remove Specific Entries	-\$636,046	Commissioner and department head salary and benefits
Interim Calculation	\$898,137	
Adjustment - Remove General Non-Growth Related	-\$89,814	10% general non-growth related
Expenditure Estimate Applied in Fiscal Model	\$808,323	
Expenditure Per EDU	<b>\$2.99</b>	
<b>Central Services In General Fund</b>		
2012 Budget	\$2,256,644	
Adjustment - Remove Specific Entries	-\$2,400	Intergovernmental revenues
Interim Calculation	\$2,254,244	
Adjustment - Remove General Non-Growth Related	-\$225,424	10% general non-growth related
Expenditure Estimate Applied in Fiscal Model	\$2,028,820	
Expenditures Per EDU	<b>\$7.50</b>	
<b>Clerk &amp; Recorder</b>		
2012 Budget	\$9,911,199	
Adjustment - Remove Specific Entries	-\$2,248,097	City Sales tax collection fees, E-470 fees, HB 04-1163 fees, transfer in from Central Services
Interim Calculation	\$7,663,102	
Adjustment - Remove General Non-Growth Related	-\$766,310	10% general non-growth related
Expenditure Estimate Applied in Fiscal Model	\$6,896,792	
Expenditures Per EDU	<b>\$25.51</b>	28.34

**TABLE 16: EXPENDITURE METRICS AND CALCULATION METHODS**

Department:	Calculations	Explanation
<b>Communications Services</b>		
2012 Budget - General Fund	\$1,271,618	Open Space and Capital Expenditure Funds are handled separately
Adjustment - Remove Specific Entries	-\$203,282	Intrafund Revenues, department head salary and benefits
Interim Calculation	\$1,068,336	
Adjustment - Remove General Non-Growth Related	-\$106,834	10% general non-growth related
Expenditure Estimate Applied in Fiscal Model	\$961,502	
Expenditure Per EDU	<b>\$3.56</b>	
<b>Community Resources</b>		
2012 Budget - General Fund	\$877,400	
Adjustment - Remove Specific Entries	-\$653,083	Interfund cost allocation revenues, department head salary and benefits
Interim Calculation	\$224,317	
Adjustment - Remove General Non-Growth Related	-\$22,432	10% general non-growth related
Expenditure Estimate Applied in Fiscal Model	\$201,885	
Expenditure Per EDU	<b>\$0.75</b>	
<b>Coroner's Office</b>		
2012 Budget	\$1,560,613	
Adjustment - Remove Specific Entries	-\$296,099	department head salary and benefits
Interim Calculation	\$1,264,514	
Adjustment - Remove General Non-Growth Related	-\$126,451	10% general non-growth related
Expenditure Estimate Applied in Fiscal Model	\$1,138,063	
Expenditure Per EDU	<b>\$4.21</b>	
<b>County Attorney In General Fund</b>		
2012 Budget - General Fund	\$2,600,687	
Adjustment - Remove Specific Entries	-\$205,239	department head salary and benefits
Interim Calculation	\$2,395,448	
Adjustment - Remove General Non-Growth Related	-\$239,545	10% general non-growth related
Expenditure Estimate Applied in Fiscal Model	\$2,155,903	
Expenditure per EDU	<b>\$7.97</b>	
<b>District Attorney</b>		
2012 Budget - General Fund	\$11,568,115	
Adjustment - Remove Specific Entries		No specific information available
Interim Calculation	\$11,568,115	
Adjustment - Remove General Non-Growth Related	-\$1,156,812	10% general non-growth related
Expenditure Estimate Applied in Fiscal Model	\$10,411,304	
Expenditure per EDU	<b>\$38.50</b>	
<b>Facilities &amp; Fleet Management in General Fund</b>		
2012 Budget - General Fund	\$9,376,720	
Adjustment - Remove Specific Entries	-\$2,031,579	These are interfund revenues and rentals and department head.
Adjustment - Building & Grounds		This does not increase with growth
Interim Calculation	\$7,345,141	
Adjustment - Remove General Non-Growth Related	-\$734,514	10% general non-growth related
Expenditure Estimate Applied in Fiscal Model	\$6,610,627	
Expenditure Per EDU	<b>\$24.45</b>	

**TABLE 16: EXPENDITURE METRICS AND CALCULATION METHODS**

Department:	Calculations	Explanation
<b>Finance</b>		
2012 Budget	\$2,990,911	
Adjustment - Remove Specific Entries	-\$163,800	department head salary and benefits
Interim Calculation	\$2,827,111	
Adjustment - Remove General Non-Growth Related	-\$282,711	10% general non-growth related
Expenditure Estimate Applied in Fiscal Model	\$2,544,400	
Expenditure Per EDU	<b>\$9.41</b>	
<b>Human Resources</b>		
2012 Budget	\$1,518,408	
Adjustment - Remove Specific Entries	-\$161,608	Department head salary and benefits
Interim Calculation	\$1,356,800	
Adjustment - Remove General Non-Growth Related	-\$135,680	10% general non-growth related
Expenditure Estimate Applied in Fiscal Model	\$1,221,120	
Expenditure Per EDU	<b>\$4.52</b>	
<b>Human Services</b>		
	\$49,923,319	
Model assumes property taxes generated by dedicate mill levy = expenditures		
<b>Information Technology in General Fund</b>		
2012 Budget - General Fund	\$12,103,467	
Adjustment - Remove Specific Entries	-\$556,074	interfund revenues + department head salary and benefits
	\$11,547,393	
Adjustment - Remove General Non-Growth Related	-\$1,154,739	10% general non-growth related
Expenditure Estimate Applied in Fiscal Model	\$10,392,654	
Expenditure Per EDU	<b>\$38.43</b>	
<b>Office of Strategic Management</b>		
2012 Budget - General Fund	\$260,481	
Adjustment - Remove Specific Entries	-\$160,862	Department head salary and benefits
	\$99,619	
Adjustment - Remove General Non-Growth Related	\$0	None; department quite small
Expenditure Estimate Applied in Fiscal Model	\$99,619	
Expenditure Per EDU	<b>\$0.37</b>	
<b>Open Spaces and Intergovernmental Relations</b>		
2012 Budget - General Fund	\$63,734	
Adjustment - Remove Specific Entries	\$0	None applicable
Interim Calculation	\$63,734	
Adjustment - Remove General Non-Growth Related	\$0	None; department quite small
Expenditure Estimate Applied in Fiscal Model	\$63,734	
Expenditure Per EDU	<b>\$0.24</b>	
<b>Public Works in General Fund</b>		
2012 Budget - General Fund	\$6,470,108	
Adjustment - Remove Specific Entries	-\$190,404	Department Head salary, Intergovernmental Revenues
Less Net Expenditures from Planning & Inspections	-\$2,460,439	Divisions 70 and 75 (In model, extensive fee revenues = expenditures)
Interim Calculation	\$3,819,265	
Adjustment - Remove General Non-Growth Related	-\$381,927	10% general non-growth related
Expenditure Estimate Applied in Fiscal Model	\$3,437,339	
Expenditure Per EDU	<b>\$12.71</b>	

**TABLE 16: EXPENDITURE METRICS AND CALCULATION METHODS**

Department:	Calculations	Explanation
<b>Public Works in Road and Bridge Fund</b>		
<i>Indirect Expense and Administration</i>		
2012 Budget	\$4,535,951	
Adjustment - Grant in Aid to Cities and Towns	-\$2,535,132	Grant in aid to cities and towns
Interim Calculation	\$2,000,819	
Adjustment - Remove General Non-Growth Related	-\$200,082	10% general non-growth related
Expenditure Estimate Applied in Fiscal Model	\$1,800,737	
Expenditure per Countywide EDU	<b>\$6.66</b>	
<i>All Other Expense Categories</i>		
2012 Budget - Indirect Expenses	\$11,043,242	
Adjustment - Remove Specific Entries	\$0.00	No adjustments
Interim Calculation	\$11,043,242	
Adjustment - Remove General Non-Growth Related	-\$1,104,324	10% general non-growth related
Expenditure Estimate Applied in Fiscal Model	\$9,938,918	
Expenditure per Unincorporated Area Lane Miles	<b>\$6,334.56</b>	
<b>Sherriff's Office in General Fund</b>		
2012 Budget	\$44,983,611	24 divisions; excludes Centennial
Adjustment - Remove Specific Entries	-\$512,985	Revenues from City of Littleton, state and federal prisoner housing, victim's assistance grant, Sheriff and related benefits, inmate social security payments.
Interim Calculation	\$44,470,626	
Adjustment - Remove Non-Growth Related	-\$4,447,063	10% general non-growth related
Expenditure Estimate Applied in Fiscal Model	\$40,023,563	
Expenditure Per EDU	<b>\$148.02</b>	
<b>Treasurer</b>		
2012 Budget - General Fund	\$1,989,507	Interest earnings exceed costs
Adjustment - Remove Specific Entries	-\$5,516,798	Intergovernmental revenues, tax collection services to other cities, department head salary and benefits
Interim Calculation	-\$3,527,291	
Adjustment - Remove General Non-Growth Related	\$0.00	None removed
Expenditure Estimate Applied in Fiscal Model	-\$7,054,582	
Expenditure Per EDU	<b>-\$26.09</b>	This is a negative figure; tax collection services to others are greater than expenditures
<b>Tri-County Health</b>		
2012 Budget	\$4,319,563	
Per Person, Based on Intergovernment Agreement	<b>\$6.29</b>	Per Person, Intergovernmental Agreement
<b>Arapahoe Law Enforcement Fund</b>		
2012 Budget	\$6,445,596	
Adjustment - Remove Specific Entries	-\$181,397	intergovernmental revenues and contract charges to towns
Interim Calculation	\$6,264,199	
Adjustment - Remove General Non-Growth Related	-\$626,420	10% general non-growth related
Expenditure Estimate in Model	\$5,637,779	
Expenditure per EDU (Unincorporated Areas)	<b>\$143.34</b>	

**TABLE 17: PROSPER RESIDENTIAL ABSORPTION DETAIL**

Phase	Plan Area	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	TOTAL	Home Value				
<b>LOW DENSITY</b>																																					
1	PA-17	10	10	10	11	11	11																										63	\$350,000	\$22,050,000		
1	PA-13		10	10	10	10	10	10	10	7																								77	\$350,000	\$26,950,000	
2	PA-16		5	5	5	5																												20	\$350,000	\$7,000,000	
2	PA-14			3	3	2																												8	\$350,000	\$2,800,000	
	17		10	10	13																													33	\$325,000	\$10,725,000	
	18			4	8	8	10	10	8																									48	\$350,000	\$16,800,000	
7	79						10	21	25	30																								111	\$350,000	\$38,850,000	
10	56										5	10	15	20	20	25	26																	121	\$350,000	\$42,350,000	
12	37											5	7	10	11	20	20																	73	\$350,000	\$25,550,000	
18	19																		2	2	2	2												8	\$350,000	\$2,800,000	
18	20																		2	2	3													7	\$350,000	\$2,450,000	
18	21																			5	10	15	15	6										51	\$300,000	\$15,300,000	
23	22																								10	15								83	\$350,000	\$29,050,000	
25	25																									15	20	18						111	\$350,000	\$38,850,000	
26	32																										20	20	23					63	\$350,000	\$22,050,000	
27	36																										15	30	50	32				127	\$350,000	\$44,450,000	
28	23																											15	10	11				21	\$350,000	\$7,350,000	
28	24																												10	7				17	\$350,000	\$5,950,000	
29	83																													35	30			65	\$350,000	\$22,750,000	
	<b>TOTAL</b>	10	25	38	43	49	29	30	41	40	30	40	20	27	30	36	46	20	4	9	15	17	15	16	15	35	60	78	98	129	62	1107	<b>\$346,951</b>	<b>\$384,075,000</b>			
<b>MEDIUM DENSITY</b>																																					
1	9	50																																220	\$250,000	\$55,000,000	
2	8		25	25	25	17																												117	\$250,000	\$29,250,000	
2	10			10	10	10	7																											47	\$250,000	\$11,750,000	
2	15				20	20	20	9																										89	\$270,000	\$24,030,000	
3	11			20	25	30	30	30	19																										184	\$250,000	\$46,000,000
5	74				15	25	40	40	40	40	40	24																						264	\$225,000	\$59,400,000	
6	60-A					20	30	40	40	30	20																								180	\$215,000	\$38,700,000
6	75					25	35	40	40	40	41																								221	\$225,000	\$49,725,000
7	78						15	20	25	17																									77	\$250,000	\$19,250,000
7	76							15	25	30	24																								94	\$225,000	\$21,150,000
8	58							5	15	20	20																								60	\$225,000	\$13,500,000
8	59							20	35	40	40	40	26																						201	\$250,000	\$50,250,000
9	60-B								25	35	45	45	50	50	28																				278	\$250,000	\$69,500,000
11	57									15	25	25	25	35	35	35	35	11																241	\$250,000	\$60,250,000	
12	51									10	20	30	30	30	30	30	30	30	30	30	30	33												273	\$275,000	\$75,075,000	
13	54										50	50	50	50	50	50	50																		250	\$275,000	\$68,750,000
14	50											50	50	50	50	50	50	54																354	\$250,000	\$88,500,000	
14	52												40	40	40	50	40																	210	\$250,000	\$52,500,000	
15	49												15	25	35	35	35	40	17															212	\$175,000	\$37,100,000	
16	38													10	15	15	20	15	15															105	\$250,000	\$26,250,000	
18	26																																		252	\$250,000	\$63,000,000
19	30																																		71	\$225,000	\$15,975,000
20	40																																		329	\$250,000	\$82,250,000
21	39																																		233	\$250,000	\$58,250,000
21	41																																		97	\$250,000	\$24,250,000
23	34																																		215	\$250,000	\$53,750,000
25	28																																		51	\$250,000	\$12,750,000
26	31																																		196	\$250,000	\$49,000,000
28	29																																		120	\$250,000	\$30,000,000
<b>Total</b>		50	75	105	130	120	147	177	219	264	252	245	144	171	155	203	180	245	205	301	249	248	162	163	115	145	177	180	148	130	136	5241	<b>\$245,212</b>	<b>\$1,285,155,000</b>			
<b>HIGH DENSITY &amp; MIXED USE RESIDENTIAL</b>																																					
4	5				30	30	40	40	40	40	30																							250	\$225,000	\$56,250,000	
7	77							10	20	20	20	9																							79	\$175,000	\$13,875,000
10	6										15	25	25	25	25	10																		125	\$175,000	\$21,875,000	
13	55													10	15	15	20	6																86	\$225,000	\$19,350,000	
15	68															5	10	15	20	20	20	25	25	25	15								200	\$175,000	\$35,000,000		
17	48																																		155	\$175,000	\$27,125,000
18	47																																		65	\$150,000	\$9,750,000
19	7																																		75	\$175,000	\$13,125,000
20	48, 22																																		0	\$150,000	\$0
22	63																																				



THIS PAGE INTENTIONALLY LEFT BLANK

## Land Use

- Existing and Adjacent Land Uses
- Description and Compliance with Local Land Use Plans
- Description of Impacts and Net Effects on Land Use Patterns



7

LAND USE

**PROSPER**

A new community with an optimistic spirit  
where one can flourish, thrive and succeed

## 7. Land Use

Land uses are proposed that will be compatible with adjacent uses and facilities. Non-residential land uses have been located along Interstate 70 and the Watkins Road interchange to maximize economic potential while also reducing potential noise impacts. Large contiguous open space areas have been located around the perimeter of Prosper providing a buffer to adjacent agricultural and rural residential areas. Lower residential densities have been located along the perimeter open space area providing an appropriate transition to adjacent land uses. Existing drainage corridors and flood plain boundaries are to be preserved in their existing state and modified as required for transportation and other infrastructure requirements. Modifications to the FEMA floodplain will be done in compliance with Federal, State and County requirements.

Prosper has been master planned to include a mix of land uses as required to reinforce a “balanced” community comprised of commercial, residential, civic and recreational uses. Land uses have been strategically located to provide compatibility with adjacent land use patterns and facilities.

### A. Existing & Adjacent Land Uses

#### Adjacent Land Uses

These uses have been located within the context of adjacent land uses that are comprised of existing Interstate 70 and the Watkins Road interchange that is located along the north boundary of Prosper.

There are approximately fourteen outparcels located along Watkins Road. These outparcels include rural residential land uses with some of the parcels remaining vacant. Thirteen of these outparcels are partially located in the 100-year floodplain. The Watkins Farm subdivision is located east of the property at the intersection of E. 6<sup>th</sup> Avenue and Imboden Road.

Located east of the property and south of I-70 is the Thunder Ranches neighborhood. An existing church and cemetery are located along the north perimeter of the property west of the I-70 and Watkins Road interchange. The Sky Ranch property/PDP is located west of the Prosper property. Also located to the west is the proposed Trails at First Creek. A land parcel located in the City of Aurora is located west of Section 2. Fritzier’s subdivision is located east of Imboden Road and to the east of Section 18. Golden Gun Club is located within an adjacent ¼ section along the south boundary of Prosper. The FAA has a facility located at the southwest corner of the Prosper property.

#### Existing Land Uses

Existing land uses included dry land wheat and corn fields. A single family detached home and accessory agriculture buildings are located at the northwest corner of the property.

Prosper includes a master plan that locates more intense land uses such commercial and employment centers along I-70 and the Watkins Road interchange. Less intense and lower residential densities have been configured adjacent to the large contiguous open space area that is located between Prosper and the adjacent properties located to the east, west and south of Prosper. An open space buffer is provided between the commercial component and Thunder Ranches. Low density residential land uses and open space buffers have been configured adjacent to the rural outparcels located within the interior of Prosper. A large contiguous open space buffer is proposed between Prosper and Sky Ranch.

A large open space buffer has been provided along the south and east boundary that is adjacent to the Golden Gun Club. Open space is also located adjacent to the FAA facility that also accommodates the 1,500 foot setback.

The master plan preserves the natural drainage corridors including Box Elder Creek and Coyote Run. Tributaries include Woodrat Gulch, Rat Gulch, Prairie Dog Draw, Cardboard Draw and Muskrat Gulch. These drainage corridors are to be utilized as open space, agriculture and recreation.

Prosper shall be in compliance with applicable County Land Development Codes and Design Guidelines unless specified otherwise in this 1041 permit application, Preliminary Development Plan, Final Development Plans or Development Agreement.

### **B. Compliance with Local Land Use Plans**

As outlined in Section 3f of this application, the Prosper project is located within the Tier One Planning Reserve designation. This designation contemplates future growth and development projects.

#### **Preliminary Development Plan Compliance**

The Prosper Preliminary Development Plan outlines permitted land uses for each respective planning area. Development standards including permitted density, building setbacks and building height are set forth within the Prosper Preliminary Development Plan.

Residential design standards and guidelines are included within the Prosper Preliminary Development Plan. These standards and guidelines address planning and design elements related to site planning, architecture, landscape architecture, screening and signage.

Development within Prosper, unless specified otherwise, shall be in compliance with the approved Preliminary Development Plan and Framework Development Plan that is to be created for each respective area or phase.

#### **Arapahoe County Transportation Plan Compliance**

A transportation plan and analysis has been prepared for Prosper. The Prosper transportation plan is in compliance with the major arterial street requirements outlined in the Arapahoe County 2035 Transportation Plan. Major arterial connections including Watkins Road and East 6<sup>th</sup> Avenue have been incorporated as prescribed in the 2035 Transportation Plan. The Prosper transportation plan is included in section 18 of this application and has been submitted under separate cover at the request of Arapahoe County Department of Public Works and Development.

#### **Arapahoe County Open Space Plan Compliance**

A comprehensive park, trails and open space plan has been prepared for Prosper. This master plan is included in Section 3 of this application. The master plan includes an extensive regional and community trails network that connect to neighborhoods, mixed use centers, passive open space areas and a central park system including community and neighborhood parks.

Existing drainage corridors including the Box Elder Creek and Coyote Run have been preserved as trail corridors, active open space and passive open space corridors as prescribed on the Arapahoe County Open Space Plan. Regional trail connections are to be provided along the Box Elder Creek corridor as proposed in the County open space plan.

### **C. Impacts and Net Effects on Land Use Patterns**

Prosper includes a master plan that locates more intense land uses such commercial and employment centers along I-70 and the Watkins Road interchange. Less intense and lower residential densities have been configured adjacent to the large contiguous open space area that is located between Prosper and the adjacent properties located to the east, west and south of Prosper. An open space buffer is provided between the commercial component and Thunder Ranches. Low density residential land uses and open space buffers have been configured adjacent to the rural outparcels located within the interior of Prosper. A large contiguous open space buffer is proposed between Prosper and Sky Ranch.

A large open space buffer has been provided along the south and east boundary that is adjacent to the Golden Gun Club. Open space is also located adjacent to the FAA facility that also accommodates the 1,500 foot setback.

The master plan preserves the natural drainage corridors including Box Elder Creek and Coyote Run. Tributaries include Woodrat Gulch, Rat Gulch, Prairie Dog Draw, Cardboard Draw and Muskrat Gulch. These drainage corridors are to be utilized as open space, agriculture and recreation.

THIS PAGE INTENTIONALLY LEFT BLANK

## Local Government Services

- Existing Capacity and Demand for Local Government Services
- Impacts and Net Effect on the Demand for Local Government Services



8

LOCAL GOVERNMENT SERVICES

**PROSPER**

A new community with an optimistic spirit  
where one can flourish, thrive and succeed

## **8. Local Government Services**

An outline of existing and proposed local government services is provided in Section 3.k of this application. Existing local government agencies in conjunction with the proposed Prosper Metropolitan Districts will be utilized to ensure that community services are provided and maintained.

A Fiscal Impact report has been prepared that describes the net effect on the demand for local government services (see Section 6).

THIS PAGE INTENTIONALLY LEFT BLANK



9

**FINANCIAL IMPACT ON ARAPAHOE COUNTY**

**PROSPER**  
A new community with an optimistic spirit  
where one can flourish, thrive and succeed

## **9. Financial Impact on Arapahoe County**

A fiscal impact report is included in this application that includes a financial analysis and summary outlining the costs and benefits to the residents of Arapahoe County. As outlined in the enclosed report, Prosper will provide a positive financial impact with regards to the local economy, government agencies and the County's General Fund. Please see Section 6 for the Fiscal Impact Report.

THIS PAGE INTENTIONALLY LEFT BLANK

## Local Economy

- Description of Local Economy See Section 6
- Impacts and Net Effect on the Local Economy and Opportunity for Economic Diversification See Section 6



10

LOCAL ECONOMY

**PROSPER**

A new community with an optimistic spirit  
where one can flourish, thrive and succeed

## 10. Local Economy

Prosper is master planned as a large scale mixed use community that will serve as a regional employment and economic generator. Land uses include regional commercial/retail, community commercial/retail, neighborhood commercial/retail and a large regional employment center that will accommodate a variety of corporate office, research and development, light industrial and distribution uses. Other employment generating land uses include education and medical.

Arapahoe County projects that growth and economic development is to initially occur within the western area of the I-70 corridor. Prosper is positioned and master planned to accommodate large and small scale commercial and retail users. Per the Fiscal Impact Report, Prosper is estimated to generate approximately 24,573 jobs. Please see Section 6 for the Fiscal Impact Report.

THIS PAGE INTENTIONALLY LEFT BLANK

## Recreational Opportunities

- Present and Potential Recreational Uses
- Impacts and Revenues of Proposed Recreational Opportunities
- Proposed Recreational Uses



11

RECREATIONAL OPPORTUNITIES

**PROSPER**

A new community with an optimistic spirit  
where one can flourish, thrive and succeed

# 11. Recreational Opportunities

## A. Present and Potential Recreational Uses

In keeping with the Prosper goals and principles, the master plan has been configured around a comprehensive open space, trails, parks and amenity system. This comprehensive system is created to provide recreational opportunities to a diverse and multi-generational population (see exhibit 11.a.1).

Prosper is master planned to include active and passive open space, parks and amenities. The active park system includes a hierarchy of facilities that are designed to include playfields, picnic areas, playgrounds, skate parks, outdoor classrooms, and botanical and community gardens. A community park is proposed for Prosper that will include sport fields, sport courts and larger group picnic and gathering facilities.

Large contiguous areas of open space have been preserved within Prosper. This large contiguous perimeter open space area reinforces the small community character while providing recreational opportunities that include cycling, hiking, equestrian, bird watching, star gazing and community farming. These large contiguous areas can also be utilized to advance conservation initiatives related to prairie preservation. While the Open Space and Agriculture district permits a variety of the recreational and agriculture land uses, a minimum of 80% of the area located within this district shall be preserved as open space.

Existing drainage corridors and large contiguous open space areas within Prosper will include a comprehensive trail system that includes approximately 30 miles of trails. This trail system will include a hierarchy of trails that can accommodate a variety of user groups and recreational activities.

The Prosper vision includes providing facilities and programming that will reinforce lifelong learning. Shared educational and park site facilities are proposed to be incorporated within Prosper. These shared facilities may include the cross utilization of gymnasiums, auditoriums, play grounds, sports courts and playfields. Active and passive parks and open space areas can be programmed and designed to include educational components such as interpretive outdoor classrooms.

## B. Impacts and Revenues of Proposed Recreational Opportunities

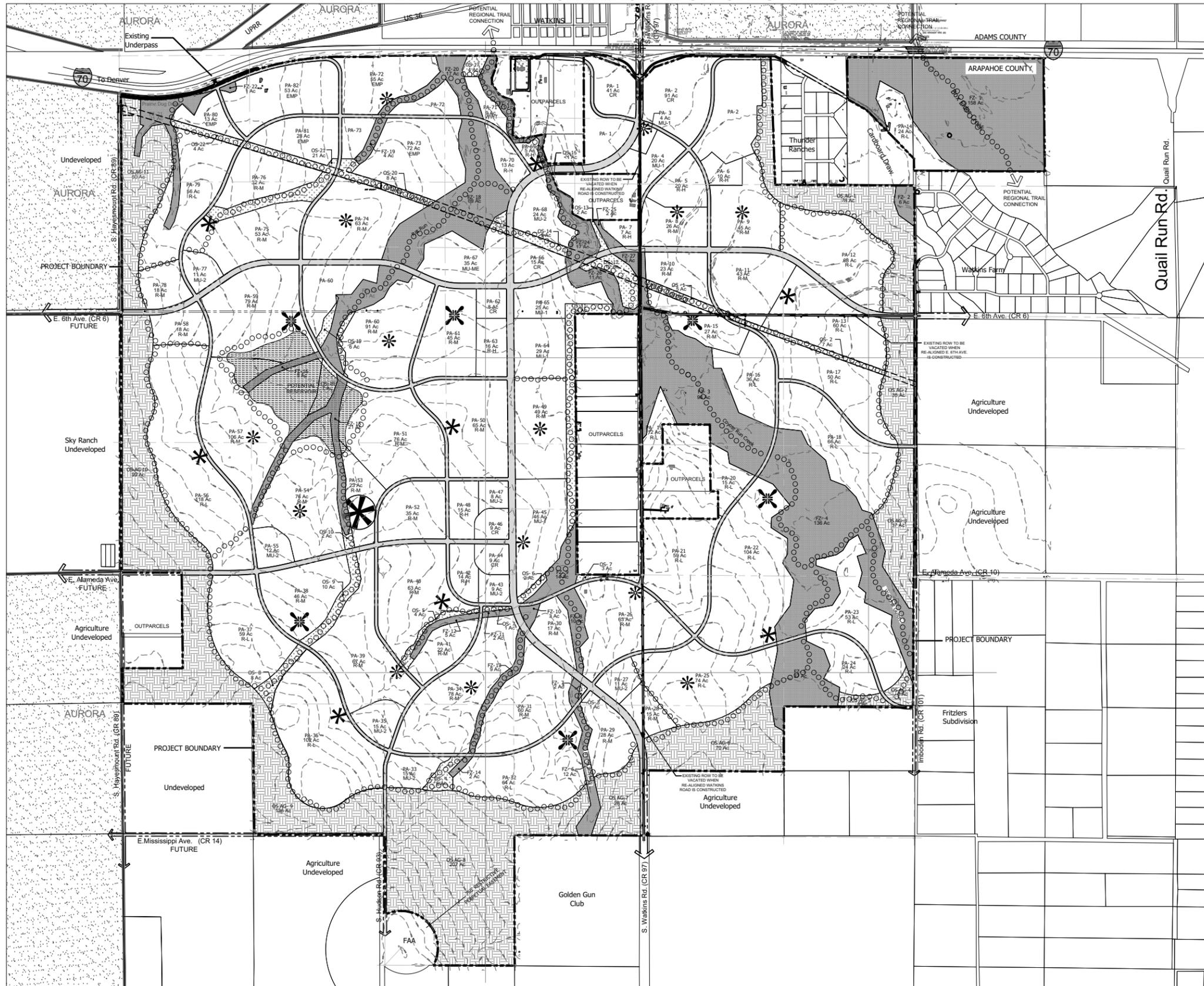
Prosper is not presently within the boundaries of any entity that provides park and recreation improvements, facilities and services, the Prosper Park and Recreation Metropolitan Financing District (the "Park and Recreation Financing District") is being organized to provide funds to support the financing of park and recreation improvements and facilities constructed by the Coordinating District. The Park and Recreation Financing District will comprise all of the property within the Development. It is anticipated that the Park and Recreation Financing District will levy an ad valorem property tax of up to 8 mills and either (i) pledge the revenues derived from such mill levy to pay bonds issued by the Coordinating District for financing capital costs of park and recreation improvements and facilities or (ii) use such revenues to secure bonds issued by the Coordinating District the proceeds of which will be remitted to the Coordinating District for such capital costs.

THIS PAGE INTENTIONALLY LEFT BLANK

# PROSPER

PARCELS OF LAND SITUATED IN SECTIONS 5, 6, 7 & 18, T.4S., R.64W.,  
AND SECTIONS 1, 2, 11, 12, 13, 14 & 24, T.4S., R.65W., OF THE 6TH P.M.  
COUNTY OF ARAPAHOE, STATE OF COLORADO

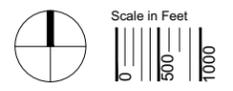
## ARAPAHOE COUNTY 1041 PERMIT EXHIBIT 11-a-1 - RECREATIONAL OPPORTUNITIES



### LEGEND

- SCHOOL / PARK
- COMMUNITY PARK
- NEIGHBORHOOD PARK
- POCKET PARK
- COMMUNITY TRAILS (BIKING, HIKING, EQUESTRIAN)
- POTENTIAL RESERVOIR (POTENTIAL AQUATIC RECREATIONAL OPPORTUNITIES)
- OPEN SPACE
- OPEN SPACE - AGRICULTURE
- F-ZONE - OPEN SPACE

NOTE:  
SCHOOLS, PARKS, TRAILS, AND RESERVOIR LOCATIONS ARE CONCEPTUAL. FINAL LOCATIONS WILL BE DETERMINED AT THE FINAL DEVELOPMENT PLAN STAGE.



Scale: 1"=1000'	
Date: JUNE 4, 2012	
Revision Date:	OCTOBER 19, 2012
	JULY 9, 2013
	FEBRUARY 7, 2014
	JUNE 20, 2014
	OCTOBER 20, 2014



## Environmental Impact Analysis

- Air Quality
- Visual Quality
- Surface Water Quality
- Groundwater Quality & Quantity
- Wetlands & Riparian Areas
- Terrestrial & Aquatic Animals & Habitat
- Terrestrial & Aquatic Plant Life
- Soils, Geological Conditions & Natural Hazards



12

ENVIRONMENTAL IMPACT ANALYSIS

**PROSPER**

A new community with an optimistic spirit  
where one can flourish, thrive and succeed

## 12. Environmental Impact Analysis

A comprehensive environmental impact analysis has been prepared for the Prosper property. This analysis addresses air quality, visual quality, surface water quality, ground quality and quantity, wetlands and riparian areas, terrestrial & aquatic animals, terrestrial & aquatic plant life, soils, geologic conditions and natural hazards, soils, geologic conditions, wildlife, air quality, noise and vegetation.

The Prosper property is comprised of predominantly sandy soils. These are soils are well drained and will require that erosion mitigation procedures be implemented. The enclosed environmental impact analysis provides additional details regarding the soil composition.

As outlined in the enclosed environmental impact analysis, the predominant wildlife habitat area is located within the Box Elder Creek corridor. This area includes two (2) hawk nests and an owl nest. A coyote den was also identified within the Box Elder Creek corridor. A hawk nest is located in Section 6 south of I-70.

The Box Elder Creek corridor and associated 100-year floodplain are proposed to remain as open space minimizing potential impacts. Any potential disturbance to these areas will comply with the mitigation procedures outlined in the analysis.

Three (3) small potential wetland areas are identified within the Coyote Run basin. The intent is to preserve the Coyote Run corridor and potential wetland areas to the extent practicable. Mitigation procedures will be implemented should any disturbance be required.

A majority of the Prosper property has been utilized for dry land wheat farming. There is very limited vegetation with regard to trees. Existing trees are predominately located along Box Elder Creek with isolated massings located within the Coyote Run corridor.

Other considerations related to ground water, air and noise are also evaluated within the report. The enclosed analysis concludes that Prosper will not adversely impact air quality and will comply with Federal, State and County regulations.

An analysis of the existing aquifers and adjacent wells is included in this section. The analysis locates the adjacent wells and outlines the impacts and implications to the aquifers and existing groundwater wells.

Prosper is located outside of the Front Range Airport influence area. A portion of the property located west of Watkins Road is located within the Denver International Airport influence area. An aviation easement will be executed for the area located within the airport influence area.

Adverse noise impacts have also been reduced by locating non-residential land uses adjacent to I-70. Commercial, retail, office and light industrial uses have been located along the I-70 frontage.

Enclosed within the section is the environmental impact analysis that describes and summarizes in greater detail the environmental considerations outlined above.

THIS PAGE INTENTIONALLY LEFT BLANK

**Prosper Project  
Arapahoe County 1041 Application  
Section 12. Environmental Impact Analysis  
a. Air Quality  
b. Visual Quality**

*prepared for:*

**Vogel & Associates  
475 W. 12<sup>th</sup> Avenue, Suite E  
Denver, CO 80204**

*prepared by:*

**McVehil-Monnett Associates, Inc.  
44 Inverness Drive East, Building C  
Englewood, CO 80112**

**April 2012**

**July 2013 Revised**

# Table of Contents

<u>Section / Title</u>	<u>Page</u>
1.0 Background.....	1
2.0 Existing Environment.....	1
2.1 Introduction.....	1
2.1 Climate .....	1
2.2 Regional Climate.....	1
2.4 Ambient Air Quality .....	5
3.0 Impacts.....	5
3.1 Fugitive Dust .....	5
3.2 Stationary Sources of Air Pollution .....	7
3.3 Traffic.....	8
3.4 Visual Quality .....	8
3.5 Microclimates .....	11
3.6 Approval Criteria.....	11
4.0 References.....	12

## List of Figures

<u>Number / Title</u>	<u>Page</u>
Figure 1. Vicinity Map .....	2
Figure 2. Project Location Map .....	3
Figure 3. Development Plan .....	4
Exhibit 12.5 Visual Analysis .....	10

## List of Tables

<u>Number / Title</u>	<u>Page</u>
Table 1. Criteria Air Pollutant Concentrations and Applicable Standards ( $\mu\text{g}/\text{m}^3$ ).....	6
Table 2. Fugitive Dust Control Measures .....	7

## **1.0 Background**

The Prosper Project is located on a 5,130 acre parcel of land in northwestern Arapahoe County, Colorado, south of the incorporated town of Watkins, south of Interstate 70, and approximately centered on Watkins Road. Figure 1 illustrates the vicinity of the project site as shown on Figure 2. The development plan for this parcel includes a mixture of residential, commercial, retail, mixed uses, and some industrial activity distributed over the parcel, with the majority of acreage dedicated to residential uses (Figure 3).

## **2.0 Existing Environment**

### **2.1 Introduction**

Arapahoe County is one of the largest counties in Colorado with a population of more than 500,000 citizens, and is the third most populated county in the state. According to the Colorado Department of Health and Environment, Arapahoe County is included in the Northern Front Range Counties, which are those along the urbanized Interstate 25 highway corridor. The portion of the county where this project is proposed is currently rural with scattered residential, retail, office, and industrial areas. The specific undeveloped site is characterized by dryland croplands, and includes sandy draws. There are no Class I airsheds within 50 miles of the project site. The closest Class I airshed is Rocky Mountain National Park, located approximately 60 miles northwest.

Regional air quality is a function of the volume and spatial distribution of air pollutant emissions over a relatively large area. Micro and mesoscale meteorology, as well as local and regional topography, significantly affect the movement of pollutants within a region. Generally, when the large-scale or synoptic wind flow pattern is weak, local meteorology effects prevail.

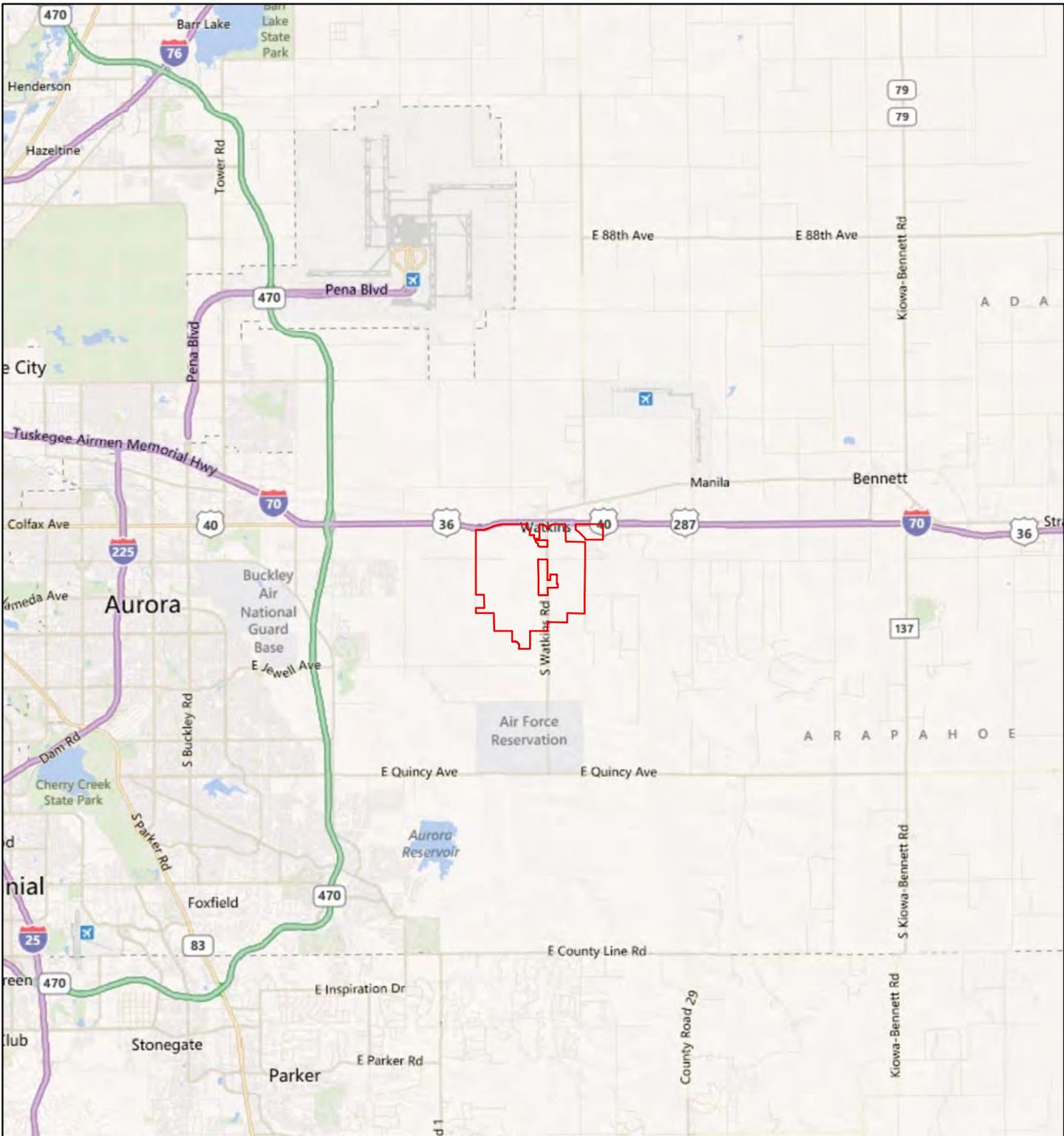
### **2.1 Climate**

Latitude, terrain, altitude, and nearby water bodies and their associated currents all affect the climate of any specific location. Long term weather variables, precipitation and temperature, determine climate. The transport and dispersion of air pollutants in the atmosphere are affected by climate in the long term and weather in the short term. In certain circumstances, components of climate and weather can actually cause air pollutants to be emitted, such as windblown particulates from soil erosion. The most notable variables affecting the direction and concentration of air pollutants over a specific geographic area are wind speed and direction. Atmospheric pollution can also vary based on other meteorological conditions such as temperature and precipitation. These variables can affect how pollutants react chemically in the atmosphere or how their effects might be mitigated.

### **2.2 Regional Climate**

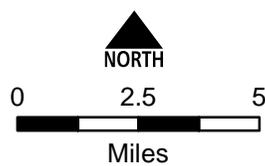
The project site is located within the northern front range of Colorado. This area is characterized primarily by rolling prairie and agricultural land with lower population density than areas in the county closer to Denver. Elevations of the project site range from 5,540 feet to about 5,770 feet. Summer days are typically hot, often relieved by afternoon thundershowers. Since the humidity is quite low, even the hot days feel relatively comfortable, due to rapid evapotranspiration. Winter days can be comfortable from the higher elevation allowing the sun less atmosphere to penetrate.

Prevailing air currents are primarily from the west. Eastward-moving storms tend to lose much of their moisture over the mountaintops, and consequently, the eastern portion of the state receives relatively small amounts from these storms. Storms which move from the north, most often during fall and winter, carry little moisture. (Doesken, et al. 2003)



**Legend**

 Boundary April 2012

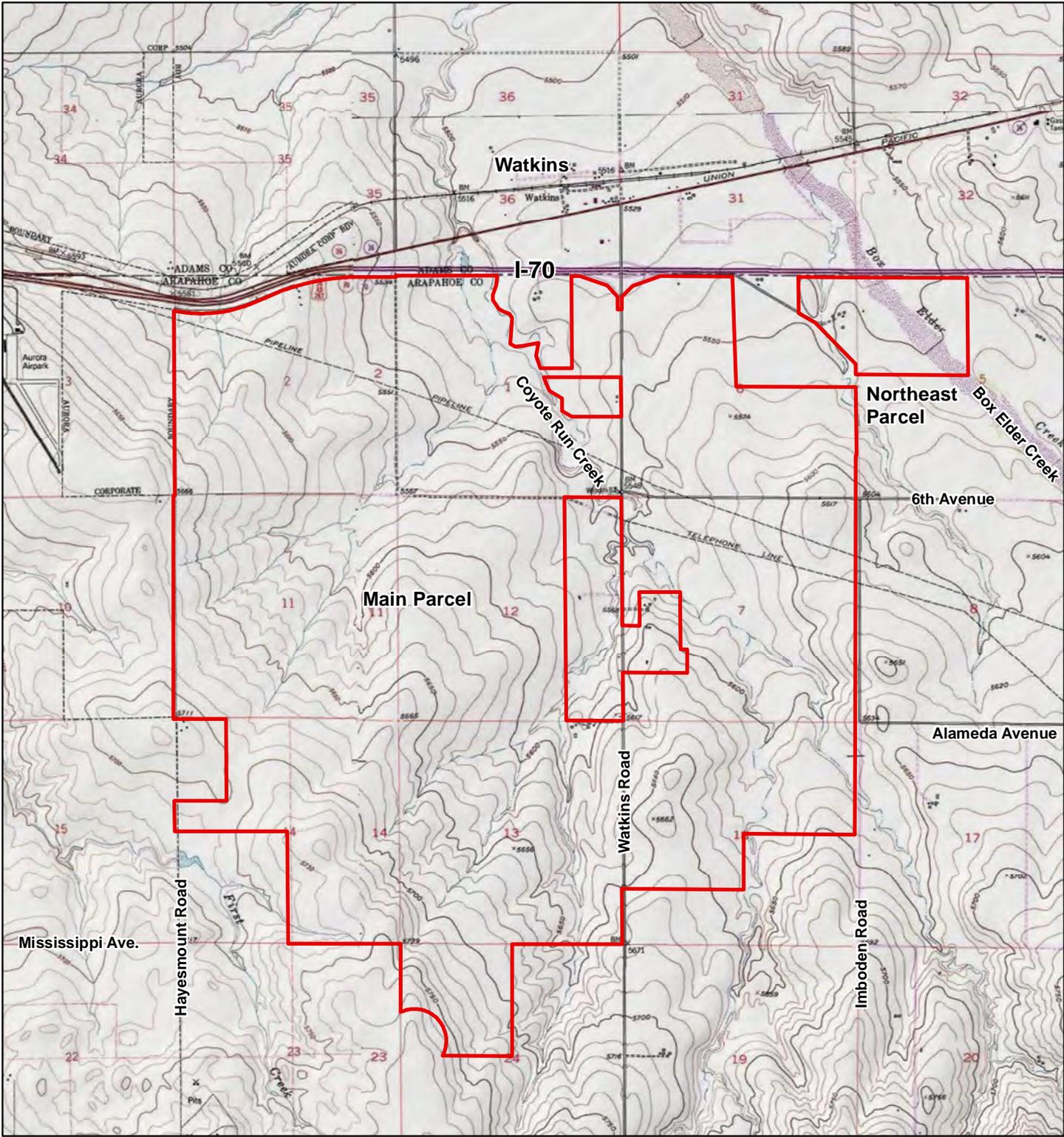


**Figure 1. Vicinity Map  
Prosper Project**

Date: April 2012

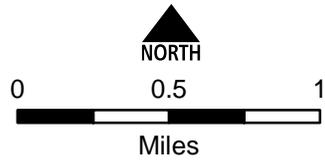


**Western Ecological Resource, Inc.**  
711 Walnut Street, Boulder, CO 80302  
(303) 449-9009



**Legend**

 Boundary April 2012



**Figure 2. Project Location Map  
Prosper Project**

Date: April 2012

 **Western Ecological Resource, Inc.**  
711 Walnut Street, Boulder, CO 80302  
(303) 449-9009

# PROSPER

PARCELS OF LAND SITUATED IN SECTIONS 5, 6, 7 & 18, T.4S., R.64W., AND SECTIONS 1, 2, 11, 12, 13, 14 & 24, T.4S., R.65W., OF THE 6TH P.M. COUNTY OF ARAPAHOE, STATE OF COLORADO ARAPAHOE COUNTY 1041 PERMIT

## LEGEND

### RIGHTS-OF-WAY

- Major Arterial
- Minor Arterial
- Boulevard
- Connector Road

### SCHOOLS & PARKS

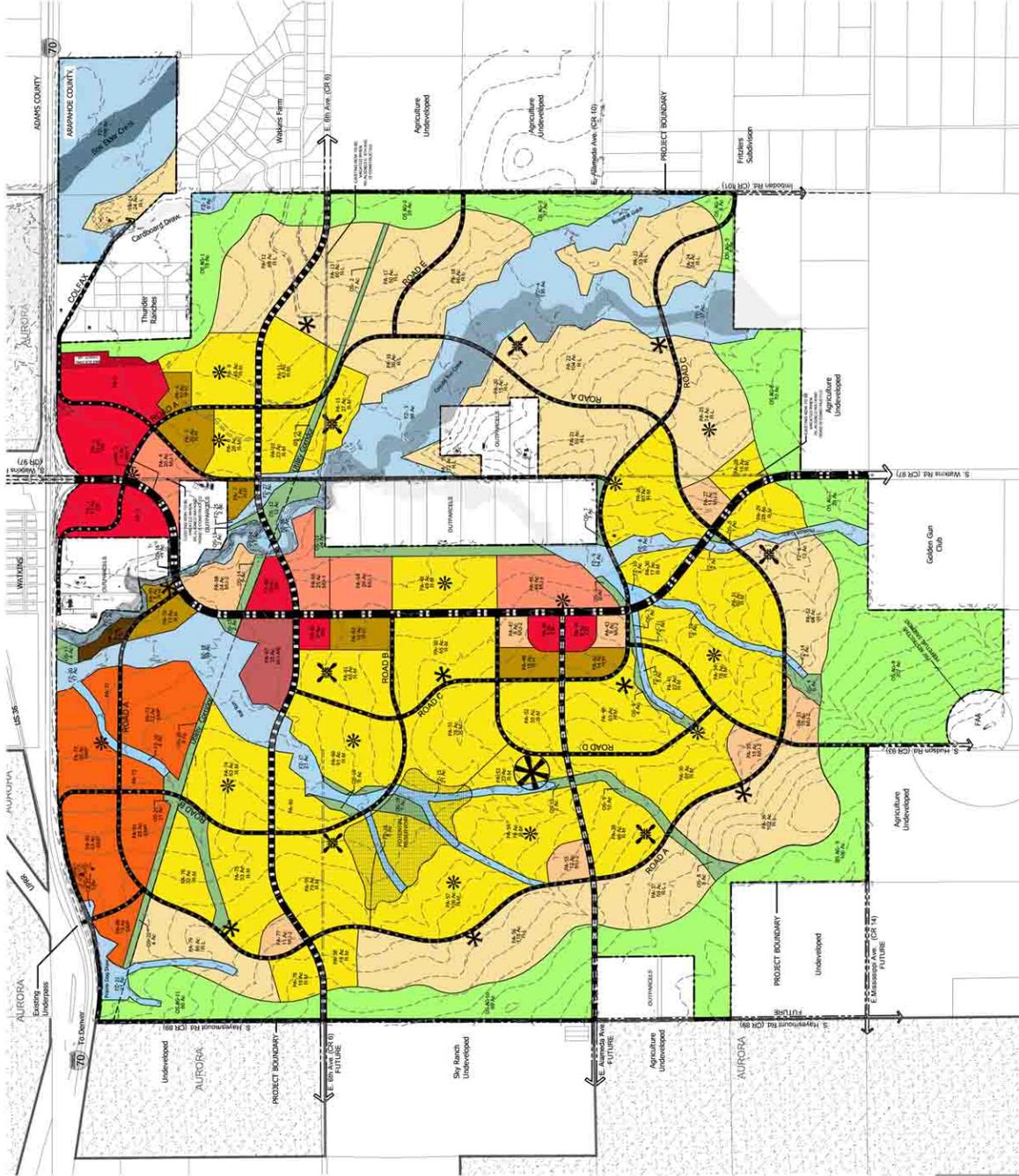
- School / Park
- Community Park
- Neighborhood Park
- Pocket Park

### WATERWAYS

- FEMA 100 Year Floodplain
- FEMA Floodway
- Potential Reservoir

### Land Use

Abbr.	Land Use
CR	Commercial/Retail
MU-1	Mixed Use Commercial
MU-2	Mixed Use Residential
MU-HE	Mixed Use (Medical / Educational / Campus)
EMP	Employment (Light Industrial/Flex/Office)
Residential	Residential
R-L	Low Density Residential
R-M	Medium Density Residential
R-H	High Density Residential
WWT	Waste Water Treatment
FZ	F-Zone (Floodplain)
OS	Open Space
OS-AG	Open Space - Agricultural



Scale: 1" = 100'

Date: JUNE 4, 2012  
 Revision: OCTOBER 19, 2012  
 Date: FEBRUARY 7, 2014

Date: JULY 9, 2013  
 Date: JUNE 20, 2014

**VOGEL & ASSOCIATES**  
 Denver, Colorado 80202-5566  
 (303) 993-4388

FIGURE 3: LAND DEVELOPMENT PLAN

## **2.3 Local Climate**

The meteorological station located at Byers (Byers 5 ENE), about 20 miles east of the project site records observations for temperature, pressure, wind speed, direction and precipitation. The climatological period of 1971 to 2000 indicates that the 30-year monthly mean temperatures range from 26.1°F (January) to 73.1°F (July). Extreme temperatures recorded are -33°F, and 106°F. Annually, precipitation is approximately 15.3 inches and snowfall averages 44 inches (WRCC 2012).

## **2.4 Ambient Air Quality**

Air pollutants measured in the ambient air comprise what is typically referred to as "ambient air quality". Each of the pollutants identified by the U.S. Environmental Protection Agency (EPA) as "criteria" are monitored in the atmosphere; they include: carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), lead (Pb), ozone (O<sub>3</sub>), sulfur dioxide (SO<sub>2</sub>), and particulate matter (PM) regulated in two categories: PM<sub>10</sub>, or particulates with an aerodynamic diameter of 10 micrometers or less; and PM<sub>2.5</sub>, particulates with an aerodynamic diameter of 2.5 micrometers or less. EPA has promulgated National Ambient Air Quality Standards (NAAQS) for all criteria pollutants, designed to be protective of human health with an acknowledgement of sensitive populations. The Colorado Air Quality Control Commission (AQCC) has also published the Colorado Ambient Air Quality Standards (CAAQS) that apply to ambient air quality. These two sets of ambient air quality standards are presented in Table 1.

The northern Front Range contains 26 gaseous pollutant monitors, 24 particulate monitors and 16 meteorological monitors. All of these are maintained by the state of Colorado Air Pollution Control Division. This Front Range area is the most heavily monitored portion of the state.

Statewide, CO, SO<sub>2</sub> and NO<sub>2</sub> monitors have all shown steady decreases in concentration values since the 1990s, while ozone, PM<sub>10</sub> and PM<sub>2.5</sub> concentrations have remained relatively steady. Along the northern Front Range, the trend is similar. The nearest monitor, Aurora East, is located approximately five miles south of the project site. This monitor measures ozone and records meteorological information. Data at this site have only been collected for fewer than three years; therefore a comparison to the NAAQS or CAAQS cannot be made. However, with the exception of the Rocky Flats and Chatfield monitoring sites, the vicinity in and around the project site does not show any NAAQS or CAAQS violations (CDPHE 2011).

## **3.0 Impacts**

Air quality impacts are indicated by changes in the concentrations of atmospheric pollutants as a result of specified actions and their corresponding relationship to state and federal standards. This section discusses impacts to air quality from site preparation and construction at the project site resulting from the proposed activities within the project site, and impacts resulting from emissions associated with subsequent site operations. The purpose of the air quality analysis is to provide a qualitative assessment of the analysis area. Modeling was not performed to precisely calculate future emissions.

### **3.1 Fugitive Dust**

Air quality impacts would result from airborne particulates (fugitive dust) arising from earthwork during site preparation and construction. Under certain wind conditions, there could be incremental localized increases in particulate emissions at nearby downwind receptors. Emissions resulting from construction activities proposed for the project site would be intermittent, and would not be expected to exceed ambient air quality standards or substantially impact regional air quality attainment status or progress.

**Table 1. Criteria Air Pollutant Concentrations and Applicable Standards ( $\mu\text{g}/\text{m}^3$ )**

Criteria Pollutant	Averaging Time	Primary NAAQS <sup>1</sup> ( $\mu\text{g}/\text{m}^3$ )	Secondary NAAQS ( $\mu\text{g}/\text{m}^3$ )	CAAQS	PSD Increments		PSD Significant Monitoring Concentration <sup>2</sup>
					Class I ( $\mu\text{g}/\text{m}^3$ )	Class II ( $\mu\text{g}/\text{m}^3$ )	
Carbon Monoxide	1-hour	40,000 <sup>3</sup>	NA	NA	NA	NA	NA
	8-hour	10,000 <sup>3</sup>	NA	NA	NA	NA	575 $\mu\text{g}/\text{m}^3$
Lead	Rolling 3-Month	0.15 <sup>4</sup>	0.15	NA	NA	NA	NA
Nitrogen Dioxide	1-hour	188 <sup>5</sup>	NA	NA	NA	NA	NA
	Annual	100	100	NA	2.5	25	14 $\mu\text{g}/\text{m}^3$
Ozone	8-hour	147 <sup>6</sup>	147	NA	NA	NA	100 TPY VOC or NO <sub>x</sub>
Sulfur Dioxide	1-hour	196.5 <sup>7</sup>	NA	NA	NA	NA	NA
	3-hour	NA	1,300 <sup>3</sup>	700	25	512	NA
	24-hour	NA	NA	NA	5	91	13 $\mu\text{g}/\text{m}^3$
PM <sub>10</sub>	24-hour	150 <sup>8</sup>	150	NA	8	30	10 $\mu\text{g}/\text{m}^3$
PM <sub>2.5</sub>	24-hour	35 <sup>9</sup>	35	NA	2	9	4 $\mu\text{g}/\text{m}^3$
	Annual	15 <sup>10</sup>	15	NA	1	4	NA
Fluorides	24-hour	NA	NA	NA	NA	NA	0.25 $\mu\text{g}/\text{m}^3$
Total Reduced Sulfur	1-hour	NA	NA	NA	NA	NA	10 $\mu\text{g}/\text{m}^3$
Hydrogen Sulfide	1-hour	NA	NA	NA	NA	NA	0.2 $\mu\text{g}/\text{m}^3$
Reduced Sulfur Compounds	1-hour	NA	NA	NA	NA	NA	10 $\mu\text{g}/\text{m}^3$

- <sup>1</sup> Primary standards are designed to protect public health; secondary standards are designed to protect public welfare.
- <sup>2</sup> Significant Monitoring Concentrations (de minimis levels) apply only to new sources and modifications subject to PSD review (see Regulation No. 3, Part D VI)
- <sup>3</sup> Not to be exceeded more than once per year
- <sup>4</sup> Final rule signed October 15, 2008. The 1978 lead standard (1.5  $\mu\text{g}/\text{m}^3$  quarterly ave) remains in effect until one year after an area is designated for the 2008 standard, except in areas designated nonattainment for the 1978 standard, that standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
- <sup>5</sup> To attain this standard, the 3-year average of the 98<sup>th</sup> percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 100 ppb (effective January 22, 2010).
- <sup>6</sup> To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone measured at each monitor within an area over each year must not exceed 0.075 ppm (effective May 27, 2008).
- <sup>7</sup> To attain this standard, the 3-year average of the 99<sup>th</sup> percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 75 ppb (Final rule signed June 2, 2010).
- <sup>8</sup> Not to be exceeded more than once per year on average over 3 years.
- <sup>9</sup> To attain this standard, the 3-year average of the 98<sup>th</sup> percentile of 24-hour concentrations from single or community-oriented monitors must not exceed 35  $\mu\text{g}/\text{m}^3$  (effective December 17, 2006).
- <sup>#</sup> To attain this standard, the 3-year average of the weighted annual mean PM<sub>2.5</sub> concentrations from single or community-oriented monitors must not exceed 15  $\mu\text{g}/\text{m}^3$ .

The project site will be impacted by the preparation of soils for a variety of activities as part of this project, including: land development for residential, commercial, retail, community use areas including a park, and industrial operations including a reservoir and a waste water treatment plant. These activities will involve grading, stockpiling, construction of foundations, paving of roadways, and installation of utilities. The initial air quality impacts of these activities will be relatively short term and minor and would come mostly from fugitive dust emissions from a variety of wheeled and tracked vehicles. However, this project is subject to review pursuant to the Reporting and Permitting Requirements for Large Land Development Activities of the Colorado Department of Public Health and Environment, Air Pollution Control Division, and as such would be subject to the conditions of a Fugitive Dust Control Plan. Fugitive dust controls will be required to be implemented and may include any or all of the following control measures listed in Table 2.

**Table 2. Fugitive Dust Control Measures**

<b>Control Options for Unpaved Roadways</b>	
Watering	Use of chemical stabilizer
Paving	Controlling vehicle speed
Graveling	
<b>Control Options for Mud and Dirt Carry-Out Onto Paved Surfaces</b>	
Gravel entry ways	Washing vehicle wheels
Covering the load	Not overfilling trucks
<b>Control Options for Disturbed Areas</b>	
Watering	Application of a chemical stabilizer
Revegetation	Controlling vehicle speed
Compaction	Furrowing the soil
Wind Breaks	Minimizing the areas of disturbance
Synthetic or Natural Cover for Slopes	

Source: Colorado Air Pollution Control Division

With the implementation of these controls and oversight by the Colorado Air Pollution Control Division, fugitive emissions generated under the average and worst conditions would be minimized to the extent possible and reasonably addressed in the context of any typical land development project. Air quality impacts would be minimal and short-lived. Changes in seasonal air quality in and near the analysis area would be expected to be minimal to non-existent due to this project.

### 3.2 Stationary Sources of Air Pollution

Colorado air pollution regulations (AQCC Regulation 3) also address the construction of all stationary sources of air pollution, which emit pollutants above levels that the State has determined to be significant. The only stationary source of air pollution proposed for the development is a waste water treatment plant. While undefined at this stage of the project, these plants typically comprise a series of tanks and an evaporation system that includes a heat source, e.g., boiler, heater or incinerator. Emissions from such systems are subject to Colorado air pollution permitting regulations as well as EPA regulations called New Source Performance Standards under 40 CFR Part 60 and National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 61 and/or Part 63.

Colorado Air Quality Commission Regulation 2, Odor Emission, specifically addresses odors from a variety of sources, including "All Anaerobic Process Wastewater Vessels and Impoundments, which would address the proposed waste water treatment plant. As such, the plant will be required to "employ an approved cover or be operated with technologies or practices that are as effective as covers at minimizing odor from the operation so as to capture,

recover, incinerate, or otherwise manage odorous gases to minimize, to the greatest extent practicable, the emission of such gases into the atmosphere”.

These regulations, taken as a whole, address all of the concerns related to the construction and operation of waste water treatment plants, including control of criteria pollutants, hazardous air pollutants and odors. These regulations, coupled with the provisions of Arapahoe County regulations, will adequately address the average and worst conditions of the plant operations.

### **3.3 Traffic**

Access to the project site would be provided by Interstate 70, Watkins Road and 6<sup>th</sup> Avenue. These roadways are currently paved. Roadways interior to the project site will also be paved.

During construction within the project site, temporary and localized increases in atmospheric concentrations of NOX, CO, SO<sub>2</sub>, VOCs, and PM would result from exhaust emissions from worker vehicles, heavy construction vehicles, and other machinery, equipment, and tools. Vehicle emissions are addressed by Colorado regulations for licensing and are not subject to other regulatory requirements.

Traffic levels in the area would increase in the short-term due to construction (workers, equipment, and delivery of materials), and in the long-term due to daily traffic associated with the circulation of residents and typical urban support services that utilize motorized vehicles.

Given the relatively high levels traffic volumes already existing on the roadways surrounding the project site, the additional traffic from the development would result in minimal impacts to traffic and roadway safety.

### **3.4 Visual Quality**

Prosper is currently located along the south side of the I-70 corridor. The existing Watkins community is located to the north of Prosper and is comprised of a combination of commercial and residential structures. An excavation contractor office with a service yard is proposed on the north side of I-70 across from Prosper. Three existing low density residential neighborhoods are located on the east side of Prosper. Undeveloped agricultural fields are currently located south and west of Prosper.

While the existing Prosper property is undeveloped and utilized for agriculture, the Arapahoe County Comprehensive Plan designates this area as “Planning Reserve” which contemplates urban and suburban development. The Sky Ranch project located directly west of Prosper is proposed to include a variety of commercial, industrial and residential uses with urban and suburban level densities.

Prosper is master planned to address specific visual considerations as the I-70 corridor transitions to include more urban and suburban growth patterns. Strategically locating specific land uses including large contiguous open space areas has been utilized to address some of these considerations.

Larger and more intense non-residential land uses have been located along I-70 and the Watkins Road interchange. These land uses will include commercial and employment land uses. Development standards have been included in the Preliminary Development Plan to ensure that an attractive edge is maintained along I-70 and the Watkins Road interchange. Development standards that address site planning, architecture, landscape, lighting etc. have been created for the commercial and the employment land use districts that are located along I-70 and the Watkins Road interchange.

Building types and massing will be similar to what is contemplated at the proposed Sky Ranch project. Proposed suburban commercial development consisting of mid-rise commercial buildings, warehouse, office/flex and retail buildings are structures that will be constructed within these planning areas.

An open space buffer has been planned between the Thunder Ranches neighborhood and planning area 2. Furthermore, development standards have been developed that requires building heights to be terraced and restricted along the west side of Planning Area 2. Attached to this report are cross-sections that illustrate the visual relationship between the respective land uses and adjacent Thunder Ranches and Watkins Farm neighborhood located to the east.

Other commercial and mixed use land use classifications are proposed along primary streets such as Watkins Road, East 6<sup>th</sup> Avenue and Alameda. These areas are contemplated to include community and neighborhood commercial centers that will be comprised of predominantly low and mid rise structures.

As illustrated on the attached land use plan, Prosper is master planned to include large contiguous areas of open space along the perimeter of the community. This open space buffer and the low density planning areas located along the perimeter of the community will serve as a transition between Prosper and the adjacent land uses. Structures that are comprised of similar massing and heights are contemplated for these low density residential areas.

The existing primary drainage corridors and tributaries are planned to serve as natural open space corridors. These areas will continue to visually communicate the open and natural character associated with these existing riparian corridors.

**NOTES:**

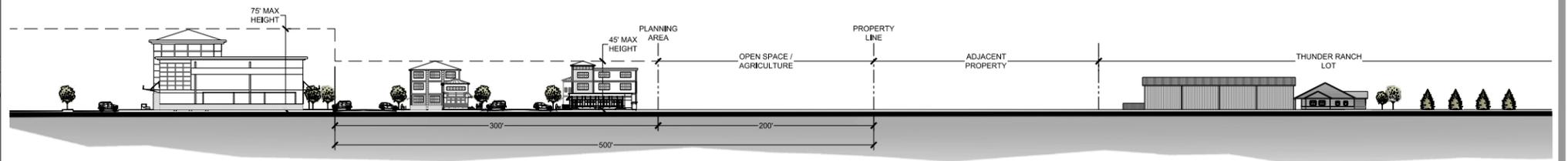
1. TO REDUCE THE VISUAL IMPACT TO THUNDER RANCHES, THE MAXIMUM BUILDING HEIGHT FOR PLANNING AREAS PA-2 & OS AG-1 HAS BEEN TERRACED. WITHIN 500' WEST OF THUNDER RANCHES, MEASURED FROM THE EASTERMOST PROSPER PROPERTY LINE, A MAXIMUM BUILDING HEIGHT OF 45' IS ALLOWED. ALL AREAS BEYOND 500' REFER TO THE DEVELOPMENT STANDARDS IN THIS DOCUMENT FOR MAXIMUM BUILDING HEIGHTS..

# PROSPER

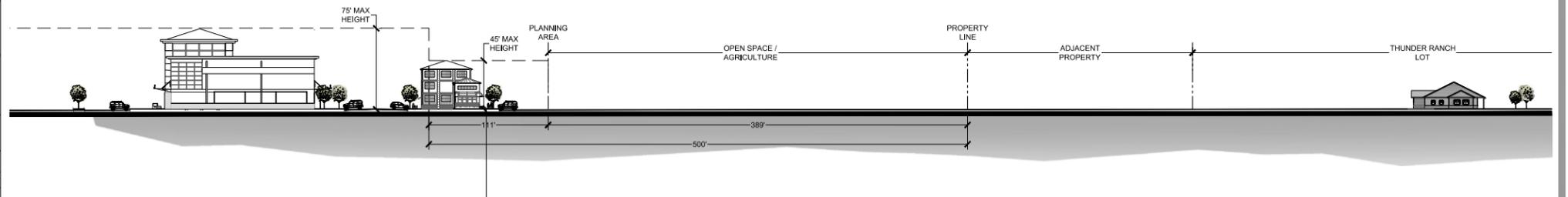
PARCELS OF LAND SITUATED IN SECTIONS 5, 6, 7 & 18, T.4S., R.64W.,  
AND SECTIONS 1, 2, 11, 12, 13, 14 & 24, T.4S., R.65W., OF THE 6TH P.M.  
COUNTY OF ARAPAHOE, STATE OF COLORADO  
ARAPAHOE COUNTY 1041 PERMIT  
**EXHIBIT 12-b- VISUAL ANALYSIS**



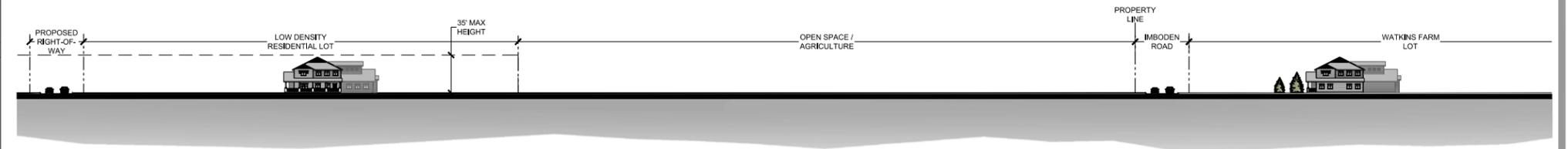
**SECTION SITE PLAN**  
SCALE: 1"=600'



**SECTION A-A**  
SCALE: 1"=60'



**SECTION B-B**  
SCALE: 1"=60'



**SECTION C-C**  
SCALE: 1"=60'



Scale:	
Date: JUNE 4, 2012	
Revision Date:	OCTOBER 19, 2012
JULY 9, 2013	FEBRUARY 7, 2014
JUNE 20, 2014	OCTOBER 20, 2014

### **3.5 Microclimates**

There has been no data collected concerning the existing microclimates surrounding the project site. Regional climate data have been collected, however they represent a larger geographical area and cannot be used to benchmark specific conditions on the project site itself. It is generally understood that building construction, road pavement and introduction of activities such as water bodies (reservoirs) and waste water treatment plants change meteorological variables such as temperature, humidity, and to some extent surface wind patterns. It is also generally accepted that the use of landscaping, including trees, grasses and drainage improvements, can also change those same meteorological variables. In the final analysis, it is likely there will be some change in microclimates of the project site, however it is unlikely that those changes would be exclusively negative or undesirable compared to the existing microclimates.

### **3.6 Approval Criteria**

Prior to soil disturbance and construction of any structures, the project site is subject to air pollution source permitting pursuant to the Colorado Air Quality Control Regulations. Prior approvals from the Colorado Air Pollution Control Division are required before any construction activities can commence, including soil movement and construction of stationary air pollution sources. The applicant must acquire all necessary air permits and approvals prior to commencing the physical activities of this project.

Taken in total, the character of the activities proposed for the project site is similar in nature to development in the surrounding the area. No unique sources of air pollution are proposed for the project site, nor are there any high density population areas proposed that would generate excessive traffic.

The resultant air pollution from the activities on the project site is not expected to exceed any ambient air quality standards set by EPA or the State of Colorado, either in the short term during construction or over a longer period of time. The proposed project will not significantly degrade the air quality, climate or visual quality of that area.

## 4.0 References

- Doesken et al. 2003 Doesken, Nolan J., Roger A. Pielke, Sr., and Odilia A. P. Bliss, "Climate of Colorado", *Climatology of the United States* No. 60, Colorado Climate Center, Atmospheric Sciences Department, Colorado State University, Fort Collins, CO January 2003. <http://climate.colostate.edu/climateofcolorado.php>
- WRCC 2012 Western Regional Climate Center (WRCC), "Climate Statistics for Byers 5 ENE Monitoring Station", WRCC. <http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?co1179>
- CDPHE 2011 Colorado Department of Public Health and Environment (CDPHE), Colorado Air Pollution Control Division (CAPCD), *Colorado 2010 Air Quality Data Report*. <http://www.colorado.gov/airquality/documents/2010AnnualDataReport.pdf>



---

**Prosper Project  
Arapahoe County 1041 Application  
Section 12. Environmental Impact Analysis  
c. Surface Water Quality**

---

*prepared for:*

**Vogel & Associates**

475 W. 12<sup>th</sup> Ave, Suite E, Denver, CO 80204

*prepared by:*

**Western Ecological Resource, Inc.**

711 Walnut Street, Boulder, CO 80302

March 2013

# Table of Contents

<u>Section / Title</u>	<u>Page</u>
1.0 Introduction .....	1
2.0 Environmental Setting .....	1
3.0 Methods.....	1
4.0 Surface Water Features.....	4
4.1 Box Elder Creek.....	4
4.2 Coyote Run Creek .....	4
5.0 Proposed Development.....	6
6.0 Impacts to Surface Water Quality .....	6
6.1 Potential Impacts .....	6
6.2 Impervious Surfaces & Stormwater Runoff.....	8
7.0 Photos.....	10
8.0 References .....	14

## List of Figures

<u>Number / Title</u>	<u>Page</u>
Figure 1. Vicinity Map.....	2
Figure 2. Project Location Map.....	3
Figure 3. Soil Map.....	5
Figure 4. Proposed Development Plan.....	7

## List of Photos

<u>Number / Title</u>	<u>Page</u>
Photo 1. Box Elder Creek. (3/26/12).....	11
Photo 2. The broad, sandy streambed of Box Elder Creek. (3/26/12). ....	11
Photo 3. Potential Wetland 2 (PW-2) within Coyote Run Creek. (3/26/12).....	12
Photo 4. Sandy riparian habitat along the lower portion of Coyote Run Creek. (3/26/12).....	12
Photo 5. Area of Coyote Run Creek vegetated by smooth brome. (3/26/12).....	13
Photo 6. Terrace escarpment (Tc) along Coyote Run Creek. (3/26/12). ....	13

## 1.0 Introduction

Prosper is a proposed 5,130-acre mixed-use development to be located near Watkins in unincorporated Arapahoe County, Colorado (Figure 1). It is located just south of I-70 in Sections 1, 2, 11, 12, 13, 14, and 24 of Range 65 West and Township 4 South; and Sections 5, 6, 7, and 18 of Range 64 west and Township 4 South in Arapahoe County (Figure 2). In accordance with the standards of Arapahoe County's 1041 development review process, an inventory of surface water features was prepared. Specifically, this report addresses Environmental Impact Analysis Section 12 c. Surface Water Quality of the Arapahoe County 1041 Application. Please note, all Figures are included with the text, and Photos are at the end of this section.

## 2.0 Environmental Setting

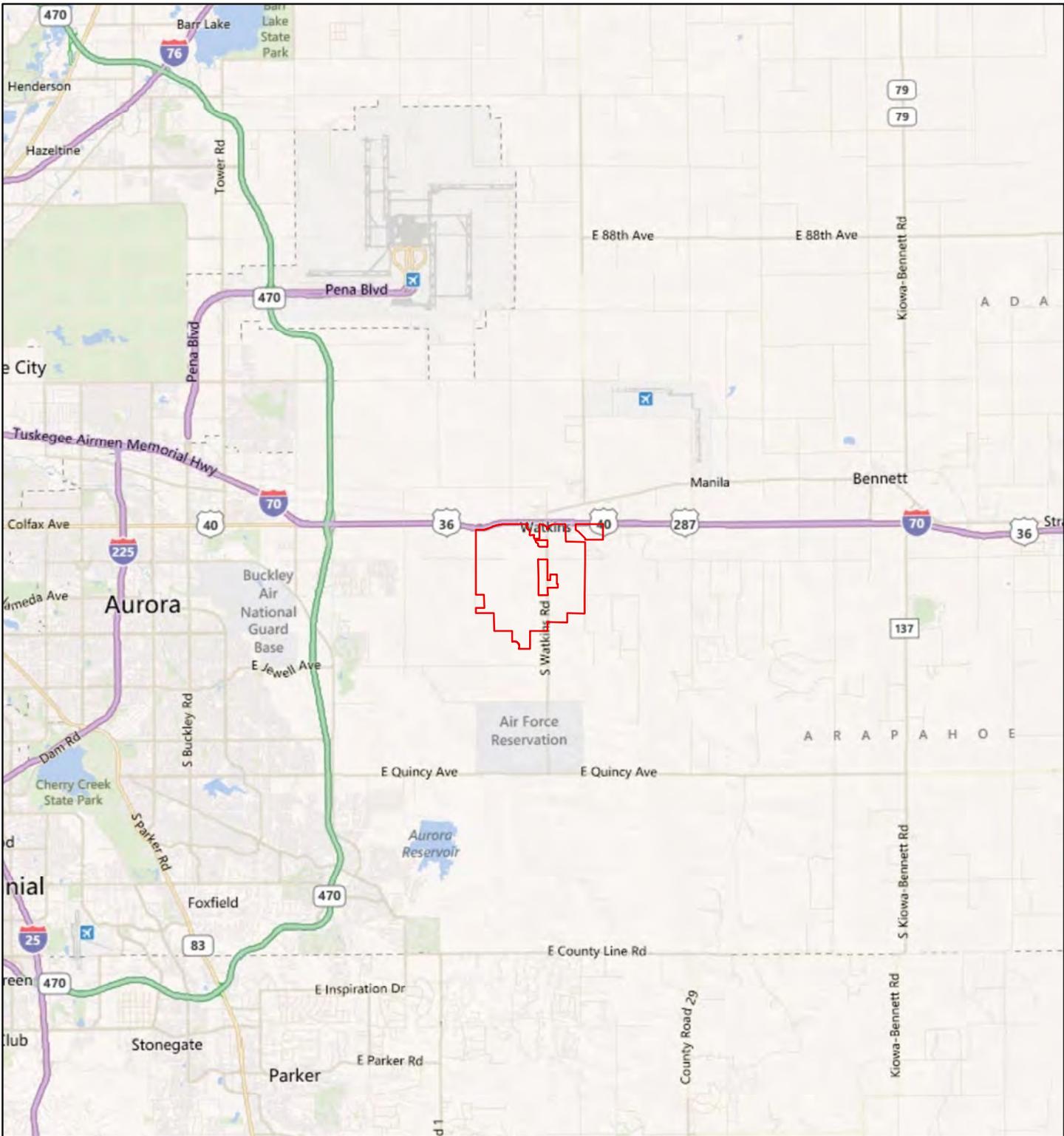
The ±5,130 acre Prosper project site is comprised of two parcels located immediately south of I-70 near Watkins, Colorado. The main parcel encompasses ±4,948 acres and is bisected by Watkins Road, which extends south from the Watkins interchange on I-70. The eastern boundary of the main parcel is formed by Imboden Road and the western boundary is Hayesmount Road, and the parcel extends ½ mile south of Mississippi Road. Two outparcels measuring ±218 acres and ±32 acres, respectively, are located within the main parcel. The second parcel (northeast parcel) is located just south of I-70 and east of Imboden Road and measures ±182 acres. See Figure 2. Approximately 25 acres of the northeast parcel would be developed.

Elevations of the project site range from a high of approximately 5,780 feet in the southern tip of the main parcel to a low of approximately 5,540 feet where Box Elder Creek leaves the northern boundary of the northeast parcel. The I-70 ROW forms the northern boundary of the project site; and agricultural lands are located to the west, east, and south. Two residential developments, Watkins Farm and Thunder Ridge Ranches, are located to the northeast between the main parcel and the northeast parcel. A church and small cemetery are located inside a jog in the north boundary of the main parcel. A 30-foot-wide Amoco gas pipeline easement crosses the northern part of the main parcel from southeast to northwest, and there are a few valve structures located along the easement.

Most of the project area is characterized by fallow and actively farmed dryland wheat fields dissected by numerous small, discontinuous and often poorly defined swales that drain to the north below I-70. Two streams are present within the project site: Coyote Run Creek, an intermittent stream that flows through the main parcel, and Box Elder Creek, an ephemeral stream located in the northeast parcel. Most of the native vegetation has been replaced by agricultural land use, however remnant areas of native grassland and riparian communities are present. These areas of native vegetation are in a disturbed condition and contain a high percentage of non-native, weedy species.

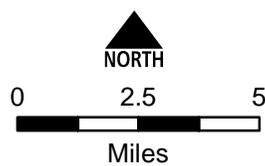
## 3.0 Methods

Heather Houston of Western Ecological Resource conducted field reconnaissance on the project site on March 26, 2012. Pedestrian surveys were used to inventory the potential wetlands and surface water features. These resources were mapped on an aerial photograph base and their boundaries were drawn in ArcGIS. FEMA-mapped 100-year floodplains were provided to Western Ecological Resource by Vogel & Associates based on FEMA's Flood Insurance Rate Maps (FIRMs) available online. Urban Drainage and Flood Control District (UDFCD) studies were accessed online at [http://www.udfcd.org/downloads/down\\_pub\\_fhad1.htm](http://www.udfcd.org/downloads/down_pub_fhad1.htm).



**Legend**

 Boundary April 2012

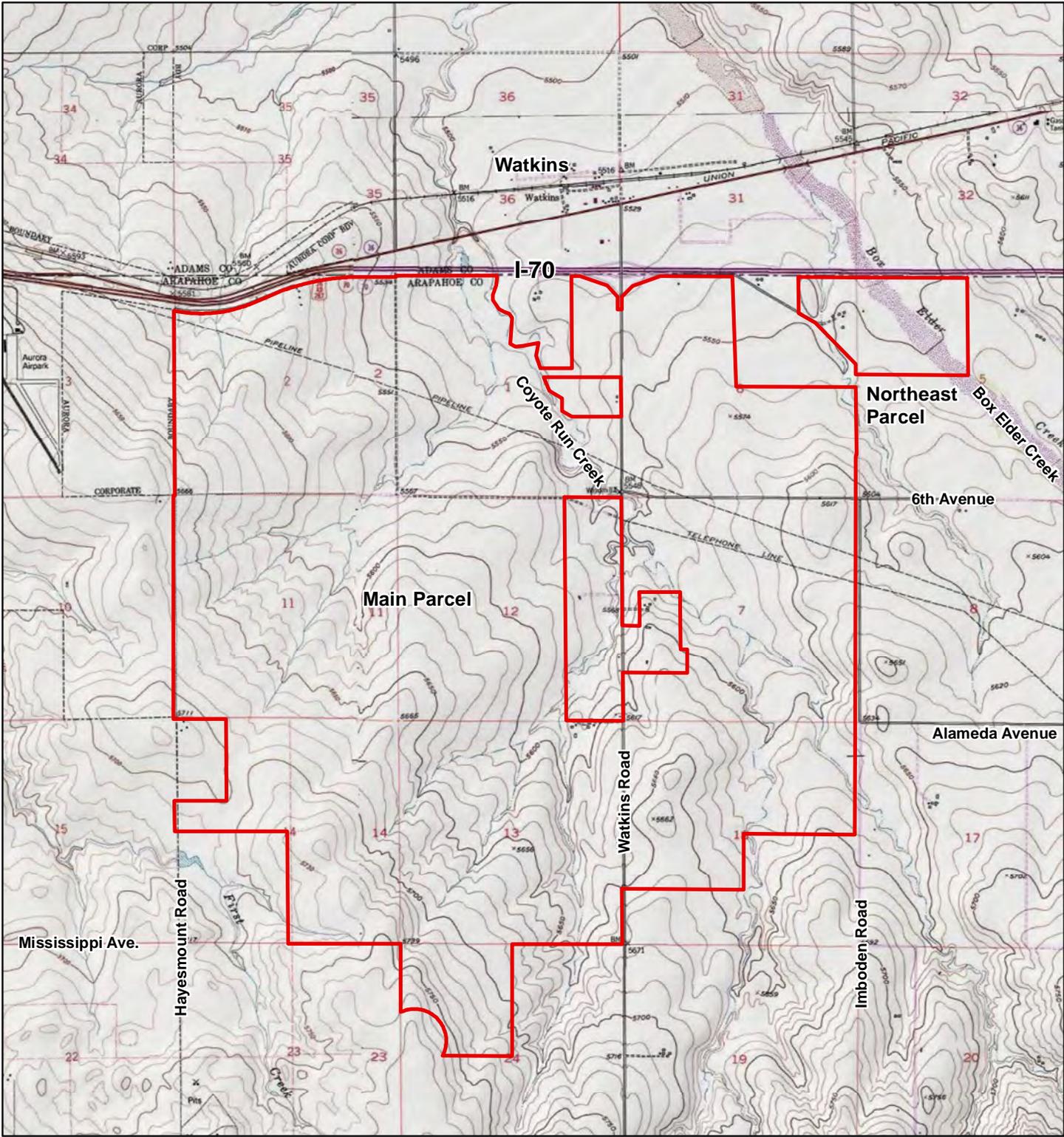


**Figure 1. Vicinity Map Prosper Project**

Date: April 2012

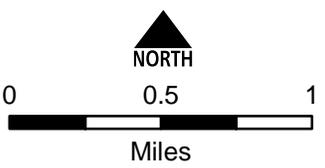


**Western Ecological Resource, Inc.**  
 711 Walnut Street, Boulder, CO 80302  
 (303) 449-9009



**Legend**

 Boundary April 2012



**Figure 2. Project Location Map  
Prosper Project**

Date: April 2012

 **Western Ecological Resource, Inc.**  
711 Walnut Street, Boulder, CO 80302  
(303) 449-9009

## 4.0 Surface Water Features

### 4.1 Box Elder Creek

The Box Elder Creek watershed is extremely long and narrow, extending approximately 100 miles from its headwaters at the Monument Divide in El Paso County to the confluence with the South Platte River near Kuner, Colorado (CH2MHill, 1995). Approximately 3,000 linear feet of Box Elder Creek are located within the northeast parcel (Photos 1 & 2). The broad, flat and sandy stream channel reaches more than 400 feet wide and covers approximately 42 acres of the project site (Photos 1 & 2). In the vicinity of the project site, Box Elder Creek is an ephemeral stream that only contains flowing water after major storm events. Groundwater data collected by HRS Water Consultants, Inc. (HRS, 2012) indicate the water table was approximately 8-10 feet below the stream bed elevation on March 5-6, 2012.

The streambed itself and the adjacent sandy riparian habitat have low vegetation cover and unstable soils subject to wind and water erosion. This area is also subject to sand deposition during storm events. The Arapahoe County Soil Survey (USDA SCS, 1971) has mapped this area as Sandy Alluvial Land (Su) (Figure 3). Characteristically, this soil type is droughty and unstable. It is subject to yearly flooding, deposition of sand, and soil blowing.

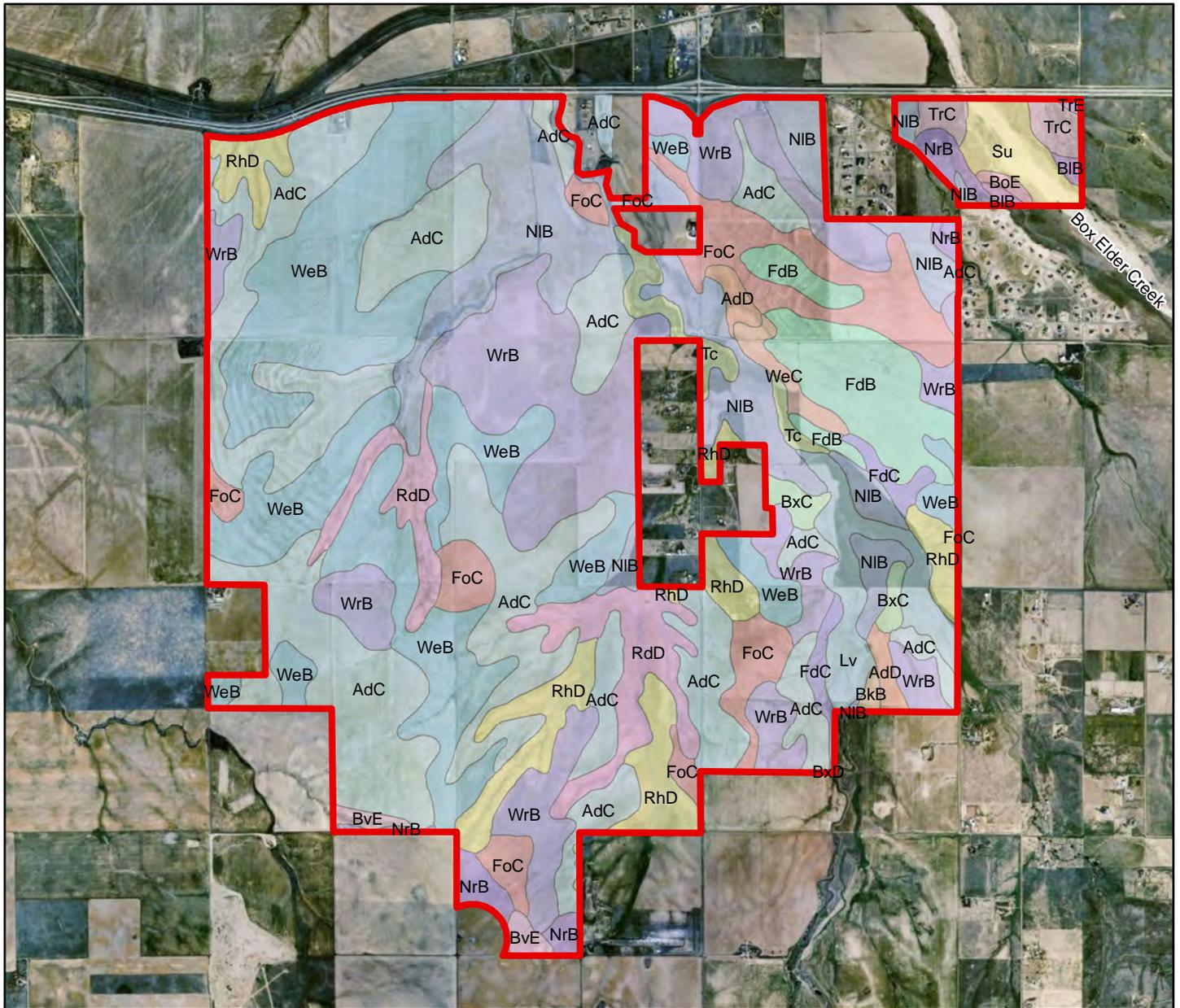
Box Elder Creek has been the subject of several UDFCD studies; a comprehensive Flood Hazard Area Delineation prepared by CH2MHill in 1995 encompassed approximately 15 miles of Box Elder Creek, including the project site. The CH2MHill report notes the erodible nature of the channel, which may change in shape, width, and direction during flood events. The study notes that the project reach has a markedly straight, braided form that differs from the meandering channel pattern observed over much of the creek's length. It concludes that the straight, braided form of this reach is most likely the result of aggradation processes that occur when sediment-laden flows infiltrate this reach, leaving sediments to accumulate in fans on the channel bottom (CH2MHill, 1995). This is supported by observations from local residents noted in the 1995 study; a resident living four miles upstream of I-70 stated that water flowed by his property on Box Elder Creek for more than two months during the summer of 1993, including one runoff event that produced a flow depth of 2-3 feet, however none of this flow reportedly reached I-70, presumably because the water infiltrated the sandy stream bed, leaving any suspended materials behind.

### 4.2 Coyote Run Creek

Coyote Run Creek is an ephemeral stream that flows into Box Elder Creek approximately 4.7 miles north of the project boundary. As noted by CH2MHill (1995), it is a major tributary of Box Elder Creek and is characterized by a meandering channel pattern. Approximately 22,268 linear feet of Coyote Run Creek are located within the main parcel, however the upper limits are characterized by poorly defined swales whereas the lower  $\pm 11,000$  linear feet have a more well-defined channel with pronounced side slopes (Photos 3-5).

The upper portion of the creek is located within fallow and actively farmed agricultural fields, whereas the lower  $\pm 11,000$  linear feet contain three small areas of potential wetlands and sandy riparian habitat dominated by sandbar willow, peachleaf willow, and plains cottonwood trees in several places. In other areas, the lower reach of the stream is vegetated by introduced grasses and weeds.

Two of the potential wetlands on Coyote Run Creek are in an eroded headcut and a scour pool that have lowered the channel bed elevation closer to the groundwater table. In the scour pool, only a small area of stagnant water was observed. The third potential wetland is in a broad area of the channel that has some facultative wetland plants, but it may not have a wetland hydrology. In the riparian areas, many of the willows have died, indicating reduced access to water over the past several years. Coyote Run Creek only carries infrequent flows, primarily following storm events.

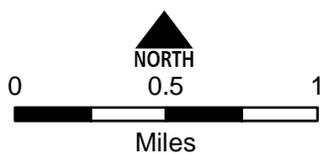


**Legend**

- Project Boundary
- AdC - Adena-Colby Silt Loams, 1-5 % slopes
- AdD - Adena-Colby Silt Loams, 5-9% slopes
- BkB - Beckton Loam, 0-3% slopes
- BIB - Bijou Sandy Loam, 0-3% slopes
- BoE - Blakeland Loamy Sand, 1-20% slopes
- BvE - Bresser-Tuckton Sandy Loam, 5-20% slopes
- BxC - Buick Loam, 3-5% slopes
- BxD - Buick Loam, 5-9% slopes
- FdB - Fondis Silt Loam, 1-3% slopes
- FdC - Fondis Silt Loam, 3-5% slopes
- FoC - Fondis-Colby Silt Loams, 3-5% slopes
- Lv - Loamy Alluvial Lands
- NIB - Nunn Loam, 0-3% slopes
- NrB - Nunn-Bresser-Ascalon Complex, 0-3% slopes
- RdD - Renohill Loam, 3-9% slopes
- RhD - Renohill-Buick Loams, 3-9% slopes
- Su - Sandy Alluvial Lands
- Tc - Terrace Escarpments
- TrC - Truckton Loamy Sand, 1-5% slopes
- TrE - Truckton Loamy Sand, 5-20% slopes
- WeB - Weld Fine Sandy Loam, 0-3% slopes
- WeC - Weld Fine Sandy Loam, 3-5% slopes
- WrB - Weld-Deertail Silt Loams, 0-3% slopes

**Figure 3. Soil Map Prosper Project**

Date: April 2012



**Western Ecological Resource, Inc.**  
711 Walnut Street, Boulder, CO 80302  
(303) 449-9009

The soil along the lower ±11,000 linear feet of Coyote Run Creek is mapped in the Arapahoe County Soil Survey as terrace escarpments (soil map unit Tc) (Photo 6; Figure 3). Erosion is a severe hazard in these areas, particularly water erosion, and soil slipping and sloughing are common.

## **5.0 Proposed Development**

The Prosper Development Plan, prepared by Vogel and Associates, is illustrated by Figure 4. The proposed land uses are summarized in tabular form on the figure. The project would include 9,000 residential units on 2,790 acres; commercial/retail, mixed use, medical/educational, industrial/office space; civic space; a 29 acre community park; a wastewater treatment plant; a potential 81-surface-acre reservoir; detention and water quality ponds; and 1,534 acres of open space and rights-of-way. The open space will provide a buffer around the perimeter and a significant portion of the open space will be used for recreation and agricultural purposes.

## **6.0 Impacts to Surface Water Quality**

### **6.1 Potential Impacts**

Currently, the Prosper project site does not contain any permanent water bodies and only infrequently contains flowing water in Box Elder Creek and Coyote Run Creek after significant precipitation events. The only surface water observed during field reconnaissance in March 2012 was a small stagnant area in a scour pool within Coyote Run Creek that measured less than 100 square feet.

Due to the highly erodible soil types on the project site, there is the potential for water erosion which could convey sediments downstream. However, the project will have a comprehensive regional storm drainage and water quality system. The Prosper project will have a comprehensive storm drainage and water quality system. Specifically, surface water runoff from the proposed development will be directed to a series of detention and water quality ponds and would only release stormwater at historic rates.

The 100-year floodplain of both streams and their smaller tributary drainages are planned for open space, and vegetation cover would be maintained to reduce the potential for wind and water erosion (Figure 4). Although Box Elder Creek is poorly vegetated, the reach within the northeast parcel is an area of aggradation, where the velocity of the stream slows down and sediments are deposited creating a deep, sandy layer in the stream bed. During infrequent, large storm events these sediments could potentially be remobilized.

Along Coyote Run Creek, site-specific geotechnical studies could be used to determine the stability of the escarpments, and fluvial morphology and/or engineering studies would determine channel stability given the increase of sediment and increased peak flow volumes. These studies would also determine if slope and/or channel bank stabilization methods are required along Coyote Run Creek. According to the proposed development plan, the slopes are to remain in open space (see Figure 4), which will ensure that a vegetative cover helps to protect them from erosional forces. In addition, Arapahoe County regulations stipulate that historic drainage patterns must be preserved, steep slopes protected, and that site grading provide adequate conveyance paths for stormwater runoff (Arapahoe County, 2010).

As noted above, the UCFCD has conducted several comprehensive flood studies along Box Elder Creek and Coyote Run Creek, including the 1995 study by CH2MHill. UDFCD's website indicates they are planning a Master Drainage Plan and Flood Hazard Area Delineation for that reach located immediately downstream of the project site from I-70 to DIA, to be completed in 2012. Data from this and previous studies will be used to develop an appropriate stormwater

# PROSPER

PARCELS OF LAND SITUATED IN SECTIONS 5, 6, 7 & 18, T.4S., R.64W., AND SECTIONS 1, 2, 11, 12, 13, 14 & 24, T.4S., R.65W., OF THE 6TH P.M. COUNTY OF ARAPAHOE, STATE OF COLORADO ARAPAHOE COUNTY 1041 PERMIT

## LEGEND

### RIGHTS-OF-WAY

- Major Arterial
- Minor Arterial
- Boulevard
- Connector Road

### SCHOOLS & PARKS

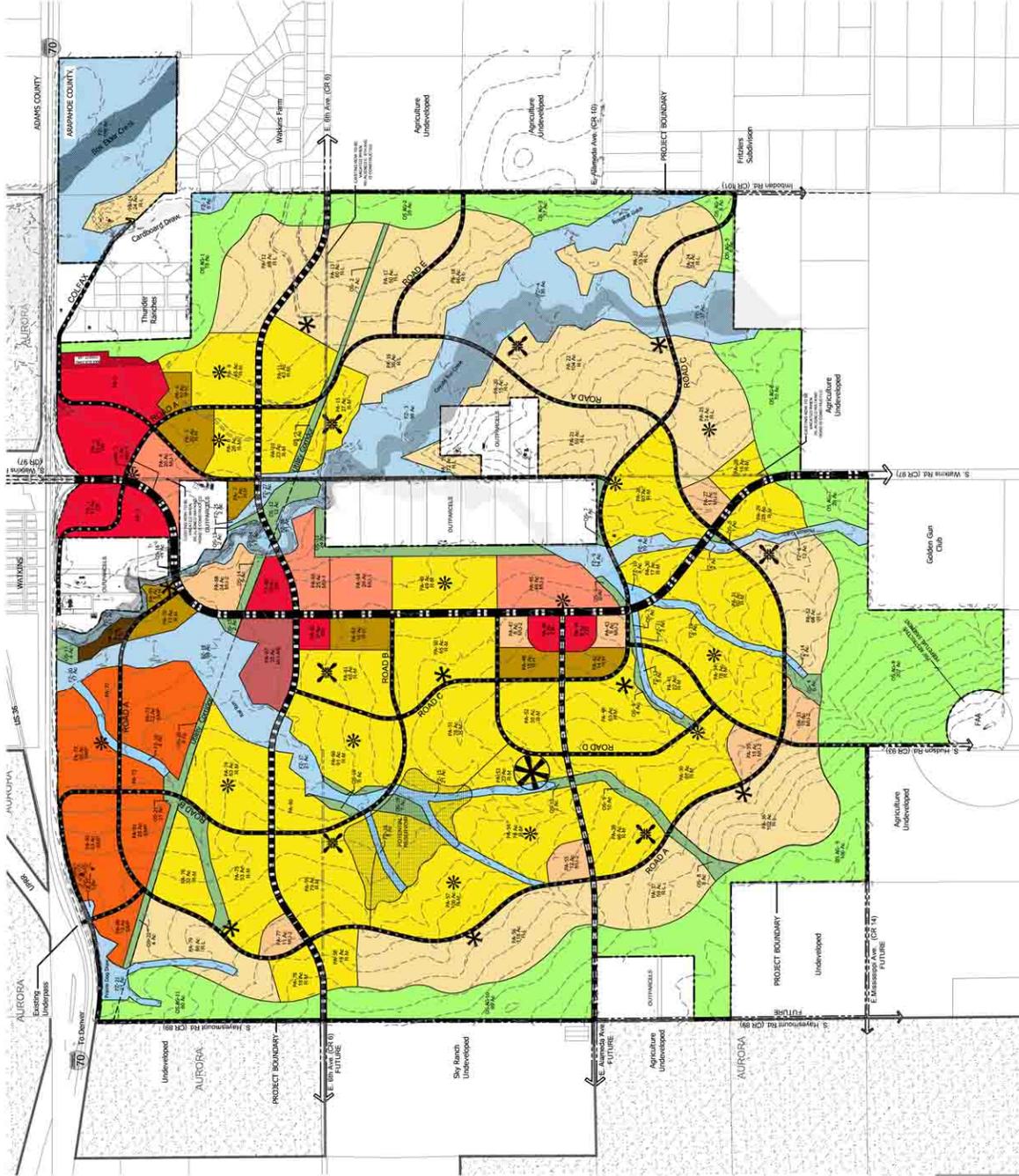
- School / Park
- Community Park
- Neighborhood Park
- Pocket Park

### WATERWAYS

- FEMA 100 Year Floodplain
- FEMA Floodway
- Potential Reservoir

### Land Use

Abbr.	Land Use
CR	Commercial/Retail
MU-1	Mixed Use Commercial
MU-2	Mixed Use Residential
MU-HE	Mixed Use (Medical / Educational / Campus)
EMP	Employment (Light Industrial/Flex/Office)
	Residential
R-L	Low Density Residential
R-M	Medium Density Residential
R-H	High Density Residential
WWT	Waste Water Treatment
FZ	F-Zone (Floodplain)
OS	Open Space
OS-AG	Open Space - Agricultural



Scale:

Date:	JUNE 4, 2012
Revision:	OCTOBER 19, 2012
Date:	FEBRUARY 7, 2014
Date:	JULY 9, 2013
Date:	JUNE 20, 2014



**VOGEL & ASSOCIATES**  
 Denver, Colorado 80202-5566  
 (303) 993-4388

FIGURE 4: LAND DEVELOPMENT PLAN

management and drainage plan that will minimize the potential for erosion on the project site and downstream areas.

The stormwater management and drainage plan, maintenance of a vegetative buffer along the streams, and the designation of open space corridors will reduce the potential for water quality impacts associated with the proposed development.

With urbanization, some of the project site would be converted to impervious surfaces such as rooftops, parking lots, roads and other structures, thus reducing aquifer recharge areas and causing more runoff into drainageways. However, a properly designed stormwater management system that incorporates water quality storage will reduce the potential for erosion and water quality impacts associated with the proposed development. The proposed Waste Water Treatment Plant would be constructed to comply with state water quality standards. In addition, Best Management Practices specified by Arapahoe County would be employed during construction to reduce the potential for water quality impacts.

## **6.2 Impervious Surfaces & Stormwater Runoff**

This property is included within the *Coyote Run and Upper Box Elder Creek Outfall Systems Planning Study* - CH2MHill 12/1995, and more recently the *Phase 1 Drainage Report for Prosper, Co* - March/2013 by Engineering Partners Inc. The Urban Drainage and Flood Control District has recently begun work on the Major Drainageway Plan for Box Elder Creek, which includes this property and is expected to be completed the 4<sup>th</sup> quarter of 2013.

The 1995 OSP identified above provides drainage and flood control planning guidance, based upon anticipated land development. The study identifies projected flow rates and runoff volumes and identifies various alternative methods to control the increased flow and to maintain channel stability. The study recommends 2 alternatives which include both regional stormwater detention and water quality capture and treatment, and onsite detention and water quality capture and treatment. Recommended channel stability methods vary from the use of grade control structures to wetland bottom channel and or grass lined channel implementation.

It is anticipated that the Major Drainageway Plan (not completed as of this date) will provide an update to the recommendations of the 1995 OSP report.

The Phase 1 Drainage Study, which accompanies the application for approval of the Planned Development for Prosper, identifies the planned methods of providing drainage and flood control, water quality capture and treatment, and channel stability within the Prosper property. It is identified within this report that the natural (i.e. existing) condition of this property yields an impervious factor of no more than 2%.

A summary table of anticipated impervious area is presented below based upon maximum projected use within each proposed Land Use (zoning) category, identified in the Planned Development.

The increase in impervious area can generate significant increases in runoff rates of flow and runoff volumes, and increased degradation of the water quality through increases in sedimentation and nutrients without proper control.

Rates of flow within the natural waterways/channel within Prosper (excluding Coyote Run) will increase approximately 250% (average rate of increase at the downstream end of analysis -100 year event). Regional and Subregional stormwater detention (with EURV controls) and Water Quality Treatment Facilities are proposed in accordance with the Phase 1 report to provide water quality treatment to these flows and to insure that historic rates of flow are released to adjacent downstream properties.

ZONE CATEGORY	Impervious Factor(%)	Approx Total Acreage
Rural Residential	45	1051
Medium Residential	50	1494
High Residential	80	100
Commercial Retail	85	182
Mixed use	70	264
Employment	80	218
Open Space(onsite)	0	165
Open Space (AG)	2	767
Waste Treatment Plant	60	9
Flood Zone	0	619
Right of Way	78	242

With such increases in flow rate within the natural channels, channel stability must be maintained. The methods proposed within the Phase 1 report include strategically located channel check (grade control) structures to maintain uniform and non-erosive flow velocity, and grass lined or wetland bottoms where appropriate.

It is noted in the Phase 1 report that Coyote Run will not be used to transport developed flows on this property. Sub regional Detention (with EURV controls) and WQ facilities will be located adjacent to Coyote Run, whose function is to intercept and treat upstream runoff prior to being released to Coyote Run, at historic levels of flow. Channel stability will also be provided to Coyote Run through the use of strategically located Grade control structures and floodplain management methods.

An additional aspect of the Water Quality control within the Prosper Development, and as noted in the Phase 1 report, is the reduction of "directly connected impervious areas", which will be achieved through the use of grass buffers/swales (or other approved means) prior to those flows being released into a natural channel .

The final aspect of water quality management is identified through the use of "Source Controls" to control illicit discharges from the property.

All the above aspects of flood control and water quality management identified within the Phase 1 report, will ensure channel stability to the level of actually decreasing natural channel sedimentation/degradation, while also providing a filtering of chemicals such as nutrients and pesticides through the slow release and percolation of water quality volumes.

7.0 Photos



**Photo 1.** Box Elder Creek. (3/26/12).



**Photo 2.** The broad, sandy streambed of Box Elder Creek is more than 400 feet wide. (3/26/12).



**Photo 3.** Potential Wetland 2 (PW-2) is a stand of narrowleaf cattails and peachleaf willow within the stream channel of Coyote Run Creek. (3/26/12).



**Photo 4.** Sandy riparian habitat located along the lower portion of Coyote Run Creek. (3/26/12).



**Photo 5.** Area of Coyote Run Creek vegetated by smooth brome, Canada thistle, & other weedy species. (3/26/12).



**Photo 6.** Terrace escarpment (Tc) along Coyote Run Creek. (3/26/12).

## 8.0 References

- Arapahoe County Board of Commissioners. 2006. Regulations Governing Areas and Activities of State Interest in Arapahoe County. 1041 Regulations. Arapahoe County, Colorado.
- Arapahoe County. 2010. Arapahoe County Grading, Erosion and Sediment Control Manual. Public Works and Development, Arapahoe County. Available at <http://co.arapahoe.co.us/Departments/PW/Engineering/GESC/GESC.asp>. Accessed March 23, 2012.
- Arapahoe County. 2011. Arapahoe County Land Development Code Book. Available at [http://www.co.arapahoe.co.us/Departments/PW/Planning/Land%20Development%20Code/land\\_development\\_code\\_toc.asp](http://www.co.arapahoe.co.us/Departments/PW/Planning/Land%20Development%20Code/land_development_code_toc.asp). Accessed March 23, 2012.
- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. La Roe. 1979. Classification of wetlands and deepwater habitats of the United States. U.S. Fish and Wildlife Service Pub. FWS/OBS-79/31, Washington, D.C., 103 p.
- CH2MHill. 1995. Flood Hazard Area Delineation (FHAD) for Coyote Run and Upper Box Elder Creek. Prepared for Urban Drainage and Flood Control District. Accessed at: [http://www.udfcd.org/downloads/down\\_pub\\_fhad1.htm](http://www.udfcd.org/downloads/down_pub_fhad1.htm)
- Wright Water Engineers. 2001. Flood Hazard Area Delineation for Lower Box Elder Creek Watershed. Prepared for Adams County, City and County of Denver, and the Urban Drainage and Flood Control District, September 2001. Accessed at: [http://www.udfcd.org/downloads/pdf/publications/fhad\\_new/Box%20Elder%20Creek%20Lower%20Watershed%20FHAD%202001.pdf](http://www.udfcd.org/downloads/pdf/publications/fhad_new/Box%20Elder%20Creek%20Lower%20Watershed%20FHAD%202001.pdf)
- Western Ecological Resource, Inc. 2012. Prosper Project Arapahoe County 1041 Application, Section 12. Environmental Impact Analysis, e. Wetlands & Riparian Habitats and g. Terrestrial & Aquatic Plant Life. Boulder, Colorado. April 2012.
- Western Ecological Resource, Inc. 2012. Prosper Project Arapahoe County 1041 Application, Section 12. Environmental Impact Analysis, h. Soils, Geologic Conditions & Natural Hazards. Boulder, Colorado. April 2012.
- U.S. Department of Agriculture – Soil Conservation Service (USDA-SCS). 1971. Soil Survey of Arapahoe County. USDA-SCS.

# **Prosper Project**

Arapahoe County 1041 Application  
Section 12 Environmental Impact Analysis  
d. Ground Water Quality & Quantity

*Prepared for:*

**Vogel & Associates**  
475 W. 12<sup>th</sup> Avenue, Suite E  
Denver, CO 80204

*Prepared by:*

**Hydraulic and Water Resources:**  
HRS Water Consultants, Inc.  
8885 W. 14<sup>th</sup> Avenue  
Lakewood, CO. 80215

**July 10, 2013**

## **Tables**

1. Prosper Farms Contiguous Lands – Summary of Denver Basin Water Underlying Approximately 5,262.2 Acres
2. Box Elder Creek Test Hole Drilling Summary
3. Box Elder Creek Alluvial Well Data
4. Lower Arapahoe Well Data
5. Laramie-Fox Hills Well Data
6. Lower Arapahoe and Laramie-Fox Hills Ground-Water Withdrawal and Drawdown Analysis Input Parameters
7. Ground-Water Declines After 100 Years of Pumping

## **Figures**

1. Prosper Farms Investments, LLC – Watkins Area Land
2. Prosper Farms – Box Elder Creek Investigation
3. Alluvial Aquifer Wells
4. Arapahoe Aquifer Wells
5. Laramie-Fox Hills Aquifer Wells

## **Appendices**

- A. Arapahoe County Comprehensive Plan, Appendix G, Leonard Rice, 2001, Figures 5-3 and 5-6
- B. Box Elder Creek Test Hole Lithology

## Arapahoe County Development Requirements

### 12.d. Groundwater Quality and Quantity

#### 12.d.i. Map and Description of all groundwater, include any and all aquifers that are affected by the proposed project. At a minimum, the description should include:

In this project, ground water will be pumped from the Box Elder Creek alluvial, Lower Arapahoe, and Laramie-Fox Hills aquifers located on the Prosper property. Due to the clay and shale layers between the Lower Arapahoe and Laramie-Fox Hills aquifers and the Denver and Upper Arapahoe aquifers, the Denver and Upper Arapahoe aquifers will not be affected by pumping from the Lower Arapahoe and Laramie-Fox Hills aquifers. A map of the Arapahoe and Laramie-Fox Hills aquifers is included in the Arapahoe County Comprehensive Plan, Appendix G, Leonard Rice, 2001, Figure 5-3. This map is included in this report as Appendix A. The Lower Arapahoe aquifer is below the Upper Arapahoe aquifer. The base of the Lower Arapahoe aquifer ranges from approximately 1,300 feet on the east to approximately 1,500 feet below ground level on the west side of the project area (Figure 5-3). The Laramie-Fox Hills aquifer lies below the Laramie Formation which lies below the Lower Arapahoe aquifer. The base of the Laramie-Fox Hills aquifer ranges from approximately 1,800 feet on the east to approximately 2,100 feet below ground level on the west side of the project area (Figure 5-3).

Denver Basin ground water beneath Prosper is decreed to Prosper Farms Investments, LLC in Division 1 Water Court Case No. 11CW22. Table 1 is taken from the 11CW22 decree. Table 1 shows the ground water type and the annual withdrawal amounts for each Denver Basin aquifer beneath Prosper.

<b>Aquifer</b>	<b>Ground-Water Type</b>	<b>Annual Withdrawal (af/yr)</b>
Denver	Not Nontributary – Actual	876.0
Denver	Not Nontributary – 4%	1,298.6
Upper Arapahoe	Not Nontributary	1,314.0
Lower Arapahoe	Not Nontributary	626.0
Laramie-Fox Hills	Not Nontributary	1,310.6
Total		5,425.2

The lands included in Table 1 annual withdrawals are shown on Figure 1. The land area shaded in purple on Figure 1 is not included in the Table 1 annual withdrawal values. The 11CW22 decree includes 3,250.6 af/yr of nontributary ground-water in the Upper Arapahoe, Lower Arapahoe, and Laramie-Fox Hills aquifers. As discussed in subsequent sections of this document, the Prosper project anticipates that it will only pump a total amount of 1,558 af/yr from the Lower Arapahoe and Laramie-Fox Hills aquifers at build out.

A map showing the lateral extent of the Box Elder Creek alluvial aquifer is included in the Leonard Rice, 2001 report as Figure 5-6. This figure is also included in Appendix A. First Creek drains a very small southwestern portion of the property. The First Creek alluvium on the property is not considered an alluvial aquifer (Leonard Rice, 2001).

A portion of the Box Elder Creek alluvial aquifer is within the Prosper boundary. This aquifer is located in the northeast portion of the project area. Figure 2 is a map of the subject property, Box Elder Creek, and test holes completed in the Box Elder Creek alluvium.

Box Elder Creek in the vicinity of the project area is ephemeral, with surface water flow only during major precipitation events. In general, water from the alluvium is used for irrigation purposes with minor domestic use. Water from this aquifer could be used for municipal and other new uses with an approved Water Court decree and plan for augmentation.

On March 5<sup>th</sup> and 6<sup>th</sup>, 2012, six Box Elder Creek test holes were drilled on the northeastern portion of Prosper to evaluate the lithologic characteristics of the Box Elder Creek alluvial aquifer. The Box Elder Creek test-hole locations are shown on Figure 2. Appendix B includes a lithologic log description for each test hole. Table 2 summarizes the Box Elder Creek test hole results.

<b>Table 2</b>				
<b>Box Elder Creek Test Hole Drilling Summary</b>				
Test Hole	Depth to Bedrock (feet)	Depth to Water (feet)	Saturated Thickness (feet)	Approximate Saturated Sand (feet)
TH-1	35	14.5	20.5	19
TH-2	37	12	25	20-25
TH-3	44.5	13.9	30.6	25-30
TH-4	36.5	7.8	28.7	23-28
TH-5	42	10	32	25-40
TH-6	41	11.7	29.3	14

The test holes were drilled to bedrock. Test Hole 1 was drilled on the far west edge of the valley on the terrace below the high point. Test Holes 2 and 3 were drilled on the same terrace. Test Hole 4 was drilled within the active channel of Box Elder Creek. Test Holes 5 and 6 were drilled on the terrace to the east of the active channel. Test Hole 6 is against the east edge of the terrace. The test holes were drilled using hollow-stem augers. Split-spoon samples were taken every 5 feet from 10 feet to bedrock. The samples recovered were described in the field. Table 2 lists the static water level, depth to bedrock, total saturated thickness, and an estimated thickness of saturated sand for each test hole. The alluvial material penetrated in the six test holes was mainly medium-grained sand with finer- and coarser-grained sand lenses. There were thin clay lenses scattered through the sand. Very little gravel was penetrated except near the bedrock towards the bottom of the test hole. Test Hole 6 was mainly clay with some sand. In general, the cleaner (less clay) material was encountered from Test Hole 4 to the southwest.

Based on the test hole drilling results a Box Elder Creek alluvial test production well and two monitoring wells were installed in April of this year. A three day pumping test was also completed on the Box Elder Creek test production well in April. Based on the results of the test production well installation and pumping test a properly located and constructed Box Elder Creek alluvial aquifer production well should be able to pump approximately 300 to 350 gallons per minute (“gpm”). A Box Elder Creek alluvial well would be used to divert totally consumable indoor use return flows, a portion of the lawn irrigation return flows, and Box Elder Creek water under free river conditions. A Water Court decree would be required to produce totally consumable indoor use return flows from a Box Elder Creek alluvial well.

***a) Seasonal water levels in each subdivision of the aquifer affected by the project.***

**Box Elder Creek Alluvial Aquifer**

Depth to groundwater varies somewhat seasonally due to variable precipitation recharge and ground-water pumping. Depth to ground water during the non-irrigation season is generally greater than 10 feet below ground level.

**Lower Arapahoe Aquifer**

The ground-water level in the Lower Arapahoe aquifer beneath Prosper is above the top of the Lower Arapahoe aquifer. Water levels do not vary seasonally. Rather, ground-water levels decline in response to pumping. Ground-water levels will decline while wells are pumping and recover after a well is turned off. There is no Lower Arapahoe annual ground-water level decline data near Prosper. The nearest Lower Arapahoe aquifer ground-water level measurement data is approximately 12 miles east and west of Prosper. These data show an annual ground-water level decline of approximately ten feet per year (Pottorff, 2011). These data do not reflect Lower Arapahoe ground-water levels beneath Prosper.

#### Laramie-Fox Hills Aquifer

The ground-water level in the Laramie-Fox Hills aquifer beneath Prosper is above the top of the Laramie-Fox Hills aquifer. Water levels do not vary seasonally. Rather, ground-water levels decline in response to pumping. Ground-water levels will decline while wells are pumping and recover after a well is turned off. There are Laramie-Fox Hills aquifer ground-water level measurements in the vicinity of Prosper. These data show an annual ground-water level decline of approximately 15 feet per year (Pottorff, 2011). Ground-water level data was evaluated from 2001 to 2008.

#### *b) Artesian pressure in the aquifers.*

##### Box Elder Creek Alluvial Aquifer

The Box Elder Creek alluvial aquifer is an unconfined aquifer. Unconfined aquifers are under atmospheric pressures. Artesian pressure does not apply to unconfined aquifers.

##### Lower Arapahoe Aquifer

The ground-water level in the Lower Arapahoe aquifer beneath Prosper is approximately 500 feet above the top of the Lower Arapahoe aquifer. Lower Arapahoe ground-water level information was taken from the Colorado Division of Water Resources well records.

##### Laramie-Fox Hills Aquifer

The ground-water level in the Laramie-Fox Hills aquifer beneath Prosper is approximately 700 feet above the top of the Laramie-Fox Hills aquifer. Laramie-Fox Hills ground-water level information was taken from the Colorado Division of Water Resources well records.

#### *c) Groundwater flow directions and levels.*

##### Box Elder Creek Alluvial Aquifer

Ground water flow direction within the alluvium is in a general northerly, down-gradient direction following the course of the creek bed.

##### Lower Arapahoe Aquifer

Ground water within this aquifer flows in a general northwesterly direction (Robson, 1981, HA-647 Arapahoe combined).

### Laramie-Fox Hills Aquifer

Ground water within this aquifer flows in a general northwesterly direction (Robson, 1981, HA-650).

- d) Existing aquifer recharge rates and areas and the methodology used to calculate recharge to the aquifer from any recharge sources.**

### Box Elder Creek Alluvial Aquifer

Leonard Rice Engineers, Inc. completed a *Water Resource Study for Eastern Arapahoe County*, in 2001. Table 5-5 of the Leonard Rice, 2001 report, includes the following estimates of Box Elder Creek inflow and outflow:

Ground Water Inflow to County	3,500 af/yr
Ground Water Recharge within County	1,100 af/yr
Total Inflow	4,600 af/yr
Natural Evapotranspiration	1,100 af/yr
Ground Water Pumping within County	500 af/yr
Ground Water Discharge from County	2,900 af/yr
Total Outflow	4,500 af/yr
Total Inflow – Total Outflow	100 af/yr

### Lower Arapahoe and Laramie-Fox Hills Aquifers

The Lower Arapahoe and Laramie-Fox Hills aquifers are recharged by precipitation on their outcrop areas and by streams and rivers that cross their outcrop areas. Where the aquifer underlies an alluvial aquifer, there will be some recharge from downward movement of groundwater within the alluvial aquifer into the underlying bedrock aquifer. Because the bedrock aquifers contain a high percentage of very low permeability claystone, recharge rates are very low. In their 2001 Water Resource Study Section 5.1.3, Leonard Rice estimated recharge to the Denver Basin aquifers, "... that recharge is two percent of precipitation, or about 8,000 acre feet per year within the study area." beneath the eastern portion of Arapahoe County. Their study area encompassed 576 square miles. This is a total recharge rate for all of the Denver Basin aquifers.

- e) For aquifers to be used as part of a water storage system, methodology and results of tests used to determine the ability of aquifer to impound groundwater and aquifer storage capacity.*

There are no definite plans to store water in the Box Elder Creek alluvial aquifer or the Denver Basin aquifers beneath Prosper. Storage of treated surface water in the Denver Basin aquifers has been shown to be successful by water providers located in the Denver Basin, including Centennial Water and Sanitation District, Colorado Springs Utilities, and others. Water storage in alluvial aquifers is common place where hydrogeologic conditions are favorable. This project may store in the Box Elder Creek alluvial aquifer, the Lower Arapahoe, or the Laramie-Fox Hills aquifers in the future. The necessary permits and approvals from County, State, and Federal government agencies would be required to store water underground.

- f) Seepage losses expected at any subsurface dam and at stream-aquifer interfaces and methodology used to calculate seepage losses in the affected streams, including description and location of measuring devices.*

Seepage losses related to Denver Basin well pumping on Prosper is not an issue. The nontributary Lower Arapahoe and Laramie-Fox Hills aquifers will be used to supply water to the Prosper development. Seepage losses for nontributary aquifers are a very small percentage (approximately 0.1 percent) of pumping and these seepage losses occur many miles north of Prosper and Arapahoe County.

- g) Existing groundwater quality and classification.*

#### Box Elder Creek Alluvial Aquifer

Water quality for the Box Elder Creek alluvium is not known but appears to be suitable for irrigation. In Section 6.0 of the Leonard Rice 2001 Water Resource Report, Table 6-5 lists the water quality for nearby alluvial aquifers.

Under existing conditions, Box Elder Creek alluvial ground water may have elevated levels of nitrate and total dissolved solids due to return flows from upgradient agricultural irrigation.

#### Lower Arapahoe and Laramie-Fox Hills Aquifers

The best water quality data available at this time is the Leonard Rice, 2001 report that was completed for Arapahoe County. Section 1.3 states that, "The water quality of all of the aquifers ranges from good on the west side of the County to fair to poor on the east side. Total dissolved solids, sulfate and hardness increase from west to east across the County." (page 3, 1.3 8)). Section 6.0 of the same report includes a water quality analysis for each aquifer. In the Leonard Rice report, the Upper and

Lower Arapahoe aquifers are combined as the Arapahoe aquifer. Prosper is located in the west-central portion of Arapahoe County where the Leonard Rice report states that ground water quality is good. The Leonard Rice, 2001 report water quality analyses for the Arapahoe and Laramie-Fox Hills aquifers provides some information on water quality with respect to primary drinking water standards. Water quality sample data for some of the primary drinking water standards is provided. This data shows that the Arapahoe and Laramie-Fox Hills ground water meets the reported primary drinking water standards. Arapahoe and Laramie-Fox Hills water quality data is also provided for secondary water quality standards. This data shows that some of the Arapahoe and Laramie-Fox Hills ground water samples tested exceed some of the secondary water quality standards.

Lower Arapahoe water quality is normally better than Laramie-Fox Hills water quality. Treatment of Denver Basin ground water for iron and manganese is normal. These parameters can be treated at the wellhead. Chlorination also occurs at the wellhead. Any potential issues related to total dissolved solids (“TDS”) are expected to be resolved with blending in Phase 1. Lower Arapahoe and Laramie-Fox Hills ground water will be treated as necessary in order to provide good quality water to Prosper.

***h) Location of all water wells and their uses.***

Well information for the Box Elder Creek, Lower Arapahoe, undifferentiated Arapahoe, and Laramie-Fox Hills aquifers was obtained from the Colorado Division of Water Resources database. The relevant available information was tabulated and well location figures were prepared for each aquifer. Box Elder Creek Alluvial Aquifer well information is included on Table 3 and Figure 3. Lower Arapahoe and undifferentiated Arapahoe Aquifer well information is included on Table 4 and Figure 4. Laramie-Fox Hills Aquifer well information is included on Table 5 and Figure 5. The tabulated well information includes: a counter that locates the well on its respective figure, the well owner’s name, the well permit number, the Water Court case number, the county in which the well is located, well location data, the well use, the annual appropriation, the date the well permit was issued, the well depth, the depth to the well’s top perforation, the depth to the well’s bottom perforation, the well’s permitted pumping rate, and the well’s recorded depth to ground water.

***12.d.ii. Description of the impacts and net effect of the project on groundwater.***

A ground-water withdrawal and drawdown analysis for Lower Arapahoe and Laramie-Fox Hills pumping was performed to approximate the net effect ground water level withdrawals within three miles of the Prosper boundary. A total demand of 1,558 af/yr was withdrawn from the Lower Arapahoe and Laramie-Fox Hills aquifer over a consecutive 100-year pumping period. A total amount of 519.3 af/yr was withdrawn from four Lower Arapahoe aquifer wells and a total amount of 1,038.7 af/yr was withdrawn from four Laramie-Fox Hills aquifer wells (519.3 af/yr + 1,038.7 af/yr = 1,558 af/yr). Table 6 includes the well pumping and aquifer parameters included in the analysis.

<b>Table 6</b>		
<b>Lower Arapahoe and Laramie-Fox Hills Ground-Water Withdrawal and Drawdown Analysis Input Parameters</b>		
<b>Analysis Parameter</b>	<b>Lower Arapahoe Aquifer</b>	<b>Laramie-Fox Hills Aquifer</b>
Annual Amount (af/yr)	519.3	1,038.7
Annualized Pumping Rate per Well (gpm)	80.423	160.870
Transmissivity (gpd/ft)	494	755
Storage Coefficient (unitless)	0.0004	0.0004
Pumping Time (years)	100	100

Theis equation simulations were used to calculate approximate drawdown values after 100 years of continuous pumping at distances of one, two, and three miles from Prosper’s boundary. These simulations include four Lower Arapahoe wells pumping a total of 129.825 af/yr each and four Laramie-Fox Hills wells pumping 259.685 af/yr each. The results from the Lower Arapahoe and Laramie-Fox Hills Theis simulations are shown on Table 7.

<b>Table 7</b>			
<b>Ground-Water Level Declines with Distance from the Prosper Boundary after 100 Years of Continuous Pumping</b>			
<b>Aquifer</b>	<b>Drawdown at One Mile (feet)</b>	<b>Drawdown at Two Miles (feet)</b>	<b>Drawdown at Three Miles (feet)</b>
Lower Arapahoe	335	284	246
Laramie-Fox Hills	480	413	362

According to the provisions of Prosper’s 11CW22 Water Court decree Lower Arapahoe and Laramie-Fox Hills wells can be installed at any reasonable location on the property. Although specific Lower Arapahoe and Laramie-Fox Hills well locations have not been selected, the Table 7 drawdown results can be used to approximate the impacts to Lower Arapahoe, Arapahoe, and Laramie-Fox Hills wells at approximately one, two, and three miles from the Prosper boundary. The ground water from the Lower Arapahoe and Laramie-Fox Hills aquifers will be withdrawn from an adequate number of wells to obtain each aquifers annual ground water volume.

## REFERENCES

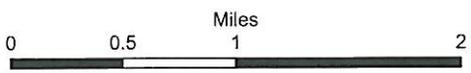
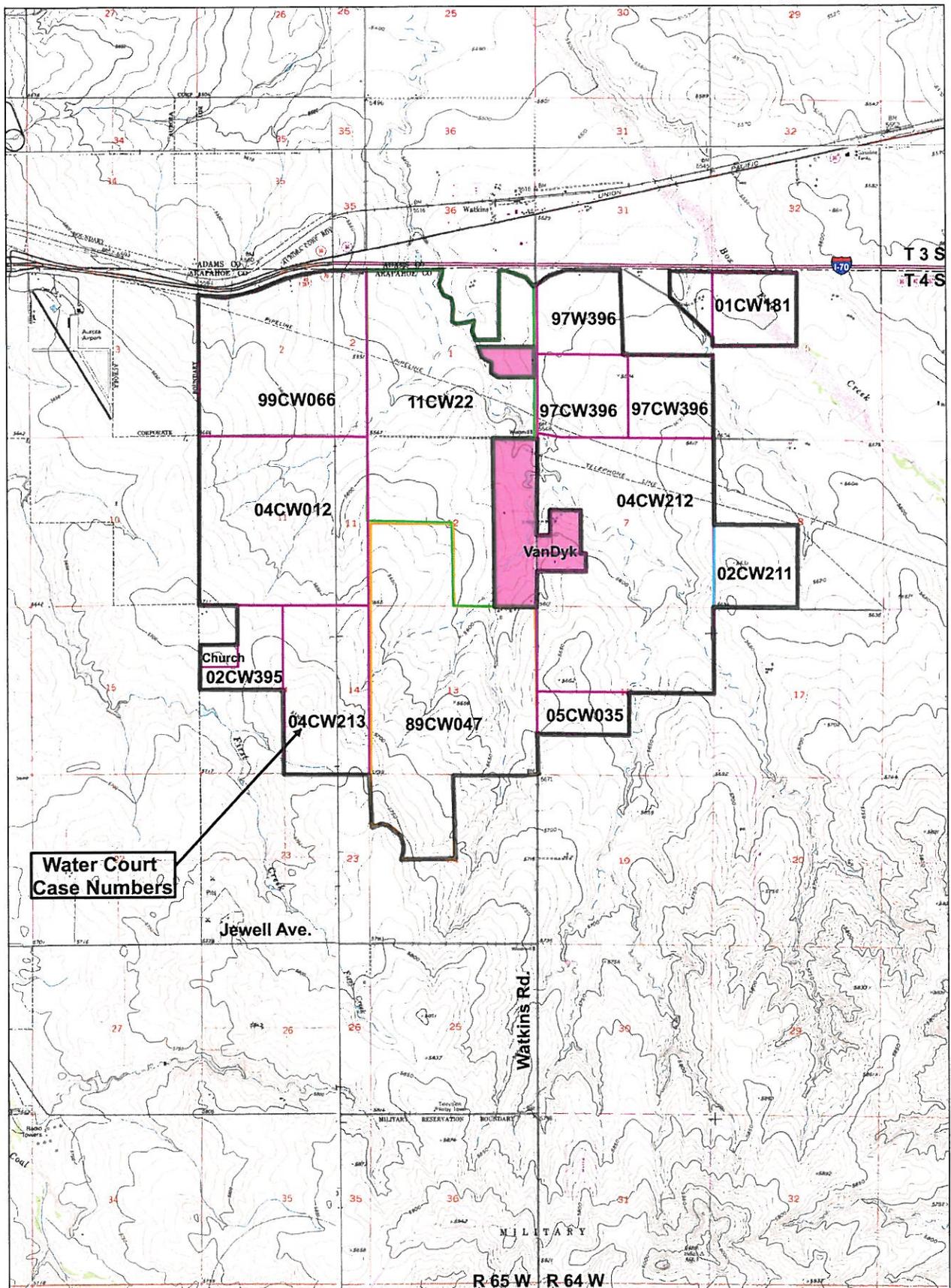
- Colorado Division of Water Resources water well database.
- Leonard Rice Consulting Water Engineers, Inc., March 2001, Water Resource Study for Eastern Arapahoe County, Project No. 1059APR01, Appendix G of the Arapahoe County Comprehensive Plan Revised January 15, 2002.
- Pottorff, Elizabeth T., 2011, Ground Water Levels in the Denver Basin Bedrock Aquifers 2011, Colorado Division of Water Resources Department of Natural Resources.
- Robson, Stanley G., 1987, Bedrock Aquifers in the Denver Basin, Colorado – A Quantitative Water-Resources Appraisal, U.S. Geological Survey Professional Paper 1257. Prepared in cooperation with the Colorado Department of Natural Resources, Office of the State Engineer, Denver Board of Water Commissioners, and Adams, Arapahoe, Douglas, Elbert, and El Paso Counties.
- Robson, S.G., Romero, J.C., and Zawistowski, S., 1981, Geologic Structure, Hydrology, and Water Quality of the Arapahoe Aquifer in the Denver Basin, Colorado. U.S. Geological Survey Atlas HA-647. Prepared in cooperation with the Colorado Department of Natural Resources, Office of the State Engineer, Denver Board of Water Commissioners, and Adams, Arapahoe, Douglas, Elbert, and El Paso Counties.
- Robson, S.G., and Romero, J.C., 1981, Geologic Structure, Hydrology, and Water Quality of the Denver Aquifer in the Denver Basin, Colorado. U.S. Geological Survey Atlas HA-646. Prepared in cooperation with the Colorado Department of Natural Resources, Office of the State Engineer, Denver Board of Water Commissioners, and Adams, Arapahoe, Douglas, Elbert, and El Paso Counties.
- Robson, S.G., Wacinski, A., Zawistowski, S., and Romero, J.C., 1981, Geologic Structure, Hydrology, and Water Quality of the Laramie-Fox Hills Aquifer in the Denver Basin, Colorado. U.S. Geological Survey Map HA-650. Prepared in cooperation with the Colorado Department of Natural Resources, Office of the State Engineer, Denver Board of Water Commissioners, and Adams, Arapahoe, Douglas, Elbert, and El Paso Counties.
- Theis, C. V., The relation Between the Lowering of the Piezometric Surface and the Rate and Duration of Discharge of a Well Using Ground-Water Storage, *Trans. Amer. Geophysical Union*, v. 16, pp. 519-524, 1935.
- VanSlyke, G., Romero, J., Moravec, G., and Wacinski, A., 1988, Geologic Structure, Sandstone/Siltstone Isolith, and Location of Non-Tributary Ground Water for the

Denver Aquifer, Denver Basin, Colorado. Colorado Division of Water Resources, Denver Basin Atlas No. 2, DBA-2.

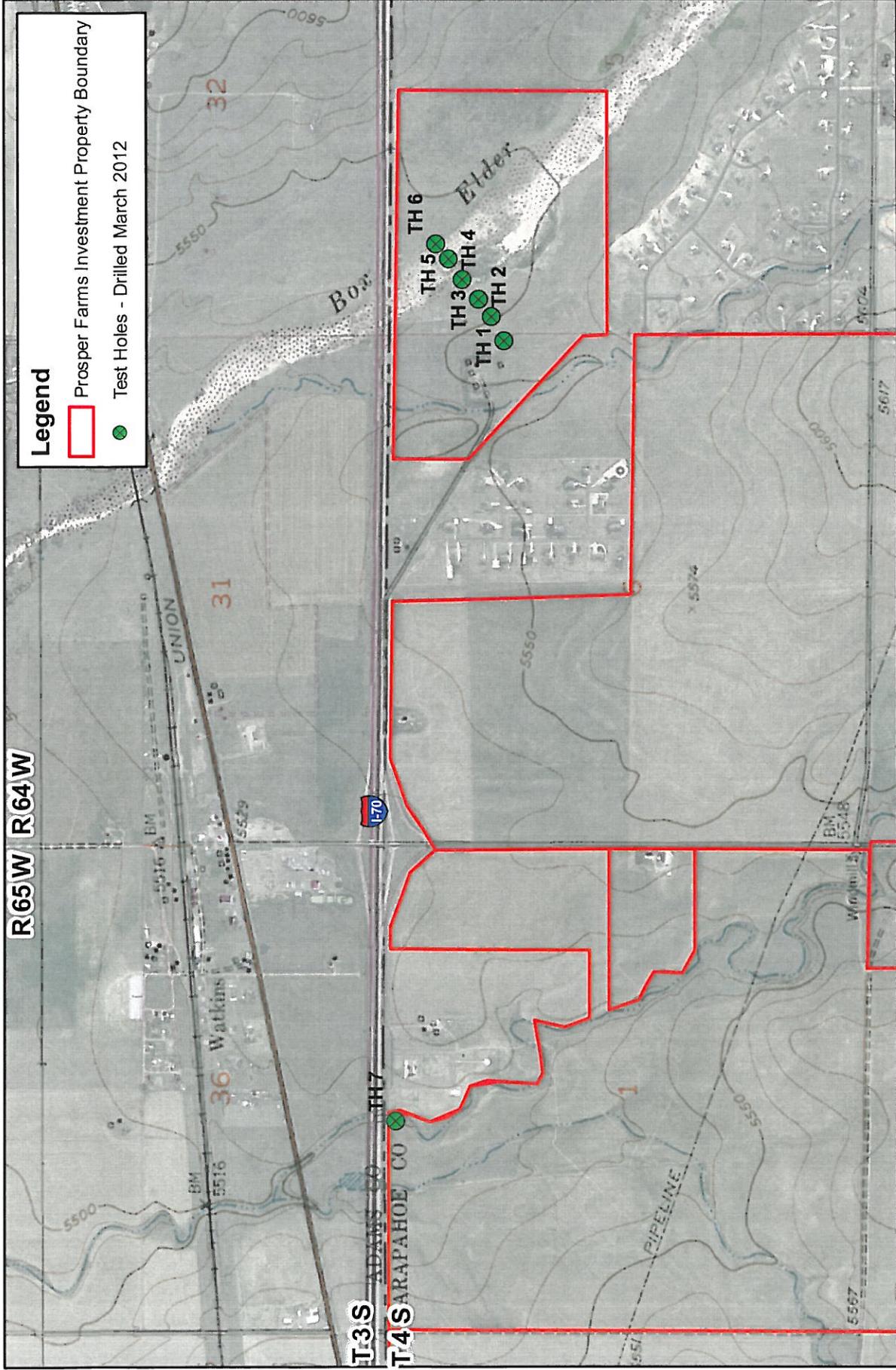
VanSlyke, G., Romero, J.C., Moravec, G., and Wacinski, A., 1988, Geologic Structure, Sandstone/Siltstone Isolith, and Location of Non-Tributary Ground Water for the Arapahoe Aquifer, Denver Basin, Colorado. Colorado Division of Water Resources, Denver Basin Atlas No. 3, DBA-3.

VanSlyke, G., Romero, J.C., Moravec, G., and Wacinski, A., 1988, Geologic Structure, Sandstone/Siltstone Isolith, and Location of Non-Tributary Ground Water for the Laramie-Fox Hills Aquifer, Denver Basin, Colorado. Colorado Division of Water Resources, Denver Basin Atlas No. 4, DBA-4.

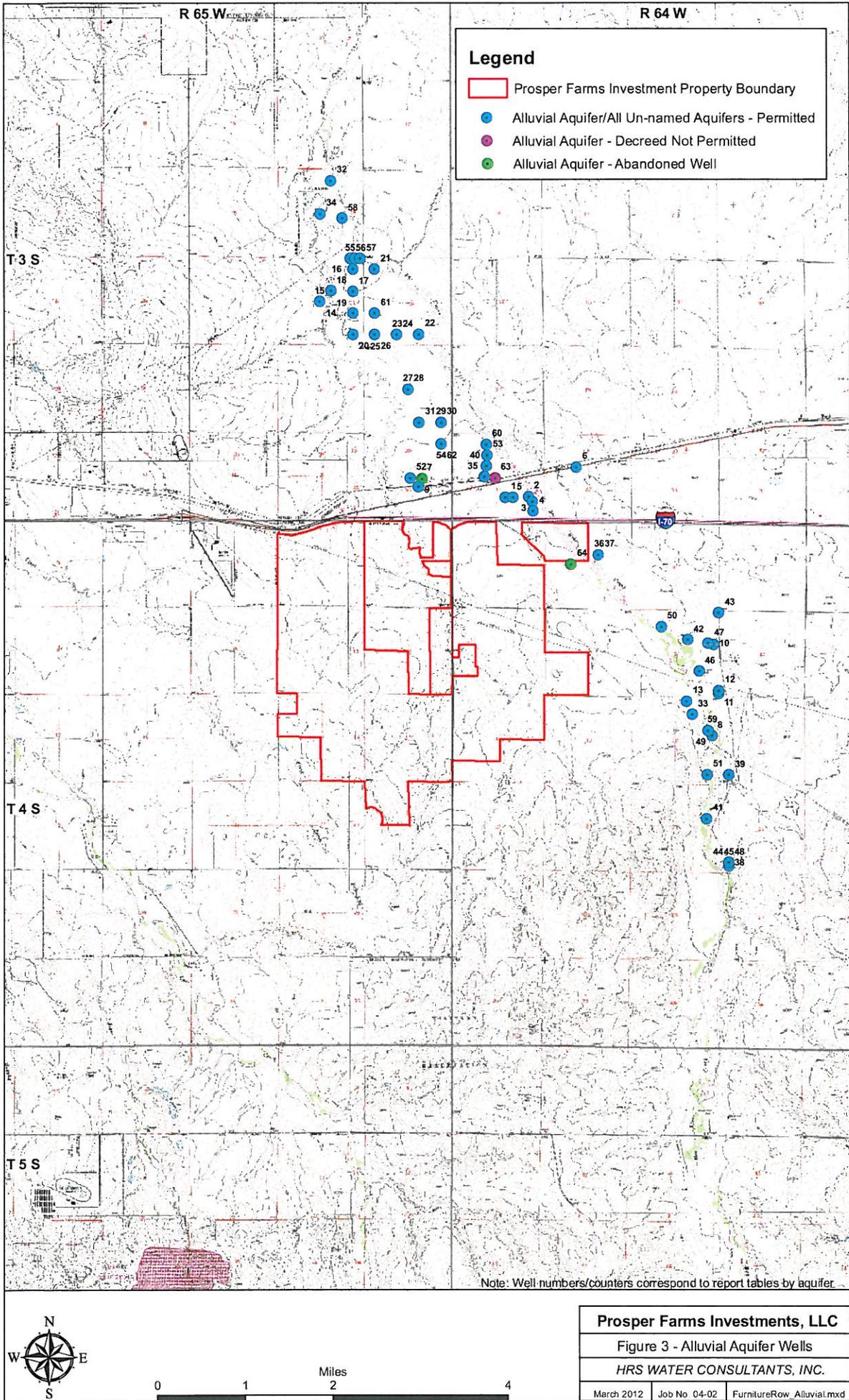
## FIGURES

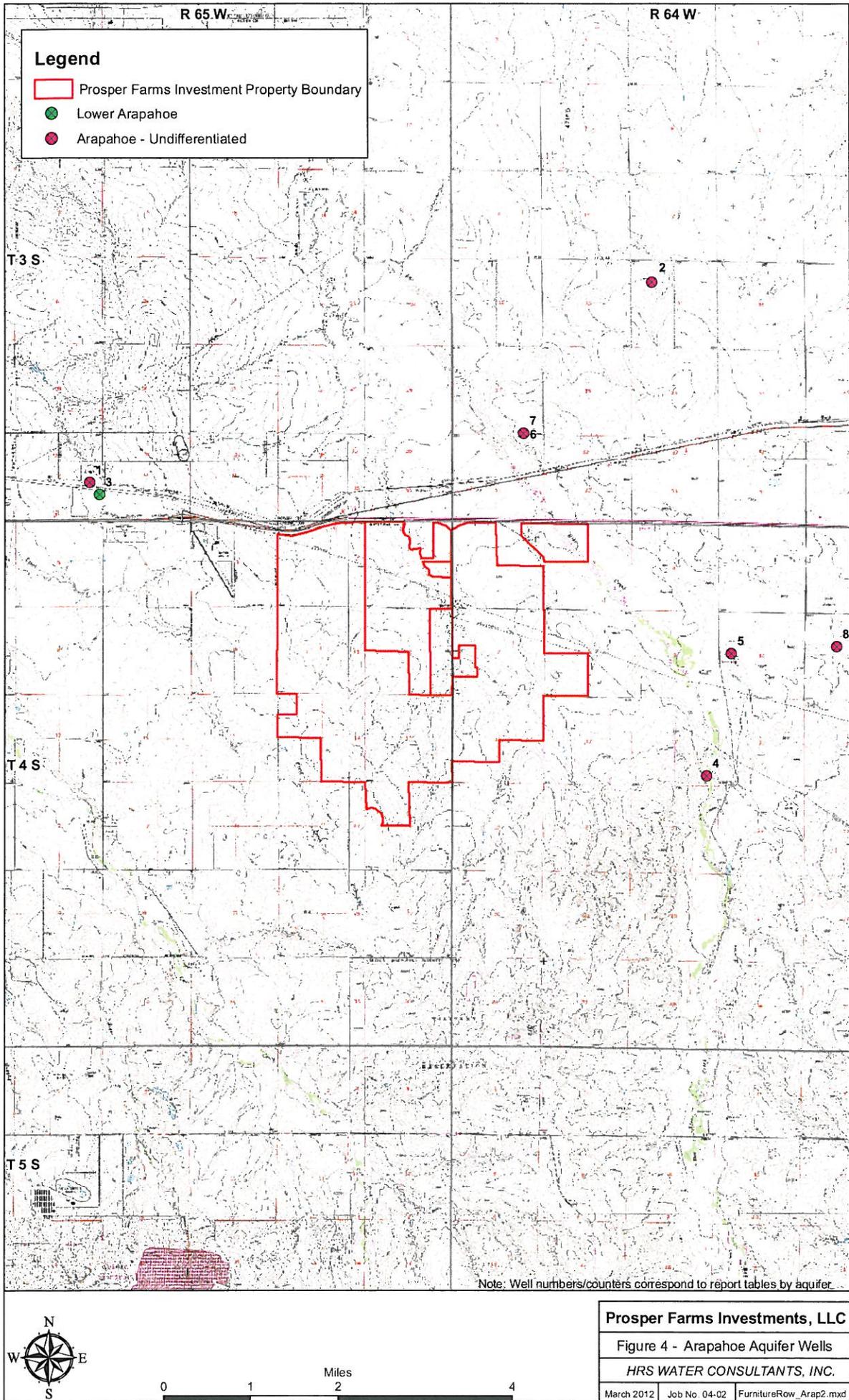


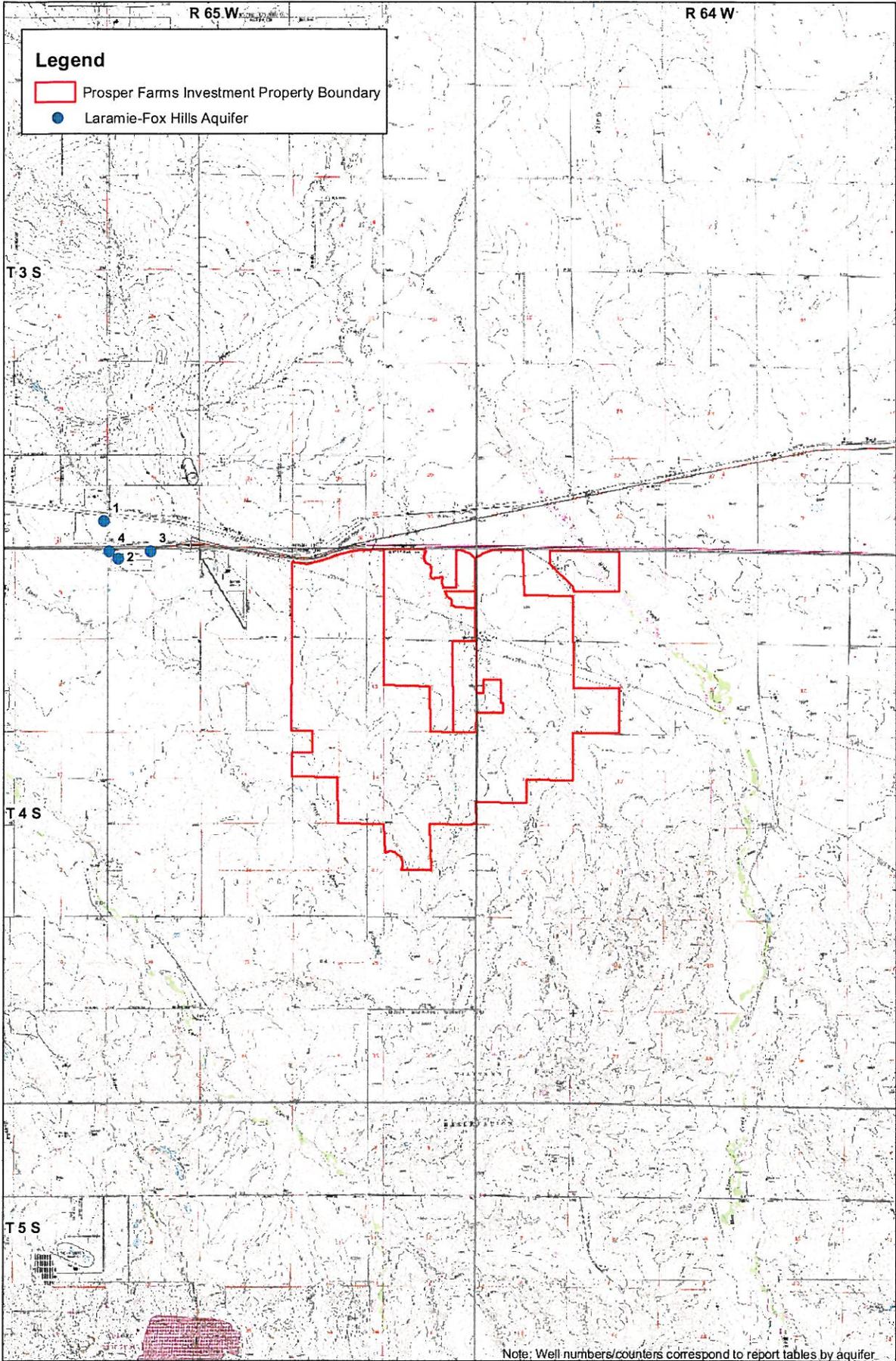
<b>Prosper Farms Investments, LLC</b>		
Figure 1 Prosper Farms Investments, LLC - Watkins Area Land		
HRS WATER CONSULTANTS, INC.		
June 2013	Job No. 04-02	FurnitureRow1.mxd



<b>Prosper Farms Investments, LLC</b>	
Figure 2 - Prosper Farms Box Elder Creek Investigation	
HRS WATER CONSULTANTS, INC.	
March 2012	Job No. 04-02.1
	FurnitureRow_THs.mxd



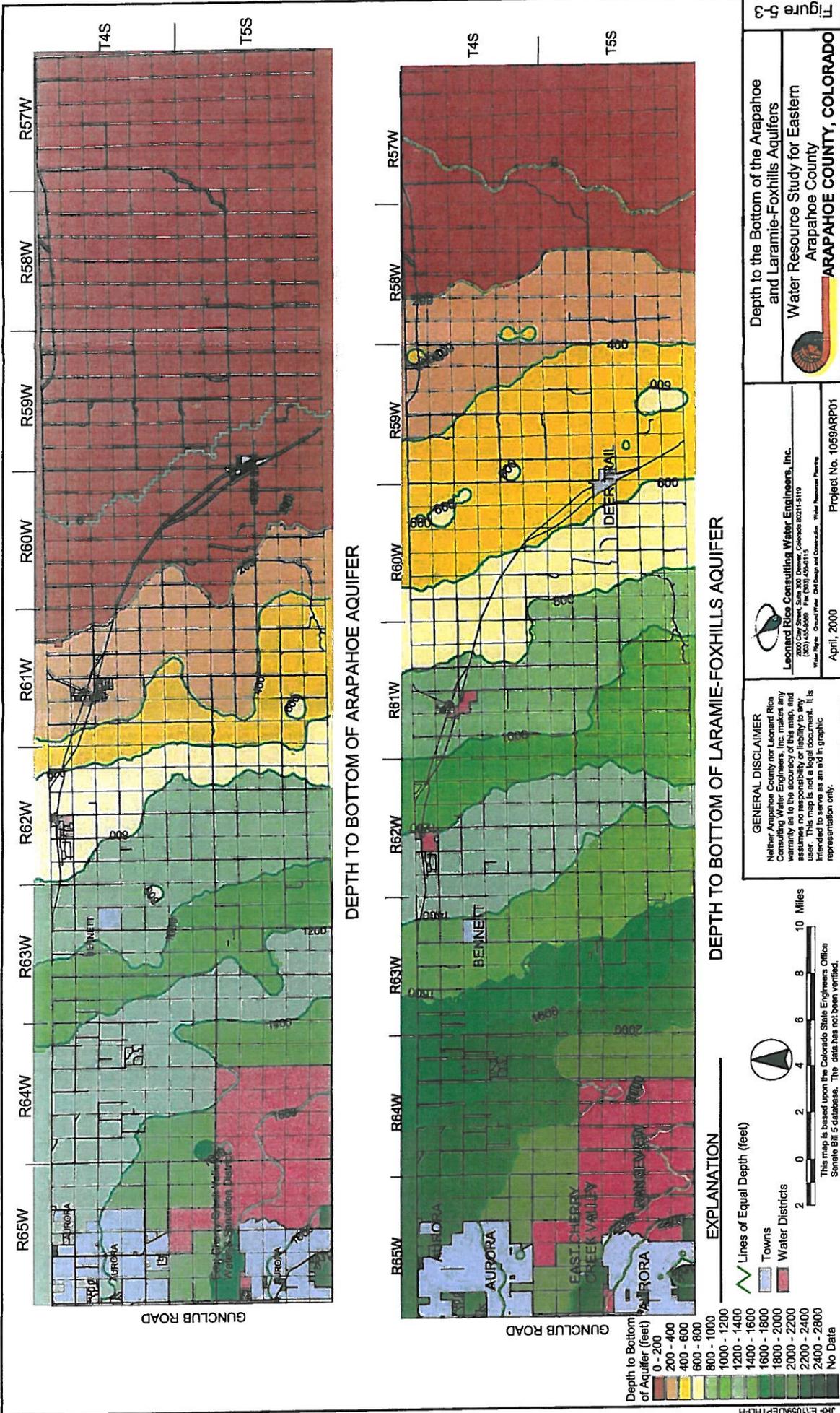




	<b>Prosper Farms Investments, LLC</b>		
	Figure 5 - Laramie-Fox Hills Aquifer Wells		
	<i>HRS WATER CONSULTANTS, INC.</i>		
	March 2012	Job No. 04-02	FurnitureRow_LFH.mxd

## **APPENDIX A**

**Arapahoe County Comprehensive Plan,  
Appendix G, Leonard Rice, 2001  
Figures 5-3 and 5-6**



DEPTH TO BOTTOM OF ARAPAHOE AQUIFER

DEPTH TO BOTTOM OF LARAMIE-FOXHILLS AQUIFER

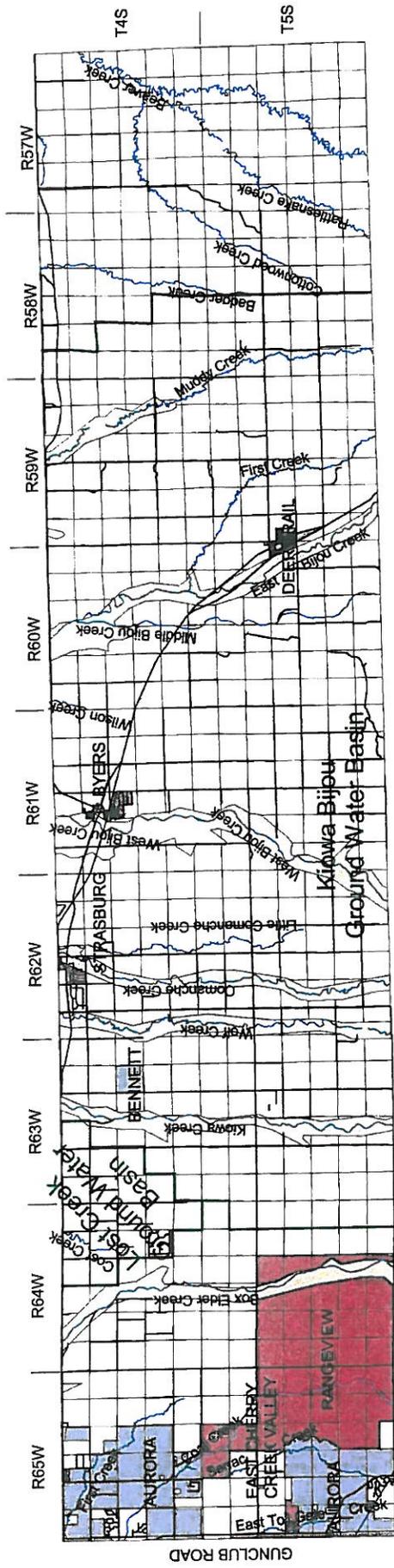
- Depth to Bottom of Aquifer (feet)
- 0 - 200
  - 200 - 400
  - 400 - 600
  - 600 - 800
  - 800 - 1000
  - 1000 - 1200
  - 1200 - 1400
  - 1400 - 1600
  - 1600 - 1800
  - 1800 - 2000
  - 2000 - 2200
  - 2200 - 2400
  - 2400 - 2800
  - No Data
- EXPLANATION
- Lines of Equal Depth (feet)
  - Towns
  - Water Districts
- This map is based upon the Colorado State Engineers Office Schematic Bill 5 database. The data has not been verified.
- 0 2 4 6 8 10 Miles

**GENERAL DISCLAIMER**  
 Neither Arapahoe County nor Leonard Rica Consulting Water Engineers, Inc. makes any warranty as to the accuracy of this map, and assumes no responsibility or liability to any third party for any errors or omissions. It is intended for use as an aid in graphic representation only.

Leonard Rica Consulting Water Engineers, Inc.  
 10000 10271-15119  
 (303) 422-2000 Fax (303) 426-1115  
 Water Rights, Ground Water, Civil Design and Construction Water Resource Planning

Depth to the Bottom of the Arapahoe and Laramie-Foxhills Aquifers  
 Water Resource Study for Eastern Arapahoe County  
**ARAPAHOE COUNTY, COLORADO**

April, 2000 Project No. 1059ARPP01



**EXPLANATION**

- Alluvial Aquifers - unconsolidated sand, gravel silt and clay up to 50 feet thick
- Boundary of Designated Groundwater (Basins) Management Districts
- Towns
- Water Districts



This map is based upon the U. S. Geological Survey, Geologic Map of Colorado (1960, 1979).

**GENERAL DISCLAIMER**  
 Neither Arapahoe County nor Leonard Rice Consulting Water Engineers, Inc. makes any warranty as to the accuracy of this map, and assumes no responsibility or liability to any user. This map is not a legal document. It is intended solely for informational purposes and is a representation only.

Leonard Rice Consulting Water Engineers, Inc.  
 2001 14th Street, Suite 200, Aurora, CO 80011-1016  
 Phone: (303) 426-2888 Fax: (303) 426-0713  
 Water Rights: Ground Water, Civil Design and Construction, Water Resource Planning  
 Project No. 1059ARPO1  
 April, 2000

Lateral Extent of Alluvial Aquifers  
 Water Resource Study for Eastern Arapahoe County  
**ARAPAHOE COUNTY, COLORADO**

## **APPENDIX B**

### **Box Elder Creek Test Hole Lithology**

Box Elder Creek Test Hole Data

Drilled March 5-6, 2012

Test Hole 1

Depth (ft. below ground level)	Lithologic Description
0 – 2	soil: brown, clayey
2 – 7	Sand: fine grained, tan, clayey
7 – 10	Clay: brown, sandy – fine grained
10	Split spoon: 3, 4, 7, 9 blows per 6-inches, 1.4 ft. recovery Sand: medium grained, trace fine gravel at base, white, subrounded to subangular, moderate sorting, slightly moist
15	Split spoon: 2, 4, 4, 8 blows per 6-inches, 2.0 ft. recovery, wet Top 1.9 ft. – Clay: tan, silty, semi firm Bottom 0.1 ft. – Sand: fine grained, tan, clayey
20	Split spoon: 9, 13, 12, 11 blows per 6-inches, 1.6 ft. recovery, wet Sand: medium grained, tan with rusty lenses, fine gravel near base, subrounded to subangular, poor to moderate sorting, loose
25	Split spoon: 12, 12, 18, 15 blows per 6-inches, 1.7 ft. recovery, wet Sand: medium grained and coarse grained lenses, tan with yellowish lenses, subrounded to subangular, poor to moderate sorting, loose
30	Split spoon: 11, 14, 18, 31 blows per 6-inches, 2.2 ft. recovery, wet Sand: medium to fine grained, tan, subrounded to subangular, moderate to poor sorting
35	Split spoon: 7, 10, 16, 22 blows per 6-inches, 2.1 ft. recovery, wet Claystone: rusty at top to gray downward with organic debris, firm, weathered at top

Bedrock at 35 feet per samples

Static water level at 14.5 feet with augers at 15 feet

Test Hole 2  
(225 ft. NE of Test Hole 1)

Depth (ft. below ground level)	Lithologic Description
0 – 1	Soil: brown, sandy
1 – 10	Sand: medium to fine grained, tan, subangular to subrounded, medium sorting
10	Split spoon: 5, 10, 11, 15 blows per 6-inches, 1.4 ft. recovery, wet Sand: medium with some coarse grained, trace fine gravel, tan gray, subangular to subrounded, poor to moderate sorting
15	Split spoon: 15, 18, 16, 16 blows per 6-inches, 1.5 ft. recovery, wet Sand: as above
20	Split spoon: 8, 12, 11, 9 blows per 6-inches, 1.5 ft. recovery, wet Sand: medium to fine grained, tan, subangular to subrounded, moderate sorting, piece of gravel at top
25	Split spoon: 8, 10, 10, 12 blows per 6-inches, 2.1 ft. recovery, wet Sand: medium to coarse grained, fine gravel, tan, subangular to subrounded, slightly layered, poor sorting
30	Split spoon: 6, 6, 5, 18 blows per 6-inches, 1.7 ft. recovery, wet Sand: as above, 1 gravel lens, gravel pieces in shoe
32	small cobbles per driller
35	Split spoon: 7, 11, 10, 8 blows per 6-inches, 2.0 ft. recovery, wet Sand: as above, layered, thin clay lens near top
38.5	Split spoon: 12, 22, 30 blows per 6-inches, 2.1 ft. recovery, wet Top 1.5 ft. – Sand: fill Bottom 0.6 ft. – Claystone: gray, firm, dry

Bedrock at 37 feet per driller

Static water level at 12.0 feet with augers at 15 feet

Test Hole 3  
(225 ft. NE of Test Hole 2)

Depth (ft. below ground level)	Lithologic Description
0 – 1	Soil: brown, sandy
1 – 10	Sand: fine to medium grained, fine gravel downward, tan to brown downward, subangular to subrounded, medium sorting
10	Split spoon: 8, 10, 10, 12 blows per 6-inches, 1.9 ft. recovery Sand: medium to coarse grained with medium grained lenses, tan, subangular to subrounded, medium to poor sorting, moist
15	Split spoon: 9, 8, 10, 13 blows per 6-inches, 1.6 ft. recovery, wet Sand: as above
20	Split spoon: 9, 12, 13, 17 blows per 6-inches, 1.6 ft. recovery, wet Sand: medium grained with coarser grained lenses, tan, subangular to subrounded, medium sorting
25	Split spoon: 5, 8, 6, 11 blows per 6-inches, 1.6 ft. recovery, wet Sand: as above with several 0.1 to 0.3 ft. clayey layers
30	Split spoon: 4, 12, 16, 18 blows per 6-inches, 1.7 ft. recovery, wet Top 0.2 – Sand: as above Middle 0.2 ft. – Clay: gray, sandy Bottom 1.3 ft. – Sand: as above
35	Split spoon: 2, 2, 3, 10 blows per 6-inches, 1.8 ft. recovery, wet Top 0.25 – Sand: medium grained, tan, as above Middle 0.9 ft. – Clay: brown to gray to rusty, soft, sandy in part Bottom 0.4 ft. – Sand: as above, brown, clayey in part
40	Split spoon: 8, 13, 13, 12 blows per 6-inches, 2.1 ft. recovery, wet Sand: medium grained, trace fine gravel, tan, subangular to subrounded, medium sorting
45	Split spoon: 20, 50 blows per 6-inches, 2.2 ft. recovery, wet Top 1.3 ft. – Sand: fill Bottom 0.9 ft. – Claystone: gray to greenish gray to tan, firm, dry

Bedrock at 44.5 feet per driller

Static water level at 13.9 feet with augers at 15 feet

Test Hole 4  
(250 ft. NE of Test Hole 3)

Depth (ft. below ground level)	Lithologic Description
0 – 1	Soil: brown, sandy, some gravel on surface
1 – 10	Sand: fine to medium grained, fine gravel, cobbly from 5 to 10 ft., brown to tan downward, subangular to subrounded, medium to poor sorting
10	Split spoon: 7, 14, 11, 13 blows per 6-inches, 2.0 ft. recovery Top 0.3 ft. – Clay: gray, firm Next 1.1 ft. – Sand: medium to coarse grained, fine gravel, tan, subangular to subrounded, sorting Next 0.3 ft. – Clay: as above Bottom 0.3 ft. – Sand: medium to fine grained, tan, subangular to subrounded, medium sorting
15	Split spoon: 10, 16, 12, 17 blows per 6-inches, 2.0 ft. recovery, wet Sand: medium grained, some coarse grained lenses, tan, subangular to subrounded, medium to poor sorting
20	Split spoon: 11, 15, 15, 21 blows per 6-inches, 2.2 ft. recovery, wet Sand: as above, few fine grained lenses, trace clay near base, poor sorting
25	Split spoon: 11, 18, 20, 21 blows per 6-inches, 2.1 ft. recovery, wet Sand: as above
30	Split spoon: 10, 12, 17, 15 blows per 6-inches, 2.0 ft. recovery, wet Sand: as above, more coarse grained, red brown gravel at top, one 0.1 ft. gray clay lens
30 & 33 – 35	small cobbles per driller
35	Split spoon: 4, 5, 10, 24 blows per 6-inches, 1.8 ft. recovery, wet Top 1.2 ft. – Sand: medium to coarse grained, small gravel, subangular to subrounded, poor sorting Bottom 0.6 ft. – Sandstone: fine grained, gray to rusty, semi firm, weathered

Bedrock at 36.5 feet per samples  
Static water level at 7.8 feet with augers at 15 feet

Test Hole 5  
(250 ft. NE of Test Hole 4)

Depth (ft. below ground level)	Lithologic Description
0 – 10	Sand: medium to coarse grained, fine gravel, tan, subangular to subrounded, poor sorting
10	Split spoon: 6, 9, 11, 14 blows per 6-inches, 1.7 ft. recovery, wet Sand: medium to coarse grained, trace fine gravel, tan, subangular to subrounded, slightly clayey at base, medium to poor sorting
15	Split spoon: 11, 9, 12, 14 blows per 6-inches, 2.0 ft. recovery, wet Sand: medium to fine grained, yellowish, subangular to subrounded, medium sorting, medium to coarse grained at top, as above
20	Split spoon: 11, 9, 12, 14 blows per 6-inches, 2.0 ft. recovery, wet Top 1.1 ft. – Sand: medium grained, trace fine gravel, tan, subangular to subrounded, medium to poor sorting Bottom 0.6 ft. – Sand: fine grained, tan, clayey, subangular to subrounded, medium sorting
25	Split spoon: 8, 7, 9, 11 blows per 6-inches, 2.0 ft. recovery, wet Sand: medium to fine grained, trace coarse grained, tan, subangular to subrounded, poor sorting
30	Split spoon: 11, 12, 16, 14 blows per 6-inches, 1.5 ft. recovery, wet Sand: medium grained, tan, subangular to subrounded, medium sorting
35	Split spoon: 14, 25, 21, 20 blows per 6-inches, 1.8 ft. recovery, wet Sand: medium to coarse grained & medium grained layers, fine gravel, tan, thin clay lens near top, slightly clayey in part – brown, subangular to subrounded, poor sorting
40	Split spoon: 15, 14, 13, 22 blows per 6-inches, 1.0 ft. recovery, wet Gravel; fine to medium, tan, trace gray clay, semi firm, rusty clay coating on barrel
42	Split spoon: 14, 26, 40, 50 blows per 6, 6, 6, 5-inches, 1.7 ft. recovery, wet Claystone: gray, firm, dry

Bedrock at 42 feet per driller, maybe weathered bedrock from 40 to 42 ft.  
Static water level at 10.0 feet with augers at 10 feet

Test Hole 6  
(175 ft. NE of Test Hole 5)

Depth (ft. below ground level)	Lithologic Description
0 – 10	Sand: medium to fine grained to medium grained, fine gravel, tan to brown, slightly clayey in part, subangular to subrounded, medium to poor sorting
10	Split spoon: 2, 5, 17, 17 blows per 6-inches, 1.8 ft. recovery, wet at base Top 0.8 ft. – Clay; green gray, soft, silty, coarse grained sand lens in middle Bottom 1.0 ft. – Sand: medium to coarse grained, tan, subangular to subrounded, poor sorting
15	Split spoon: 4, 5, 7, 20 blows per 6-inches, 1.6 ft. recovery, wet Top 0.2 ft – Sand: medium to coarse grained, rusty to tan, subangular to subrounded, poor sorting Middle 0.9 ft. – Clay: gray, very sandy to very clayey sand – medium grained Bottom 0.5 ft. – Sand: as above, gravel in shoe
19 to 20	gravel per driller
20	Split spoon: 2, 4, 5, 6 blows per 6-inches, 1.8 ft. recovery, wet Clay: light gray to tan to white (caliche), soft, sandy in part
25	Split spoon: 2, 3, 5, 5 blows per 6-inches, 2.2 ft. recovery, wet Clay: as above, sandy in part, 1 thin medium to coarse grained sand lens
30	Split spoon: 2, 2, 3, 4 blows per 6-inches, 1.8 ft. recovery, wet Clay: as above, with clayey sand lenses, tannish
35	Split spoon: 9, 14, 15, 15 blows per 6-inches, 1.6 ft. recovery, wet Sand: medium grained, coarser grained lenses tan, subangular to subrounded, poor sorting
35 – 40	gravel per driller

Test Hole 6  
(continued)

Depth (ft. below ground level)	Lithologic Description
40	Split spoon: 9, 11, 15, 16 blows per 6-inches, 1.9 ft. recovery, wet Top 0.6 ft. – Sand: coarse grained to fine gravel, tan, subangular to subrounded, poor sorting Bottom 1.3 ft. – Claystone: rusty to gray, firm, several thin coarse grained sand lenses

Bedrock at 41 feet by samples

Static water level at 11.7 feet with augers at 15 feet

Test Hole 7  
(un-named western tributary to Box Elder Ck.)

Depth (ft. below ground level)	Lithologic Description
0 – 2	Soil: brown, clayey
2 – 10	Sand: medium grained, brown, very clayey to very sandy clay, less clay downward, subangular to subrounded, medium sorting
10	Split spoon: 5, 6, 8, 9 blows per 6-inches, 1.9 ft. recovery Sand: medium grained, tan, very clayey, semi firm, dry
15	Split spoon: 11, 19, 16, 16 blows per 6-inches, 2.0 ft. recovery Sand: medium to coarse grained with medium grained lenses, tan, slightly clayey, middle 0.5 ft. very clayey, subangular to subrounded, poor sorting, slightly wet at base
19 – 20	gravel and cobbles per driller
20	Split spoon: 15, 4, 4, 4 blows per 6-inches, 1.3 ft. recovery Clay: brown, very soft, pieces of broken quartz gravel, very moist
25	Split spoon: 7, 15, 20, 31 blows per 6-inches, 2.1 ft. recovery Top 0.9 ft. – Clay: brown to gray, slightly soft, very weathered claystone? Bottom 1.2 ft. – Claystone: light gray with yellow banding, dry, hard, 0.2 ft, fine grained yellow sandstone at base

Bedrock at 26 feet per driller, maybe weathered bedrock from 25 to 26 ft.  
Static water level at 24.3 feet with augers at 25 feet

County	Case No.	Permit No.	Full Name	County	par	ht	tdir	mg	tdir	sec	q160	q40	coord	coord_x	coord_y	Use	Aquifer	Annual App (A1)	Date Permit Issued	Date Well Cont	Well Depth	Ipofr	Ipofr	Pump Rate	Static Wat
1	ADAMS	20199 U	AUDORA CITY OF	ADAMS	5	3	5	64	W	31	SE	NW	1415	5	2798	IRRIGATION	ALL UNNAMED AQUIFERS	N/A	27019	41	18	23	235	14	
2	ADAMS	20199 R	AUDORA CITY OF	ADAMS	5	3	5	64	W	31	SE	NW	1510	5	994	IRRIGATION	ALL UNNAMED AQUIFERS	N/A	27019	41	18	23	235	14	
3	ADAMS	20199 S	AUDORA CITY OF	ADAMS	5	3	5	64	W	31	SE	NW	1510	5	994	IRRIGATION	ALL UNNAMED AQUIFERS	N/A	27019	41	18	23	235	14	
4	ADAMS	10541 ER	BEHRNS - 230	ADAMS	5	3	5	64	W	31	SE	NW	1415	5	638	IRRIGATION	ALL UNNAMED AQUIFERS	N/A	27019	48	20	43	510	10	
5	ADAMS	10541 ER	BEHRNS - 230	ADAMS	5	3	5	64	W	31	SE	NW	1415	5	638	IRRIGATION	ALL UNNAMED AQUIFERS	N/A	27019	48	20	43	510	10	
6	ADAMS	8660	BEHRNS FRANK	ADAMS	5	3	5	64	W	31	SE	NW	1415	5	1822	IRRIGATION	ALL UNNAMED AQUIFERS	180.0	36609	36830	47	32	47	400	10
7	ADAMS	63177	BONN GEORGE	ADAMS	5	3	5	65	W	36	SE	SW	2440	5	0	DOMESTIC	ALL UNNAMED AQUIFERS	1	26527	26517	50	30	50	15	42
8	ADAMS	51440	CALDWELL GEORGE L	ARAPAHOE	5	4	5	64	W	16	NE	SE	2317	N	400	STOCK	ALL UNNAMED AQUIFERS	0.5	26527	26517	50	30	50	15	42
9	ADAMS	23924	CHRISTIE W H	ADAMS	5	3	5	65	W	36	SE	NW	2440	5	0	STOCK	ALL UNNAMED AQUIFERS	0.5	26527	26517	50	30	50	15	42
10	ADAMS	14831 E	COFFE BILL	ADAMS	5	3	5	64	W	9	SE	SW	2177	5	70	IRRIGATION	ALL UNNAMED AQUIFERS	1	26527	26517	50	30	50	15	42
11	ADAMS	14831 E	COFFE BILL	ADAMS	5	3	5	64	W	9	SE	SW	2177	5	70	IRRIGATION	ALL UNNAMED AQUIFERS	1	26527	26517	50	30	50	15	42
12	ADAMS	2004CW125	COFFE BILL	ARAPAHOE	5	4	5	64	W	9	SE	SW	2177	5	70	IRRIGATION	ALL UNNAMED AQUIFERS	1	26527	26517	50	30	50	15	42
13	ADAMS	55192	DOUGLAS CLARENCE	ARAPAHOE	5	4	5	64	W	16	NE	NW	271	N	1934	DOMESTIC STOCK	QUATERNARY ALLUVIUM	660.0 Combined	40599	34444	32	0	0	0	0
14	ADAMS	291 WCB	DROHAN JEFF	ADAMS	5	3	5	65	W	23	NE	NW	2440	5	0	IRRIGATION	ALL UNNAMED AQUIFERS	1	26527	26517	50	30	50	15	42
15	ADAMS	214 WCB	DROHAN JEFF	ADAMS	5	3	5	65	W	23	NE	NW	2440	5	0	IRRIGATION	ALL UNNAMED AQUIFERS	1	26527	26517	50	30	50	15	42
16	ADAMS	20690 R	DROHAN JEFF	ADAMS	5	3	5	65	W	23	NE	NW	2440	5	0	IRRIGATION	ALL UNNAMED AQUIFERS	N/A	20448	59	0	0	0	0	
17	ADAMS	10699 R	DROHAN JEFF	ADAMS	5	3	5	65	W	23	NE	NW	2440	5	0	IRRIGATION	ALL UNNAMED AQUIFERS	N/A	20448	59	0	0	0	0	
18	ADAMS	10699 R	DROHAN JEFF	ADAMS	5	3	5	65	W	23	NE	NW	2440	5	0	IRRIGATION	ALL UNNAMED AQUIFERS	N/A	20448	59	0	0	0	0	
19	ADAMS	10692 R	DROHAN JEFF	ADAMS	5	3	5	65	W	23	NE	NW	2440	5	0	IRRIGATION	ALL UNNAMED AQUIFERS	N/A	20448	59	0	0	0	0	
20	ADAMS	10692 R	DROHAN JEFF	ADAMS	5	3	5	65	W	23	NE	NW	2440	5	0	IRRIGATION	ALL UNNAMED AQUIFERS	N/A	20448	59	0	0	0	0	
21	ADAMS	17298	DROHAN JEFF	ADAMS	5	3	5	65	W	25	SE	SW	0	0	0	IRRIGATION	ALL UNNAMED AQUIFERS	N/A	29900	22895	55	27	55	20	24
22	ADAMS	10695 R	DROHAN JEFF	ADAMS	5	3	5	65	W	24	SE	SW	0	0	0	IRRIGATION	ALL UNNAMED AQUIFERS	N/A	29900	22895	55	27	55	20	24
23	ADAMS	10695 R	DROHAN JEFF	ADAMS	5	3	5	65	W	24	SE	SW	0	0	0	IRRIGATION	ALL UNNAMED AQUIFERS	N/A	29900	22895	55	27	55	20	24
24	ADAMS	10695 R	DROHAN JEFF	ADAMS	5	3	5	65	W	24	SE	SW	0	0	0	IRRIGATION	ALL UNNAMED AQUIFERS	N/A	29900	22895	55	27	55	20	24
25	ADAMS	10694 R	DROHAN JEFF	ADAMS	5	3	5	65	W	24	SE	SW	0	0	0	IRRIGATION	ALL UNNAMED AQUIFERS	N/A	29900	22895	55	27	55	20	24
26	ADAMS	973 WCB	DROHAN JEFF	ADAMS	5	3	5	65	W	24	SE	SW	0	0	0	IRRIGATION	ALL UNNAMED AQUIFERS	N/A	29900	22895	55	27	55	20	24
27	ADAMS	215 WCB	DROHAN JEFF	ADAMS	5	3	5	65	W	24	SE	SW	0	0	0	IRRIGATION	ALL UNNAMED AQUIFERS	N/A	20683	20649	67	0	0	900	24
28	ADAMS	290 WCB	DROHAN JEFF	ADAMS	5	3	5	65	W	25	SE	SW	0	0	0	IRRIGATION	ALL UNNAMED AQUIFERS	N/A	20683	20649	67	0	0	900	24
29	ADAMS	10698 R	DROHAN JEFF	ADAMS	5	3	5	65	W	25	SE	SW	0	0	0	IRRIGATION	ALL UNNAMED AQUIFERS	N/A	20683	20649	67	0	0	900	24
30	ADAMS	10698 R	DROHAN JEFF	ADAMS	5	3	5	65	W	25	SE	SW	0	0	0	IRRIGATION	ALL UNNAMED AQUIFERS	N/A	20683	20649	67	0	0	900	24
31	ADAMS	10698 R	DROHAN JEFF	ADAMS	5	3	5	65	W	25	SE	SW	0	0	0	IRRIGATION	ALL UNNAMED AQUIFERS	N/A	20683	20649	67	0	0	900	24
32	ADAMS	10689 R	DROHAN JEFF	ADAMS	5	3	5	65	W	24	SE	SW	0	0	0	IRRIGATION	ALL UNNAMED AQUIFERS	N/A	20683	20649	67	0	0	900	24
33	ADAMS	200768	DUNN CLIFFORD JR & GLORIA	ARAPAHOE	5	4	5	64	W	16	NE	NW	1018	N	1600	DOMESTIC STOCK	QUATERNARY ALLUVIUM	1.0	35460	39	0	0	0	0	0
34	ADAMS	556 WCB	EDNA BAE MARCH CO	ADAMS	5	3	5	65	W	14	NW	SE	2640	5	0	IRRIGATION	ALL UNNAMED AQUIFERS	N/A	20591	57	0	0	0	0	
35	ADAMS	10829 R	HAWTHORNE ROBERT R & GOLDIE R	ADAMS	5	3	5	64	W	31	NW	SE	2640	5	0	IRRIGATION	ALL UNNAMED AQUIFERS	N/A	20591	57	0	0	0	0	
36	ADAMS	20811 F	HEIN J M	ARAPAHOE	5	4	5	64	W	5	NE	SE	0	0	0	IRRIGATION	ALL UNNAMED AQUIFERS	N/A	20591	57	0	0	0	0	
37	ADAMS	10829 R	HEIN J M	ADAMS	5	3	5	64	W	5	NE	SE	0	0	0	IRRIGATION	ALL UNNAMED AQUIFERS	N/A	20591	57	0	0	0	0	
38	ADAMS	10829 R	HEIN J M	ADAMS	5	3	5	64	W	5	NE	SE	0	0	0	IRRIGATION	ALL UNNAMED AQUIFERS	N/A	20591	57	0	0	0	0	
39	ADAMS	10829 R	HEIN J M	ADAMS	5	3	5	64	W	5	NE	SE	0	0	0	IRRIGATION	ALL UNNAMED AQUIFERS	N/A	20591	57	0	0	0	0	
40	ADAMS	10829 R	HEIN J M	ADAMS	5	3	5	64	W	5	NE	SE	0	0	0	IRRIGATION	ALL UNNAMED AQUIFERS	N/A	20591	57	0	0	0	0	
41	ADAMS	10829 R	HEIN J M	ADAMS	5	3	5	64	W	5	NE	SE	0	0	0	IRRIGATION	ALL UNNAMED AQUIFERS	N/A	20591	57	0	0	0	0	
42	ADAMS	10829 R	HEIN J M	ADAMS	5	3	5	64	W	5	NE	SE	0	0	0	IRRIGATION	ALL UNNAMED AQUIFERS	N/A	20591	57	0	0	0	0	
43	ADAMS	10829 R	HEIN J M	ADAMS	5	3	5	64	W	5	NE	SE	0	0	0	IRRIGATION	ALL UNNAMED AQUIFERS	N/A	20591	57	0	0	0	0	
44	ADAMS	10829 R	HEIN J M	ADAMS	5	3	5	64	W	5	NE	SE	0	0	0	IRRIGATION	ALL UNNAMED AQUIFERS	N/A	20591	57	0	0	0	0	
45	ADAMS	10829 R	HEIN J M	ADAMS	5	3	5	64	W	5	NE	SE	0	0	0	IRRIGATION	ALL UNNAMED AQUIFERS	N/A	20591	57	0	0	0	0	
46	ADAMS	10829 R	HEIN J M	ADAMS	5	3	5	64	W	5	NE	SE	0	0	0	IRRIGATION	ALL UNNAMED AQUIFERS	N/A	20591	57	0	0	0	0	
47	ADAMS	10829 R	HEIN J M	ADAMS	5	3	5	64	W	5	NE	SE	0	0	0	IRRIGATION	ALL UNNAMED AQUIFERS	N/A	20591	57	0	0	0	0	
48	ADAMS	10829 R	HEIN J M	ADAMS	5	3	5	64	W	5	NE	SE	0	0	0	IRRIGATION	ALL UNNAMED AQUIFERS	N/A	20591	57	0	0	0	0	
49	ADAMS	10829 R	HEIN J M	ADAMS	5	3	5	64	W	5	NE	SE	0	0	0	IRRIGATION	ALL UNNAMED AQUIFERS	N/A	20591	57	0	0	0	0	
50	ADAMS	10829 R	HEIN J M	ADAMS	5	3	5	64	W	5	NE	SE	0	0	0	IRRIGATION	ALL UNNAMED AQUIFERS	N/A	20591	57	0	0	0	0	
51	ADAMS	10829 R	HEIN J M	ADAMS	5	3	5	64	W	5	NE	SE	0	0	0	IRRIGATION	ALL UNNAMED AQUIFERS	N/A	20591	57	0	0	0	0	
52	ADAMS	10829 R	HEIN J M	ADAMS	5	3	5	64	W	5	NE	SE	0	0	0	IRRIGATION	ALL UNNAMED AQUIFERS	N/A	20591	57	0	0	0	0	
53	ADAMS	10829 R	HEIN J M	ADAMS	5	3	5	64	W	5	NE	SE	0	0	0	IRRIGATION	ALL UNNAMED AQUIFERS	N/A	20591	57	0	0	0	0	
54	ADAMS	10829 R	HEIN J M	ADAMS	5	3	5	64	W	5	NE	SE	0	0	0	IRRIGATION	ALL UNNAMED AQUIFERS	N/A	20591	57	0	0	0	0	
55	ADAMS	10829 R	HEIN J M	ADAMS	5	3	5	64	W	5	NE	SE	0	0	0	IRRIGATION	ALL UNNAMED AQUIFERS	N/A	20591	57	0	0	0	0	
56	ADAMS	10829 R	HEIN J M	ADAMS	5	3	5	64	W	5	NE	SE	0	0	0	IRRIGATION	ALL UNNAMED AQUIFERS	N/A	20591	57	0	0	0	0	
57																									

Counter	Full Name	Permit No.	Case No.	County	pm	ts	hdir	mg	rdir	sec	q160	q40	coordinates	coordinates_d	coordsw	coordsw_d	UTM_x	UTM_y	Use	Aquifer	Annual Appr (AF)	Date Permit Issued	Date Well Const	Well Depth	tperf	bperf	Pump Rate	Static Wat
1	AMOCO PRODUCT CO	16810 F		ADAMS	S	3	S	65	W	32	SE	NE	2300	S	740	E	527337.60	4399664.90	COMMERCIAL	DENVER-ARAPAHOE	16.0	5/9/2002	6/13/2002	1060	0	0	20	430
2	AUROBA CITY OF	25649 FR	80CW0238	ADAMS	S	3	S	64	W	21	NW	SW	1340	N	1300	W	527698.50	4403328.80	INDUSTRIAL MUNICIPAL	ARAPAHOE	65.0	11/1/2002	7/15/2002	1208	0	0	177	282
3	AUROBA CITY OF	58385 F		ADAMS	S	3	S	65	W	32	SE	NE	1563	S	142	E	527520.80	4399440.40	INDUSTRIAL MUNICIPAL	LOWER ARAPAHOE	72.0	11/1/2002	7/15/2002	1386	0	0	106	569
4	HILL R	117802		ARAPAHOE	S	4	S	64	W	16	SE	SE	0	S	0	E	538712.70	4394252.10	DOMESTIC	ARAPAHOE	1.5	1/9/1981		0	0	0	0	0
5	KISSLER DANIEL M	118529		ARAPAHOE	S	4	S	64	W	10	NW	SW	2468	N	792	W	53971.80	4396512.70	DOMESTIC STOCK	ARAPAHOE	1.0	7/19/1984	9/14/1983	0	0	0	0	0
6	PRAIRIE VIEW PROPERTY OWNERS ASSOC	26666 F	83CW0164	ADAMS	S	3	S	64	W	30	SE	SE	56	S	1132	E	535343.80	4400559.80	ALL BENEFICIAL USES	ARAPAHOE	149.9	6/27/1985	9/14/1983	1200	625	730	250	228
7	PRAIRIE VIEW PROPERTY OWNERS ASSOC	26638 F	83CW0164	ADAMS	S	3	S	64	W	30	SE	SE	56	S	1132	E	535343.80	4400559.80	MUNICIPAL	ARAPAHOE	32.1	6/3/1985	6/27/1985	1200	625	730	250	228
8	YOUNGBERG C.D.	26487 F		ARAPAHOE	S	4	S	64	W	11	NW	SE	2130	N	1990	W	541114.40	4396636.60	IRRIGATION	ARAPAHOE	16.0	6/3/1985	6/28/1986	0	0	0	110	312

Table 4 - Lower Arapahoe Well Data

Table 5 - Laramie Fox Hills Well Data

Counter	Full Name	Permit No.	Case No.	County	pm	ts	tdlr	rng	rdlr	sec	q160	q40	coordsms	coordsms	coordsms_d	coordsw	coordsw_d	UTM_x	UTM_y	Use	Aquifer	Annual Appr (AF)	Date Permit Issued	Date Well Const	Well Depth	lperf	lperf	Pump Rate	Static Wat
1	AURORA CITY OF	58584 F		ADAMS	S	3	S	65	W	32	SE	NE	1513	1513	E	146	E	527519.70	4399425.40	ALL BENEFICIAL USES	LARAMIE-FOX HILLS	55.0	11/17/2002	7/26/2002	1988	0	0	180	745
2	FOXTRIDGE MOBILE HOME	15955 FR		ARAPAHOE	S	4	S	65	W	4	NW	NW	0	0	0	0	0	527766.10	4398763.90	MUNICIPAL	LARAMIE-FOX HILLS	100.0	3/21/1986	4/27/1986	2007	0	0	143	793
3	HARVEST GROUP LTD	15956 F		ARAPAHOE	S	4	S	65	W	4	NW	NE	225	225	W	2530	W	528337.10	4398896.90	MUNICIPAL	LARAMIE-FOX HILLS	200.0			1950	0	0	160	0
4	HARVEST GROUP LTD	15955 F		ARAPAHOE	S	4	S	65	W	4	NW	NW	225	225	W	140	W	527608.60	4398895.90	MUNICIPAL	LARAMIE-FOX HILLS	200.0			2102	0	0	160	0



---

Prosper Project  
Arapahoe County 1041 Application  
Section 12. Environmental Impact Analysis  
e. Wetland & Riparian Areas  
g. Terrestrial & Aquatic Plant Life

---

*prepared for:*

**Vogel & Associates**

475 W. 12<sup>th</sup> Ave, Suite E, Denver, CO 80204

*prepared by:*

**Western Ecological Resource, Inc.**

711 Walnut Street, Boulder, CO 80302

April 2013

# Table of Contents

<u>Section / Title</u>	<u>Page</u>
1.0 Introduction .....	1
2.0 Environmental Setting .....	1
3.0 Methods.....	1
4.0 Vegetation Communities .....	4
4.1 Fallow Wheat Fields .....	4
4.2 Winter Wheat Plantings .....	4
4.3 Disturbed Shortgrass Prairie .....	4
4.4 Sand Prairie .....	4
4.5 Moist Sand Prairie.....	9
4.6 Potential Herbaceous Wetlands .....	9
4.7 Sandy Riparian Habitat .....	10
4.8 Drainage Swales .....	10
4.9 Disturbed Weedy Habitats .....	10
4.10 Ornamental Trees .....	10
5.0 Ephemeral Streams .....	11
5.1 Box Elder Creek.....	11
5.2 Coyote Run Creek .....	11
6.0 Federal Threatened and Endangered Plants .....	11
6.1 Ute Ladies' Tresses Orchid .....	11
6.2 Western Prairie Fringed Orchid.....	11
7.0 Rare Plants .....	12
8.0 Proposed Project .....	12
9.0 Impacts to Vegetation Resources .....	12
9.1 Plant Communities .....	12
9.2 Federally Listed Plants and other Rare Species .....	12
9.3 Wetlands and Waters of the U.S. ....	12
10.0 Photos.....	15
11.0 References .....	24

## List of Figures

<u>Number / Title</u>	<u>Page</u>
Figure 1. Vicinity Map.....	2
Figure 2. Project Location Map.....	3
Figure 3. Vegetation Type Map.....	5
Figure 4. Proposed Development Plan.....	13

## List of Tables

<u>Number / Title</u>	<u>Page</u>
Table 1. Vegetation Types .....	6
Table 2. Vascular Plant Species List .....	7
Table 3. Estimated Vegetation Impacts.....	14

## List of Photos

<u>Number / Title</u>	<u>Page</u>
Photo 1. Fallow winter wheat field with scattered annual weeds. (3/26/12).....	16
Photo 2. Dryland winter wheat planting. (3/26/12). .....	16
Photo 3. Disturbed shortgrass prairie. (3/26/12). .....	17
Photo 4. Sand prairie adjacent to Box Elder Creek. (3/26/12). .....	17
Photo 5. Moist sand prairie with a mixture of native & introduced plants. (3/26/12). .....	18
Photo 6. Potential Wetland 1 (PW-1) is dominated by foxtail barley. (3/26/12).....	18
Photo 7. Potential Wetland 2 (PW-2) is a stand of narrowleaf cattails. (3/26/12). .....	19
Photo 8. Potential Wetland 3 (PW-3). (3/26/12). .....	19
Photo 9. Sandy riparian habitat along Box Elder Creek. (3/26/12).....	20
Photo 10. Sandy riparian habitat located along Coyote Run Creek. (3/26/12). .....	20
Photo 11. Area of Coyote Run Creek in the Drainage Swale vegetation type. (3/26/12). .....	21
Photo 12. Disturbed, weedy habitat containing a black-tailed prairie dog colony. (3/26/12). ...	21
Photo 13. A planting of Chinese elm trees surrounds the home on the northeast parcel. ....	22
Photo 14. Naturalized stand of the ornamental tree Chinese elm. (3/26/12). .....	22
Photo 15. Box Elder Creek. (3/26/12).....	23
Photo 16. The broad, sandy streambed of Box Elder Creek is up to 400 feet wide. (3/26/12). ...	23

## 1.0 Introduction

Prosper is a proposed 5,130-acre mixed-use development to be located near Watkins, Colorado (Figure 1). It is located just south of I-70 in Sections 1, 2, 11, 12, 13, 14, and 24 of Range 65 West and Township 4 South; and Sections 5, 6, 7, and 18 of Range 64 west and Township 4 South in unincorporated Arapahoe County (Figure 2). In accordance with the standards of Arapahoe County's 1041 development review process, an inventory of vegetation resources was prepared. This report describes the existing plant communities on the project site and their condition, documents the presence of potential wetlands and waters of the U.S. features, and assesses the suitability of the project site for supporting federally listed threatened and endangered plants and other rare plant species tracked by the Colorado Natural Heritage Program (CNHP). Specifically, this report addresses Environmental Impact Analysis Sections 12 e. Wetlands & Riparian Habitats and g. Terrestrial & Aquatic Plant Life of the Arapahoe County 1041 Application. Please note, all Figures and Tables are included with the text, and Photos are in Section 10.0.

## 2.0 Environmental Setting

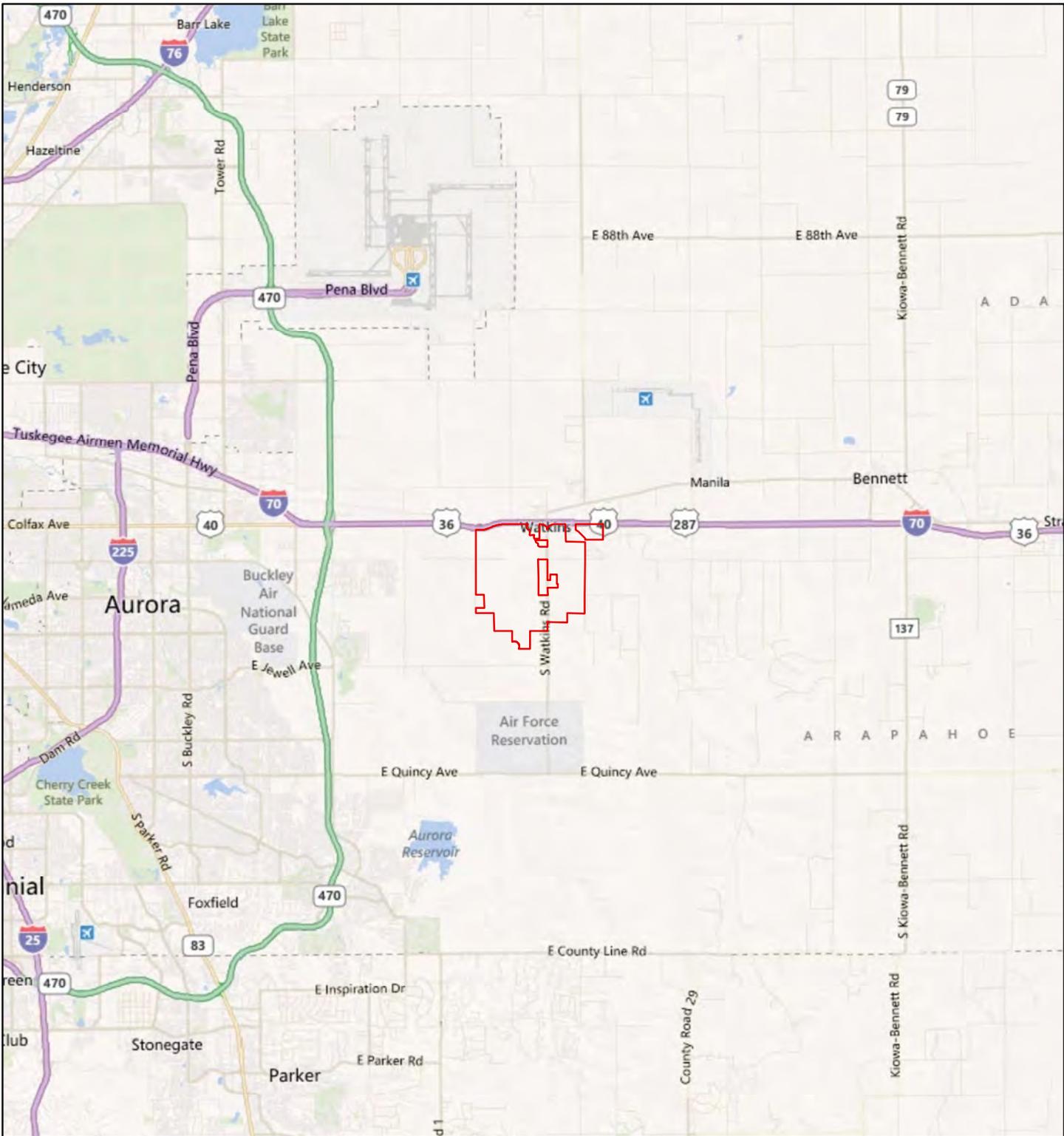
The ±5,130 acre Prosper project site is comprised of two parcels located immediately south of Interstate 70 near Watkins, Colorado. The main parcel encompasses ±4,948 acres and is bisected by Watkins Road, which extends south from the Watkins interchange on I-70. The eastern boundary of the main parcel is formed by Imboden Road and the western boundary is Hayesmount Road, and the parcel extends ½ mile south of Mississippi Road. Two outparcels measuring ±218 acres and ±32 acres are located within the main parcel. The second parcel (northeast parcel) is located just south of I-70 and east of Imboden Road and measures ±182 acres (Figure 2). Approximately 25 acres of the northeast parcel would be developed.

Elevations of the project site range from a high of approximately 5,780 feet in the southern tip of the main parcel to a low of approximately 5,540 feet where Box Elder Creek leaves the northern boundary of the northeast parcel. The I-70 ROW forms the northern boundary of the project site; and agricultural lands are located to the west, east, and south. Two residential developments, Watkins Farm and Thunder Ridge Ranches are located to the northeast between the main parcel and the northeast parcel. A church and small cemetery are located inside a jog in the north boundary of the main parcel. A 30-foot-wide Amoco gas pipeline easement crosses the northern part of the main parcel from southeast to northwest, and there are a few valve structures located along the easement.

Most of the project area is characterized by fallow and actively farmed dryland wheat fields dissected by numerous small, discontinuous and often poorly defined drainage swales that drain to the north below I-70. Two intermittent streams are present within the project site: Coyote Run Creek which flows through the main parcel, and Box Elder Creek, located in the northeast parcel. Most of the native vegetation has been replaced by agricultural land use, however remnant areas of native grassland and riparian communities are present. These areas of native vegetation are in a disturbed condition and contain a high percentage of non-native, weedy species.

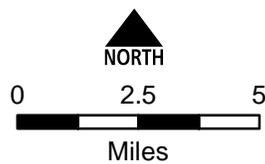
## 3.0 Methods

Heather Houston of Western Ecological Resource conducted field reconnaissance on the project site on March 26, 2012. Pedestrian surveys were used to inventory the plant communities and species present within the project area and identify potential wetlands and surface water features. These resources were mapped on an aerial photograph base and their boundaries were drawn in ArcGIS to produce the Vegetation Type Map and the Potential Wetland Map. The suitability of the project site for supporting federally listed threatened and endangered plant species was also evaluated, as well as the potential to support other rare plants tracked by the CNHP. Prior to



**Legend**

 Boundary April 2012

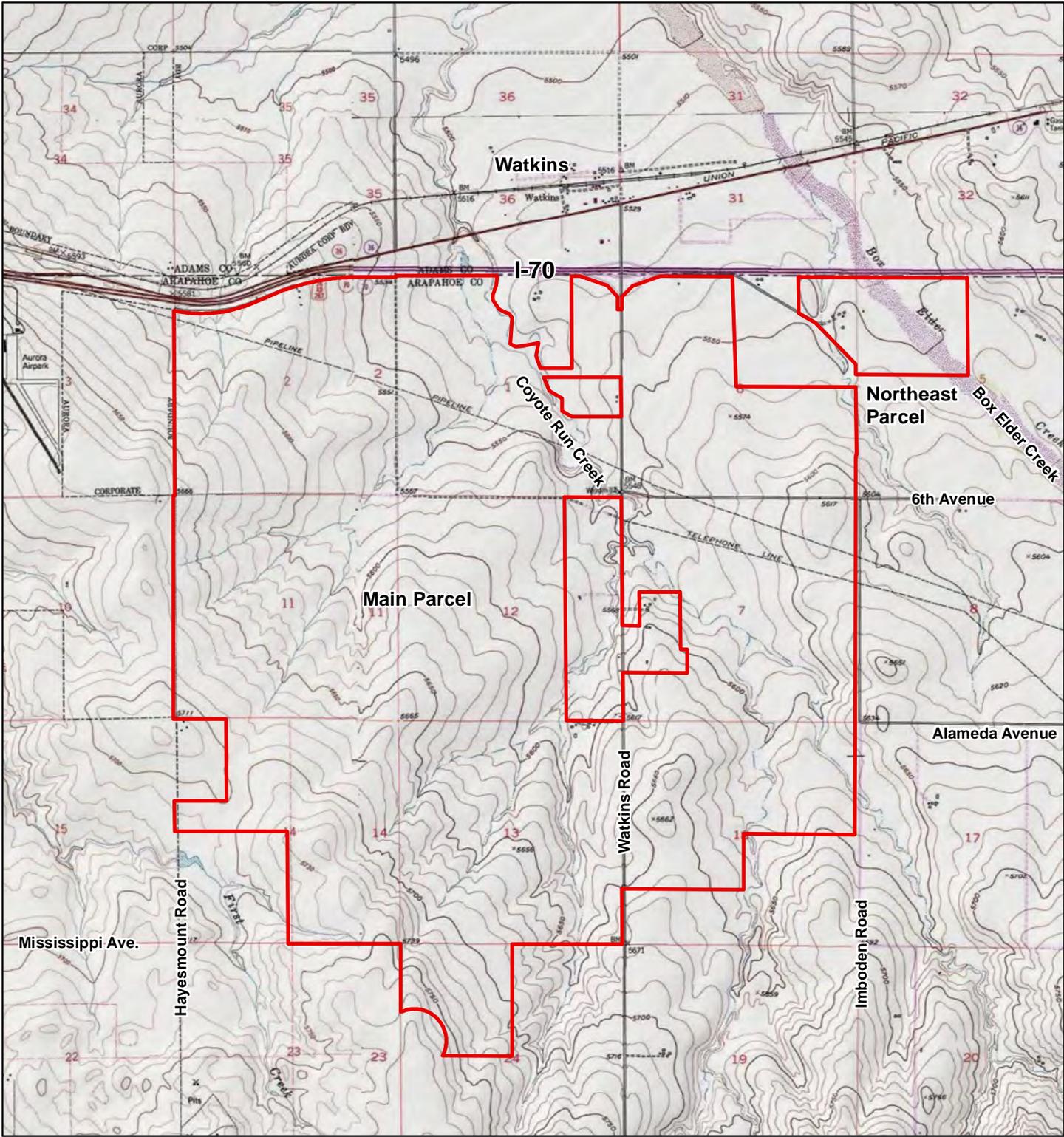


**Figure 1. Vicinity Map Prosper Project**

Date: April 2012

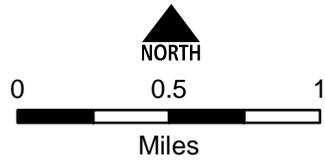


**Western Ecological Resource, Inc.**  
 711 Walnut Street, Boulder, CO 80302  
 (303) 449-9009



**Legend**

 Boundary April 2012



**Figure 2. Project Location Map  
Prosper Project**

Date: April 2012

 **Western Ecological Resource, Inc.**  
711 Walnut Street, Boulder, CO 80302  
(303) 449-9009

conducting field reconnaissance, the U.S. Fish and Wildlife Service's website was accessed to determine the federally listed threatened, endangered, and candidate plant species that could be affected by projects in Arapahoe County. In addition, data from the CNHP were accessed to determine if any rare species have been mapped on or near the project site.

#### 4.0 Vegetation Communities

Figure 3, the Vegetation Type Map, illustrates the distribution of agricultural and disturbed native plant communities on the 5,130 acre project site. Table 1 lists the vegetation types and their approximate area as mapped in ArcGIS. As shown by Table 1, fallow and active agricultural wheat fields cover nearly all (approximately 4,798 acres) of the project site. Table 2 lists the vascular plant species observed on the project site during field reconnaissance on March 26, 2012.

##### 4.1 Fallow Wheat Fields

Fallow winter wheat fields are the most abundant vegetation type, comprising approximately 2,676 acres of the project site (Photo 1). In these fallow areas, stubble from previous years' winter wheat (*Triticum aestivum*) harvest is interspersed with annual weeds such as purple mustard (*Chorispora tenella*), tumble mustard (*Sisymbrium altissimum*) and kochia (*Kochia scoparia*).

##### 4.2 Winter Wheat Plantings

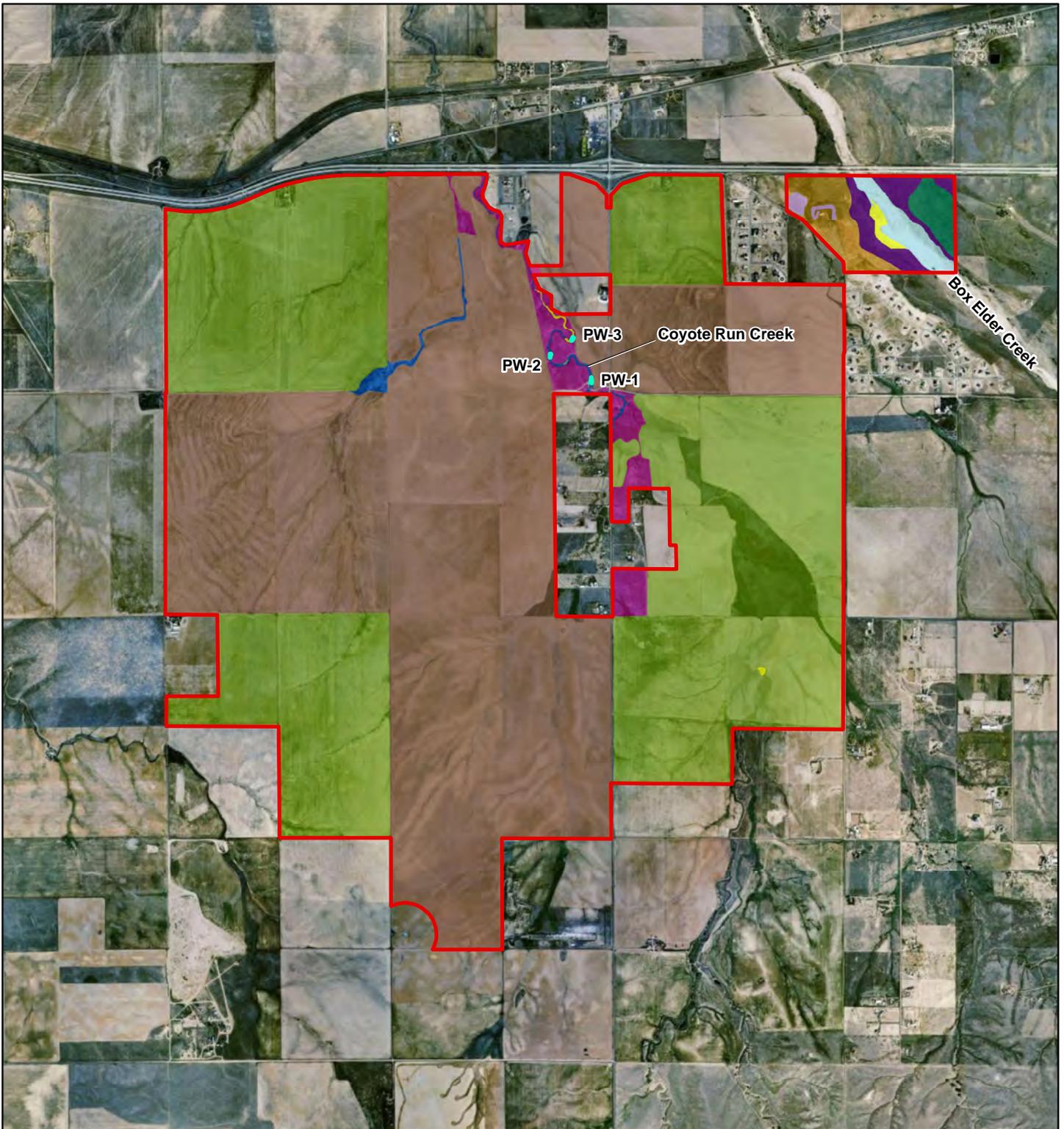
Approximately 2,140 acres of the project site is covered by dryland winter wheat plantings, the second most abundant vegetation type (Photo 2). The common annual weeds listed above are also present in the winter wheat fields. These un-irrigated plantings have been terraced in places.

##### 4.3 Disturbed Shortgrass Prairie

The disturbed shortgrass prairie community (Photo 3) contains elements of native vegetation including buffalograss (*Buchloe dactyloides*) and blue grama (*Chondrosium gracile*); winterfat (*Krascheninnikovia lanata*) and shadscale (*Atriplex confertifolia*) shrubs; western wheatgrass (*Pascopyrum smithii*), the perennial forb field sagewort (*Oligosporus campestris ssp. pacificus*) and prickly pear (*Opuntia polyacantha*) cactus; with the introduced agricultural species crested wheatgrass (*Agropyron cristatum*) and intermediate wheatgrass (*Thinopyrum intermedium*). In addition, noxious and troublesome weeds including cheatgrass (*Bromus tectorum*), musk thistle (*Carduus nutans ssp. macrolepis*) and kochia are common in this community. As illustrated by Figure 3, this community type forms a band that lines Coyote Run Creek where it flows between the active and fallow wheat fields. Approximately 108 acres of this vegetation type are present in the project area, and it is the third most abundant vegetation type.

##### 4.4 Sand Prairie

The sand prairie community is a disturbed habitat that contains remnants of native vegetation (Photo 4). This community encompasses approximately 47 acres of exposed sandy soils and low dunes located adjacent to the sandy streambed of Box Elder Creek in the northeastern parcel. It has been grazed by horses and is adjacent to a highly disturbed habitat occupied by prairie dogs. The dominant plants in this area include the native grasses prairie sandreed (*Calamovilfa longifolia*), sand bluestem (*Andropogon hallii*), purple three-awn (*Aristida purpurea*), switchgrass (*Panicum virgatum*), little bluestem (*Schizachryium scoparium*), blue grama, buffalograss, and prairie dropseed (*Sporobolous heterolepis*). In addition to these native grasses, the weedy annual grasses Japanese brome (*Bromus japonicus*) and cheatgrass occur in the sand prairie community.



**Legend**

- |                              |                           |
|------------------------------|---------------------------|
| Project Boundary             | Potential Wetlands        |
| Fallow Wheat Fields          | Sandy Riparian Habitat    |
| Winter Wheat Plantings       | Drainage Swales           |
| Disturbed Shortgrass Prairie | Box Elder Creek Streambed |
| Sand Prairie                 | Disturbed Weedy Habitats  |
| Moist Sand Prairie           | Ornamental Trees          |

**Figure 3. Vegetation Type & Potential Wetland Map Prosper Project**

NORTH  
  
 0      0.5      1  
 Miles

Date: April 2012

**Western Ecological Resource, Inc.**  
 711 Walnut Street, Boulder, CO 80302  
 (303) 449-9009

**TABLE 1**  
**Vegetation Types**  
**Prosper Project**

<u>Vegetation Type</u>	<u>Approximate Area (Acres)</u>
<b>Agricultural Lands</b>	
Fallow Wheat Fields	2,676
Winter Wheat Plantings	2,140
<b>Total</b>	<b>4,798</b>
<b>Disturbed Prairie Habitats</b>	
Disturbed Shortgrass Prairie	108
Sand Prairie	47
Moist Sand Prairie	29
<b>Total</b>	<b>184</b>
<b>Waterways and Drainages</b>	
Box Elder Creek Streambed	35
Drainage Swales incl. "Coyote Creek"	22
<b>Total</b>	<b>57</b>
<b>Wetlands &amp; Riparian Habitats</b>	
PW-1	<.1
PW-2	<.1
PW-3	<.1
Sandy Riparian Habitats	9
<b>Total</b>	<b>~9.3</b>
<b>Disturbed Weedy Habitats</b>	<b>57</b>
<b>Ornamental Trees</b>	<b>~7</b>

**TABLE 2**  
**Vascular Plant Species List**  
**Prosper Project**

<u>Scientific Name</u>	<u>Common Name</u>	<u>Family</u>	<u>Origin*</u>	<u>Wetland Status**</u>
<b>Trees</b>				
<i>Elaeagnus angustifolia</i>	Russian olive	Eleagnaceae	I+	FAC
<i>Populus deltoides</i>	Plains cottonwood	Salicaceae	N	FAC
<i>Salix amygdaloides</i>	Peachleaf willow	Salicaceae	N	FACW
<i>Ulmus pumila</i>	Chinese elm	Ulmaceae	I	NL
<b>Shrubs</b>				
<i>Atriplex confertifolia</i>	Shadscale	Chenopodiaceae	N	NL
<i>Chrysothamnus nauseosus</i>	Rubber rabbitbrush	Asteraceae	N	NL
<i>Krascheninnikovia lanata</i>	Winterfat	Chenopodiaceae	N	NL
<i>Prunus virginiana</i>	Choke cherry	Rosaceae	N	FACU
<i>var. melanocarpa</i>				
<i>Ribes aureum</i>	Yellow currant	Grossulariaceae	N	NO
<i>Rosa woodsii</i>	Woods' rose	Rosaceae	N	FACU
<i>Salix exigua</i>	Sandbar willow	Salicaceae	N	OBL
<b>Perennial Graminoids</b>				
<i>Agropyron cristatum</i>	Crested wheatgrass	Poaceae	I	NL
<i>Andropogon hallii</i>	Sand bluestem	Poaceae	N	NL
<i>Aristida purpurea</i>	Purple three-awn	Poaceae	N	NL
<i>Bromus inermis</i>	Smooth brome	Poaceae	I	NL
<i>Buchloe dactyloides</i>	Buffalograss	Poaceae	N	NL
<i>Calamovilfa longifolia</i>	Prairie sand reed	Poaceae	N	NL
<i>Carex praegracilis</i>	Clustered field sedge	Cyperaceae	N	FACW
<i>Chondrosium gracile</i>	Blue grama	Poaceae	N	NL
<i>Distichlis spicata</i>	Saltgrass	Poaceae	N	NI
<i>Hordeum jubatum</i>	Foxtail barley	Poaceae	N	FACW
<i>Juncus arcticus ssp. ater</i> ( <i>J. balticus</i> )	Baltic rush	Juncaceae	N	OBL
<i>Panicum virgatum</i>	Switchgrass	Poaceae	N	FAC
<i>Pascopyrum smithii</i>	Western wheatgrass	Poaceae	N	FACU
<i>Poa pratensis</i>	Kentucky bluegrass	Poaceae	I	FACU
<i>Schizachyrium scoparium</i>	Little bluestem	Poaceae	N	FACU
<i>Sporobolus heterolepis</i>	Prairie dropseed	Poaceae	N	FACU
<i>Thinopyrum intermedium</i>	Intermediate wheatgrass	Poaceae	I	NL
<i>Typha angustifolia</i>	Narrowleaf cattail	Typhaceae	N	OBL
<i>Typha latifolia</i>	Broadleaf cattail	Typhaceae	N	OBL
<b>Perennial Forbs</b>				
<i>Ambrosia psilostachya</i>	Naked spike ragweed	Asteraceae	N	FAC
<i>Asclepias speciosa</i>	Showy milkweed	Asclepiadaceae	N	FAC
<i>Cirsium arvense</i>	Canada thistle	Asteraceae	I+	FACU
<i>Cirsium undulatum</i>	Wavyleaf thistle	Asteraceae	N	FACU
<i>Erigeron pumilus</i>	Shaggy fleabane	Asteraceae	N	NL
<i>Gaillardia aristata</i>	Blanket flower	Asteraceae	N	NL
<i>Glycyrrhiza lepidota</i>	Wild licorice	Fabaceae	N	FACU

**TABLE 2**  
**Vascular Plant Species List**  
**Prosper Project**

<u>Scientific Name</u>	<u>Common Name</u>	<u>Family</u>	<u>Origin*</u>	<u>Wetland Status**</u>
<i>Grindelia squarrosa</i>	Gumweed	Asteraceae	N	FACU-
<i>Oligosporus campestris</i> <i>ssp. pacificus</i>	Field sagewort	Asteraceae	N	NL
<i>Opuntia polyacantha</i>	Prickly Pear	Cactaceae	N	NL
<i>Rumex crispus</i>	Curly dock	Polygonaceae	I	FACW
<i>Taraxacum officinale</i>	Dandelion	Asteraceae	I	FACU
<i>Toxicodendron rydbergii</i>	Poison ivy	Anacardiaceae	N	FAC
<i>Yucca glauca</i>	Yucca	Agavaceae	N	NL
<b>Annual/Biennial Graminoids</b>				
<i>Bromus japonicus</i>	Japanese brome	Poaceae	I	FACU
<i>Bromus tectorum</i>	Cheatgrass	Poaceae	I+	NL
<i>Panicum capillare</i>	Witch grass	Poaceae	I	FAC
<i>Polypogon monspeliensis</i>	Rabbit foot grass	Poaceae	I	OBL
<i>Triticum aestivum</i>	Wheat	Poaceae	I	NL
<b>Annual/Biennial Forbs</b>				
<i>Argemone polyanthemus</i>	Prickly poppy	Papaveraceae	N	
<i>Atriplex patula</i>	Spear saltbush	Chenopodiaceae	N	FACW
<i>Camelina microcarpa</i>	False flax	Brassicaceae	I	NL
<i>Carduus nutans ssp. macrolepis</i>	Musk thistle	Asteraceae	I+	NL
<i>Chorispora tenella</i>	Purple mustard	Brassicaceae	I+	NL
<i>Descurainia sophia</i>	Flixweed	Brassicaceae	I+	NI
<i>Dyssodia papposa</i>	Fetid marigold	Asteraceae	N	NL
<i>Erodium cicutarium</i>	Crane's bill	Geraniaceae	I+	NL
<i>Kochia scoparia</i>	Kochia	Chenopodiaceae	I	FACU
<i>Nuttallia nuda</i>	Bractless blazingstar	Loasaceae	N	
<i>Oenothera villosa</i>	Hairy evening primrose	Onagraceae	N	FAC
<i>Plantago patagonica</i>	Wooly plantain	Plantaginaceae	N	UPL
<i>Salsola australis</i> <i>(S. iberica)</i>	Russian thistle	Chenopodiaceae	I+	FACU
<i>Salvia aethiopsis</i>	Mediterranean sage	Lamiaceae	I+	NL
<i>Sisymbrium altissimum</i>	Tumble mustard	Brassicaceae	I	FACU
<i>Sonchus arvensis</i>	Field sow thistle	Asteraceae	I+	FAC
<i>Verbascum thapsus</i>	Great mullein	Scrophulariaceae	I+	NL
<i>Xanthium strumarium</i>	Cocklebur	Asteraceae	I	FAC

\* Origin: N = Native; I = Introduced; I+ = Colorado State-Listed Noxious Weed

\*\* Wetland Status: OBL = Obligate Wetland; FACW = Facultative Wetland; FAC = Facultative; FACU = Facultative Upland; UPL = Obligate Upland, NL/NO = Not Listed

Common forbs include the native prairie species bractless blazingstar (*Nuttallia nuda*), field sagewort, prickly poppy (*Argemone polyanthemos*), shaggy fleabane (*Erigeron pumilus*), and wooly plantain (*Plantago patagonica*), as well as weeds including crane's bill (*Erodium cicutarium*) and mullein (*Verbascum thapsus*).

#### 4.5 Moist Sand Prairie

The moist sand prairie habitat, which covers approximately 29 acres, is located in the eastern portion of the northeast parcel, east of the low dunes that line Box Elder Creek (Photo 5). In this area, the topography is close to the streambed elevation of Boxelder Creek, soil moisture is higher, and there is a more diverse mixture of native and introduced plants. This habitat has been grazed by horses and is adjacent to active prairie dog colonies, which is reflected in the disturbed plant community. This area is characterized by small pockets of hydrophytes including Baltic rush (*Juncus arcticus ssp. ater*), clustered field sedge (*Carex praegracilis*), curly dock (*Rumex crispus*), showy milkweed (*Asclepias speciosa*), and Russian olive trees (*Eleagnus angustifolia*) intermixed with native grasses such as western wheatgrass (*Pascopyrun smithii*), switchgrass, blue grama, and the introduced grasses smooth brome (*Bromus inermis*) and Kentucky bluegrass (*Poa pratensis*). Noxious weeds including Canada thistle (*Cirsium arvense*) and musk thistle are also common in this area. Although there are areas of hydrophytic vegetation, due to their patchy distribution and the prevalence of smooth brome and Kentucky bluegrass, this habitat is unlikely to be classified as a wetland.

#### 4.6 Potential Herbaceous Wetlands

Three potential herbaceous wetland areas were identified along Coyote Run Creek, an intermittent stream, in the north-central portion of the main parcel. These three potential wetlands have a combined area of approximately 0.26 acre and are labeled PW-1 through PW-3 on Figure 3. Potential Wetland 1 (PW-1) is the southern of the three potential wetland areas and is located in a disturbed portion of Coyote Run Creek northwest of 6<sup>th</sup> Avenue and Watkins Road, just north of a road crossing of the creek (Photo 6). The vegetation in this area of the creek channel is characterized by facultative wetland plants including foxtail barley (*Hordeum jubatum*), witchgrass (*Panicum capillare*) and curly dock, bordered by a zone of smooth brome, Canada thistle, and wild licorice (*Glycyrrhiza lepidota*). These are marginal wetland species which can grow in moist upland areas, and given the characteristics of the site, it is possible that this area is not wet enough to be classified as a wetland under the requirements of the U.S. Army Corps of Engineers' 1987 Wetland Delineation Manual and the Great Plains Regional Supplement.

Potential Wetland 2 (PW-2) is located approximately 1,500 feet downstream of PW-1 on Coyote Run Creek (Photo 7). This potential wetland includes a small stand of narrowleaf cattail (*Typha angustifolia*) and rabbitfoot grass (*Polypogon monspeliensis*) below a very large peachleaf willow (*Salix amygdaloides*) tree. This potential wetland appears to have experienced a significant reduction in ground and surface water inputs within the past few years. The cattail stand was once larger and the cattails that have persisted did not grow as vigorously during the 2011 growing season based on observed conditions. This is consistent with evidence observed along the stream channel between potential wetlands 1 and 2, where a large, once vigorous stand of sandbar willow now contains about 80% dead stems. Based on these observations, Potential Wetland 2 may lack a current wetland hydrology and therefore may not meet the U.S. Army Corps of Engineers' definition of a wetland. It is located just below a headcut in the channel where the channel bed is a few feet lower in elevation and is closer to the ground water table along the stream.

Potential Wetland 3 (PW-3) is located 1,150 feet downstream of PW-2 within the streambed of Coyote Run Creek (Photo 8). This potential wetland is located in a scour pool where a very small area of stagnant water was observed during field reconnaissance. The vegetation consists of a stand of broadleaf cattails (*Typha latifolia*) growing below a canopy of peachleaf willow trees.

This wetland is in a low area of the streambed that is currently intercepting the ground water table and is likely to meet the definition of a wetland.

#### 4.7 Sandy Riparian Habitat

The 9 acres of sandy riparian habitat within the project area are located on the northeast parcel along the broad, sandy streambed of Box Elder Creek, and along Coyote Run Creek on the main parcel. Along Box Elder Creek, the sandy riparian habitats are periodically inundated by the creek and receive fresh deposits of sand which partially bury the vegetation, creating a dynamic process of vegetation establishment. There are dense, even-aged stands of young plains cottonwood trees and sandbar willow in this community (Photo 9). The sparse herbaceous vegetation includes prairie sandreed, sand bluestem, field sagewort, little bluestem, and the annual forb cocklebur (*Xanthium strumarium*). Areas of riparian habitat on the Coyote Creek drainage are characterized by stands of sandbar willow, peachleaf willow and plains cottonwood (Photo 10).

#### 4.8 Drainage Swales

Many of the minor drainages illustrated on the aerial photograph basemap are poorly developed swales located within fallow or active plantings of winter wheat. Where the swales are more developed and contain a distinct plant community, they are dominated by areas of smooth brome growing with numerous weedy species such as kochia, spear saltbush (*Atriplex patula*), musk thistle, curly dock, cheat grass, and sow thistle (*Sonchus sp.*). Portions of the Coyote Creek drainage are included in this vegetation type (Photo 11), which also occurs along a drainage located west of Coyote Run Creek in the northwestern portion of the main parcel. Approximately 22 acres of the drainage swale vegetation type occur within the project site.

#### 4.9 Disturbed Weedy Habitats

Highly disturbed, weedy upland habitats comprise approximately 57 acres of the project site and are located within areas disturbed by prairie dogs and horses on the northeast parcel (Photo 12). These areas have low vegetation cover due to heavy grazing pressure and are characterized by a high proportion of weedy and introduced species including many noxious weeds. Some of the most abundant plants in this vegetation type include kochia; the noxious weeds Russian thistle (*Salsola iberica*), crane's bill, musk thistle, mullein (*Verbascum thapsus*), and tumble mustard; the native forbs fetid marigold (*Dyssodia papposa*) and shaggy fleabane (*Erigeron pumilus*); native grasses including purple three-awn and saltgrass (*Distichlis spicata*); as well as yucca (*Yucca glauca*) and heavily chewed rubber rabbitbrush (*Chrysothamnus nauseosus*) shrubs. A few areas of Mediterranean sage (*Salvia aetheiopsis*) are located within this vegetation type; this List A noxious weed is of particular concern to the State of Colorado and is required to be eradicated wherever it is found.

#### 4.10 Ornamental Trees

Approximately seven acres of the project site are vegetated by stands of planted and naturalized ornamental trees on the northeast parcel. Specifically, there is a 2.5 acre planted windbreak surrounding a house on the east, north, and west sides. Most of the windbreak is comprised of large, mature Chinese elm trees (*Ulmus pumila*), however there is one row of junipers (*Juniperus sp.*) located on the west side. The understory of the Chinese elm trees is comprised of the noxious weeds cheatgrass and musk thistle (Photo 13). The other area mapped as ornamental trees on Figure 3 is located in the western portion of the northeast parcel, where there is a naturalized stand of mature and sapling Chinese elm trees with an understory of the native forb shaggy fleabane and the perennial grass purple three-awn growing in sandy soil (Photo 14).

## 5.0 Ephemeral Streams

### 5.1 Box Elder Creek

The broad, sandy stream channel of Box Elder Creek reaches up to 400 feet wide within the northeast parcel (Photos 15 & 16). The streambed itself and the adjacent sandy riparian habitat dominated by plains cottonwood, peachleaf willow, and sandbar willow would likely be considered jurisdictional by the U.S. Army Corps of Engineers. Box Elder Creek flows through a series of reservoirs and ultimately flows into a ditch or into the South Platte River near Kuner, east of Greeley Colorado. The streambed and the adjacent sandy riparian habitats total approximately 42 acres.

### 5.2 Coyote Run Creek

Coyote Run Creek flows into Box Elder Creek approximately 4.7 miles north of the project boundary. This ephemeral stream is characterized by a discontinuous channel with areas of wetlands (PW-1 through PW-3 described above in Section 4.6) (Photos 6-8) and sandy riparian habitat dominated by sandbar willow, peachleaf willow, and plains cottonwood trees in places (described above in Section 4.7) (Photo 10). In other areas, the stream is more like a vegetated swale, and is dominated by smooth brome, curly dock, kochia, and noxious weeds such as Canada thistle, musk thistle, purple mustard, and tumble mustard. These areas are mapped as the Drainage swale vegetation type on Figure 3 (described above in Section 4.8) (Photo 11). Due to the discontinuous nature of the channel and the prevalence of upland, weedy plants, Coyote Run Creek and the potential wetlands within it are unlikely to be considered jurisdictional by the U.S. Army Corps of Engineers. However, the jurisdictional status of all potential wetlands must be determined by the U.S. Army Corps of Engineers.

## 6.0 Federal Threatened and Endangered Plants

### 6.1 Ute Ladies' Tresses Orchid

The U.S. Fish and Wildlife Service has identified one federally listed threatened plant species with potential habitat in Arapahoe County, the Ute ladies' tresses orchid (*Spiranthes diluvialis*). This federally threatened perennial, terrestrial orchid is endemic to moist soils in mesic or wet meadows near springs, lakes, or perennial streams (USFWS, 1995; Jennings, 1990). In Colorado, the elevational range of known orchid populations is between 4,500 and 6,800 feet (Spackman et al., 1997). The orchid prefers sites with permanent sub-irrigation such as floodplains where the water table is near the surface throughout the growing season and into the late summer or early autumn (USFWS, 1995; Jennings, 1990).

The project site does not contain suitable habitat for the Ute ladies' tresses orchid. The Box Elder Creek streambed and adjacent riparian areas do not have the sub-irrigation necessary to support this species. Likewise, there is no suitable habitat along Coyote Run Creek.

### 6.2 Western Prairie Fringed Orchid

The western prairie fringed orchid (*Platanthera praeclara*) is a threatened species that occurs in Nebraska, however it may be impacted by water depletions to the South Platte River Basin within Arapahoe County, Colorado. If the project would result in water depletions, the U.S. Fish and Wildlife Service and/or U.S. Army Corps of Engineers may require participation in the South Platte Water Related Activities Program (SPWRAP) to mitigate for these impacts. This non-profit organization collects membership funds to conduct activities related to habitat preservation and regulation of the South Platte River flows, and membership can be used for Endangered Species Act (ESA) compliance.

## 7.0 Rare Plants

The CNHP is an organization that identifies, maps, and catalogs rare and imperiled species and ecological communities and proposes conservation areas that should be protected in order to preserve these resources. CNHP tracks three plant species within Arapahoe County: American currant (*Ribes americanum*), broadfruit burreed (*Sparganium eurycarpum*) and dwarf milkweed (*Asclepias uncialis*). None of these plant species tracked by CNHP have been mapped on or near the project site and there is no suitable habitat for any of these species in the disturbed, remnant native habitats of the project site.

## 8.0 Proposed Project

The Prosper Development Plan, prepared by Vogel and Associates, is illustrated by Figure 4. The proposed land uses are summarized in tabular form on the lower right corner of the figure. The project would include 9,000 residential units on 2,790 acres; commercial/retail, mixed use, medical/educational, industrial/office space; civic space; a 29 acre community park; a wastewater treatment plant; a potential 81-surface-acre reservoir; detention and water quality ponds; and 1,534 acres of open space and rights-of-way. The open space will provide a buffer around the perimeter and a significant portion of the open space will be used for recreation and agricultural purposes.

## 9.0 Impacts to Vegetation Resources

### 9.1 Plant Communities

The Prosper development illustrated by Figure 4 would impact approximately 4,872 acres of vegetation within the 5,130 acre project site (Table 3). These figures assume that there would be no impacts to Coyote Run Creek, including the drainage swale, sandy riparian, and potential wetland habitats located within the proposed open space corridor. Likewise, it assumes that only 25 acres of disturbed weedy habitat on the northeast parcel would be impacted. As a whole, less than 45 acres of the impact would be to disturbed native plant communities; more than 4,827 acres of vegetation impact would be to agricultural plant communities or disturbed, weedy habitats.

### 9.2 Federally Listed Plants and other Rare Species

The project site does not contain suitable habitat for the Ute ladies' tresses orchid and therefore the proposed development would not impact this federally listed threatened species. If the project would result in water depletions to the South Platte River, there could be a potential impact to the habitat of the western prairie fringed orchid in Nebraska. However, potential impacts from water depletions to the South Platte River can be mitigated through participation in the South Platte Water Related Activities Program (SPWRAP), which uses funds to preserve the habitat of the orchid in Nebraska.

### 9.3 Wetlands and Waters of the U.S.

Three small potential herbaceous wetlands totaling less than 0.3 acre were identified within the Coyote Run Creek stream channel during field reconnaissance. The Coyote Run Stream channel, including these potential wetlands, is located within the open space corridor identified on Figure 4, the Sketch Plan. Therefore, it is assumed that there would be no impacts to these potential wetlands or the intermittent stream. Likewise, there is no development planned within the Box Elder Creek streambed or in the sandy wetland/riparian areas along its banks. Under this scenario there would be no impacts to wetlands or waters of the U.S.

# PROSPER

PARCELS OF LAND SITUATED IN SECTIONS 5, 6, 7 & 18, T.4S., R.64W., AND SECTIONS 1, 2, 11, 12, 13, 14 & 24, T.4S., R.65W., OF THE 6TH P.M. COUNTY OF ARAPAHOE, STATE OF COLORADO ARAPAHOE COUNTY 1041 PERMIT

## LEGEND

### RIGHTS-OF-WAY

- Major Arterial
- Minor Arterial
- Boulevard
- Connector Road

### SCHOOLS & PARKS

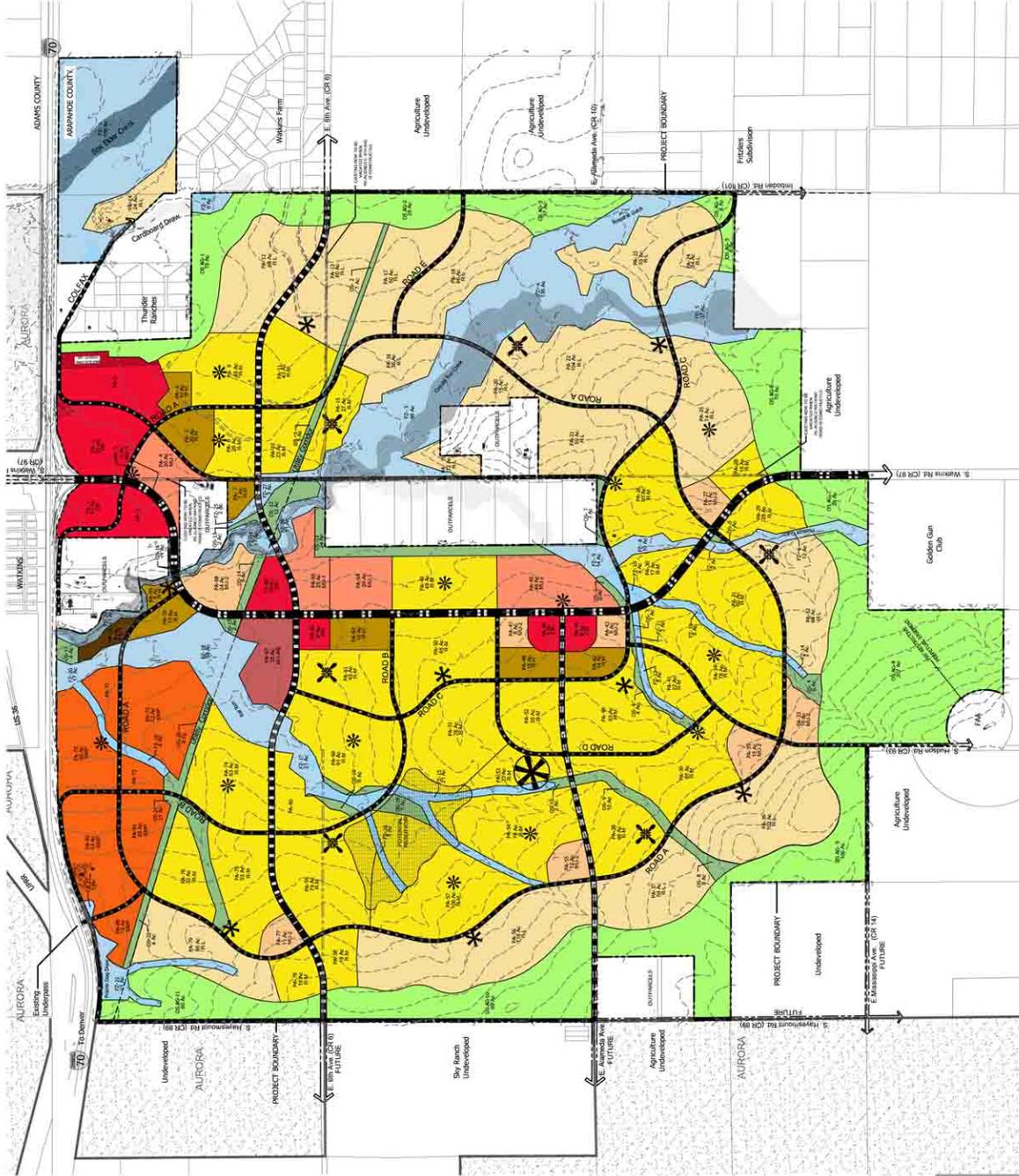
- School / Park
- Community Park
- Neighborhood Park
- Pocket Park

### WATERWAYS

- FEMA 100 Year Floodplain
- FEMA Floodway
- Potential Reservoir

### Land Use

Abbr.	Land Use
CR	Commercial/Retail
MU-1	Mixed Use Commercial
MU-2	Mixed Use Residential
MU-HE	Mixed Use (Medical / Educational / Campus)
EMP	Employment (Light Industrial/Flex/Office)
Residential	Residential
R-L	Low Density Residential
R-M	Medium Density Residential
R-H	High Density Residential
WWT	Waste Water Treatment
FZ	F-Zone (Floodplain)
OS	Open Space
OS-AG	Open Space - Agricultural



Scale: 1" = 1000'

Date: JUNE 4, 2012  
 Revision: OCTOBER 19, 2012  
 Date: FEBRUARY 7, 2014  
 Date: JULY 9, 2013  
 Date: JUNE 20, 2014

**VOGEL & ASSOCIATES**  
 Denver, Colorado 80202-5566  
 (303) 993-4388

FIGURE 4: LAND DEVELOPMENT PLAN

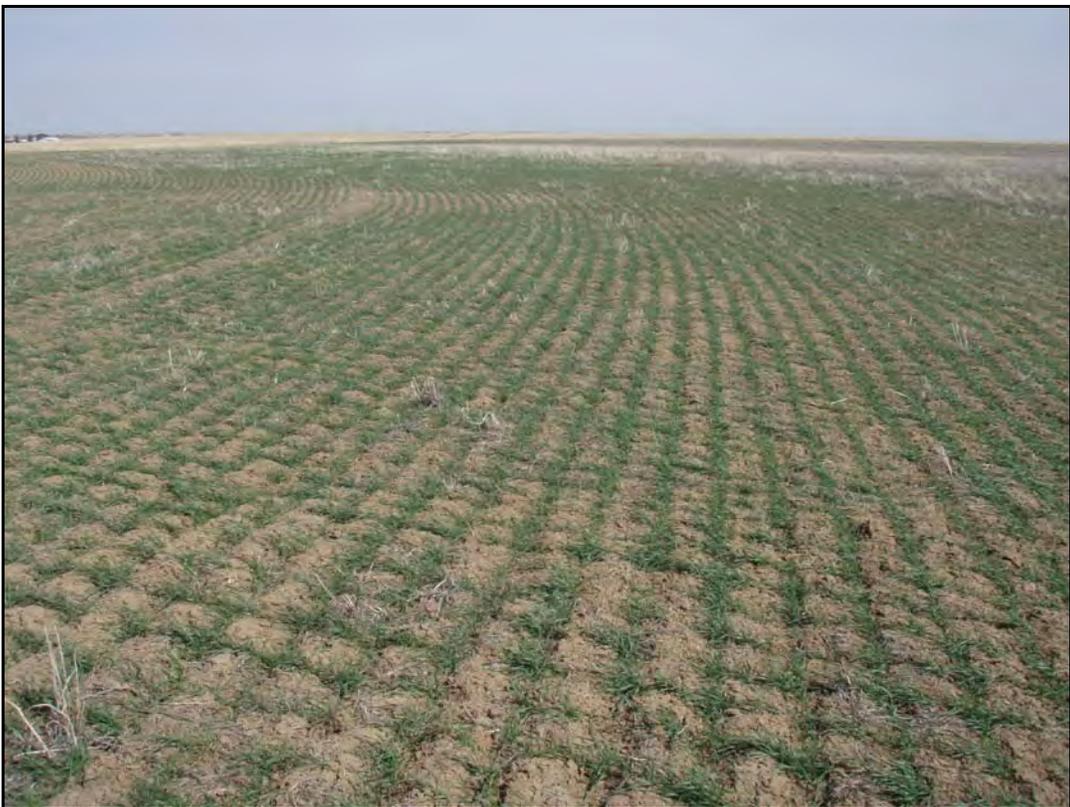
**TABLE 3**  
**Estimated Vegetation Impacts**  
**Prosper Project**

<u>Vegetation Type</u>	<u>Existing Total Area (Acres)</u>	<u>Estimated Impact Area (Acres)</u>
<b>Agricultural Lands</b>		
Fallow Wheat Fields	2,676	2,670
Winter Wheat Plantings	2,140	2,128
<b>Total</b>	<b>4,816</b>	<b>4,802</b>
<b>Disturbed Prairie Habitats</b>		
Disturbed Shortgrass Prairie	108	44
Sand Prairie	47	0
Moist Sand Prairie	29	0
<b>Total</b>	<b>184</b>	<b>44</b>
<b>Waterways and Drainages</b>		
Box Elder Creek Streambed	35	0
Drainage Swales incl. "Coyote Creek"	22	0
<b>Total</b>	<b>57</b>	<b>0</b>
<b>Wetlands &amp; Riparian Habitats</b>		
PW-1	<.1	0
PW-2	<.1	0
PW-3	<.1	0
Sandy Riparian Habitats	9	.6
<b>Total</b>	<b>~9.3</b>	<b>.6</b>
Disturbed Weedy Habitats	57	25
Ornamental Trees	~7	0
<b>TOTAL:</b>	<b>~ 5,130.3</b>	<b>~ 4,868</b>

10.0 Photos



**Photo 1.** Fallow winter wheat field with scattered annual weeds. (3/26/12).



**Photo 2.** Dryland winter wheat planting. (3/26/12).



**Photo 3.** Disturbed shortgrass prairie. (3/26/12).



**Photo 4.** Sand prairie adjacent to Box Elder Creek. (3/26/12).



**Photo 5.** Moist sand prairie with a mixture of native and introduced plants, as well as wetland and upland species. (3/26/12).



**Photo 6.** Potential Wetland 1 (PW-1) is dominated by foxtail barley. (3/26/12).



**Photo 7.** Potential Wetland 2 (PW-2) is a stand of narrowleaf cattails and peachleaf willow within the stream channel of Coyote Run Creek. (3/26/12).



**Photo 8.** Potential Wetland 3 (PW-3). (3/26/12).



**Photo 9.** Sandy riparian habitat along Box Elder Creek is dominated by sandbar willow, peachleaf willow, and plains cottonwood. (3/26/12).



**Photo 10.** Sandy riparian habitat located along Coyote Run Creek. (3/26/12).



**Photo 11.** Areas of Coyote Run Creek vegetated by smooth brome, Canada thistle, & other weedy species are mapped in the Drainage Swale vegetation type. (3/26/12).



**Photo 12.** Disturbed, weedy habitat containing a black-tailed prairie dog colony. (3/26/12).



**Photo 13.** A planting of Chinese elm trees surrounds the home on the northeast parcel and is mapped as the ornamental trees vegetation type. (3/26/12).



**Photo 14.** Naturalized stand of the ornamental tree Chinese elm. (3/26/12).



**Photo 15.** Box Elder Creek. (3/26/12).



**Photo 16.** The broad, sandy streambed of Box Elder Creek is up to 400 feet wide. (3/26/12).

## 11.0 References

- Colorado Natural Heritage Program (CNHP). 2003. Field Guide to the Wetland and Riparian Plant Associations of Colorado. Colorado Natural Heritage Program, Fort Collins, Colorado.
- Colorado Natural Heritage Program (CNHP). 1999. Conservation Status Handbook. Colorado's Animals, Plants, and Plant Communities of Special Concern. Volume 3 Number 2. Colorado Natural Heritage Program, Fort Collins, Colorado.
- Colorado Natural Heritage Program (CNHP). 20011. Statewide listing of tracked elements by county, Updated 8/16/2011. <http://www.cnhp.colostate.edu/list.html>
- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. La Roe. 1979. Classification of wetlands and deepwater habitats of the United States. U.S. Fish and Wildlife Service Pub. FWS/OBS-79/31, Washington, D.C., 103 p.
- Harrington, H.D. 1964. Manual of the Plants of Colorado. The Swallow Press, Inc. Chicago, Illinois 60605.
- Jennings, William F. 1990. Final Report. Species studied: *Spiranthes diluvialis*, *Sisyrinchium pallidum*. Report for the Nature Conservancy under the Colorado Natural History Small Grants Program. The Nature Conservancy, Boulder, Colorado. 29 pp.
- Johnston, B.C. 1987. Plant Associations of Region Two: Potential plant communities of Wyoming, South Dakota, Nebraska, Colorado, and Kansas. USDA Forest Service, Rocky Mountain Region, Lakewood, Colorado. Publication Number R2-ECOL-87-2.
- Kartesz, J.T. 1994a. A Synonymized Checklist of the Vascular Flora of the United States, Canada, and Greenland. Vol. 1 - Checklist. Second edition. Timber Press, Inc. Portland, Oregon. 622 p.
- Kartesz, J.T. 1994b. A Synonymized Checklist of the Vascular Flora of the United States, Canada, and Greenland. Vol. 2 - Thesaurus. Second edition. Timber Press, Inc. Portland, Oregon. 816 p.
- National List of Plant Species that Occur in Wetlands. 1988 List. Central Plains (R5) Region. <http://www.nwi.fws.gov/bha/>
- NatureServe Explorer: An Online Encyclopedia of Life. <http://www.natureserve.org/explorer/>
- Spackman, S., B. Jennings, J. Coles, C. Dawson, M. Mitton, A. Kratz, and C. Spurrier. 1997. Colorado Rare Plant Field Guide. Prepared for the Bureau of Land Management, The U.S. Forest Service, and the U.S. Fish and Wildlife Service by the Colorado Natural Heritage Program.
- U.S. Army Corps of Engineers. 1987. Wetlands Delineation Manual, Technical Report Y-87-1. U.S. Army Corps of Engineers Waterways Experiment Station, Vicksburg, MS.
- USDA, NRCS. 2012. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.
- University of Colorado Herbarium (COLO). Specimen Database of Colorado Vascular Plants. <http://cumuseum.colorado.edu/Research/Botany/Databases/search.php>

- U.S. Fish and Wildlife Service. 1995. Ute Ladies'-tresses (*Spiranthes diluvialis*) recovery plan. U.S. Fish and Wildlife Service, Denver, Colorado. 46 pp.
- Weber, W. A. and R. C. Whitmann. 2001. Colorado Flora: Eastern Slope, Third edition. University Press of Colorado. Boulder, Colorado.
- Weber, W.A. & R.C. Wittmann, 1992. Catalog of the Colorado Flora: a Biodiversity Baseline. University Press of Colorado. Niwot, Colorado. Including most recent addenda available from CU Herbarium (COLO), Boulder, Colorado.

---

**Prosper Project  
Arapahoe County 1041 Application  
Section 12. Environmental Impact Analysis  
f. Terrestrial & Aquatic Animals & Habitats**

---

*prepared for:*

**Vogel & Associates**  
475 W. 12<sup>th</sup> Ave, Suite E, Denver, CO 80204

*prepared by:*

**Wildlife Specialties, LLC**  
PO Box 1231, Lyons, CO 80540

April 2013

# Table of Contents

<u>Section / Title</u>	<u>Page</u>
1.0 Introduction .....	1
2.0 Environmental Setting .....	1
3.0 Methods .....	5
4.0 Wildlife Habitats & Species Presence .....	5
4.1 Habitats .....	5
4.2 General Wildlife Use.....	5
4.3 Federal Threatened, Endangered, and Candidate Wildlife Species.....	7
4.4 State Species of Concern .....	8
4.5 Migratory Bird Treaty Act .....	12
4.6 Economically Important Wildlife Species.....	12
5.0 Proposed Development .....	13
6.0 Impacts & Mitigation.....	13
6.1 General Wildlife Use.....	13
6.2 Federally Listed Wildlife.....	13
6.3 State Species of Concern .....	15
6.4 Migratory Birds .....	15
6.5 Economically Important Wildlife Species.....	15
7.0 Conclusion .....	16
8.0 Literature Cited.....	18

## List of Figures

<u>Number / Title</u>	<u>Page</u>
Figure 1. Vicinity Map. ....	2
Figure 2. Project Location Map. ....	3
Figure 3. Vegetation Type and Potential Wetland Map. ....	4
Figure 4. Wildlife Features. ....	6
Figure 5. Proposed Development Plan. ....	14

## List of Tables

<u>Number / Title</u>	<u>Page</u>
Table 1. Federally Listed Species of Concern for the Project Area .....	8
Table 2. Colorado Species of Concern Potentially Occurring in the Project Area .....	10

## List of Photos

<u>Number / Title</u>	<u>Page</u>
Photo 1: Great Horned Owl nest.....	5
Photo 2: Coyote den. ....	7
Photo 3: Red-tailed Hawk nest. ....	7

## 1.0 Introduction

Prosper is a proposed 5,130-acre mixed-use development to be located near Watkins in unincorporated Arapahoe County, Colorado (Figure 1). It is located just south of I-70 in Sections 1, 2, 11, 12, 13, 14, and 24 of Range 65 West and Township 4 South; and Sections 5, 6, 7, and 18 of Range 64 west and Township 4 South in Arapahoe County (Figure 2). The project area is located on the Coal Creek and Watkins, Colorado U.S. Geological Survey topographic maps.

In accordance with the standards of Arapahoe County's 1041 development review process, an inventory of wildlife resources was prepared. This report describes the wildlife habitats present and documents general wildlife use; discusses the potential for the project site to support federally listed threatened, endangered, and candidate wildlife species, state of Colorado species of concern, migratory birds, and economically important wildlife; evaluates potential impacts of the proposed development on these groups of species; and discusses potential mitigation measures. This report fulfills Environmental Impact Analysis Section 12 f. Terrestrial & Aquatic Animals & Habitats of the Arapahoe County 1041 permit submittal requirements.

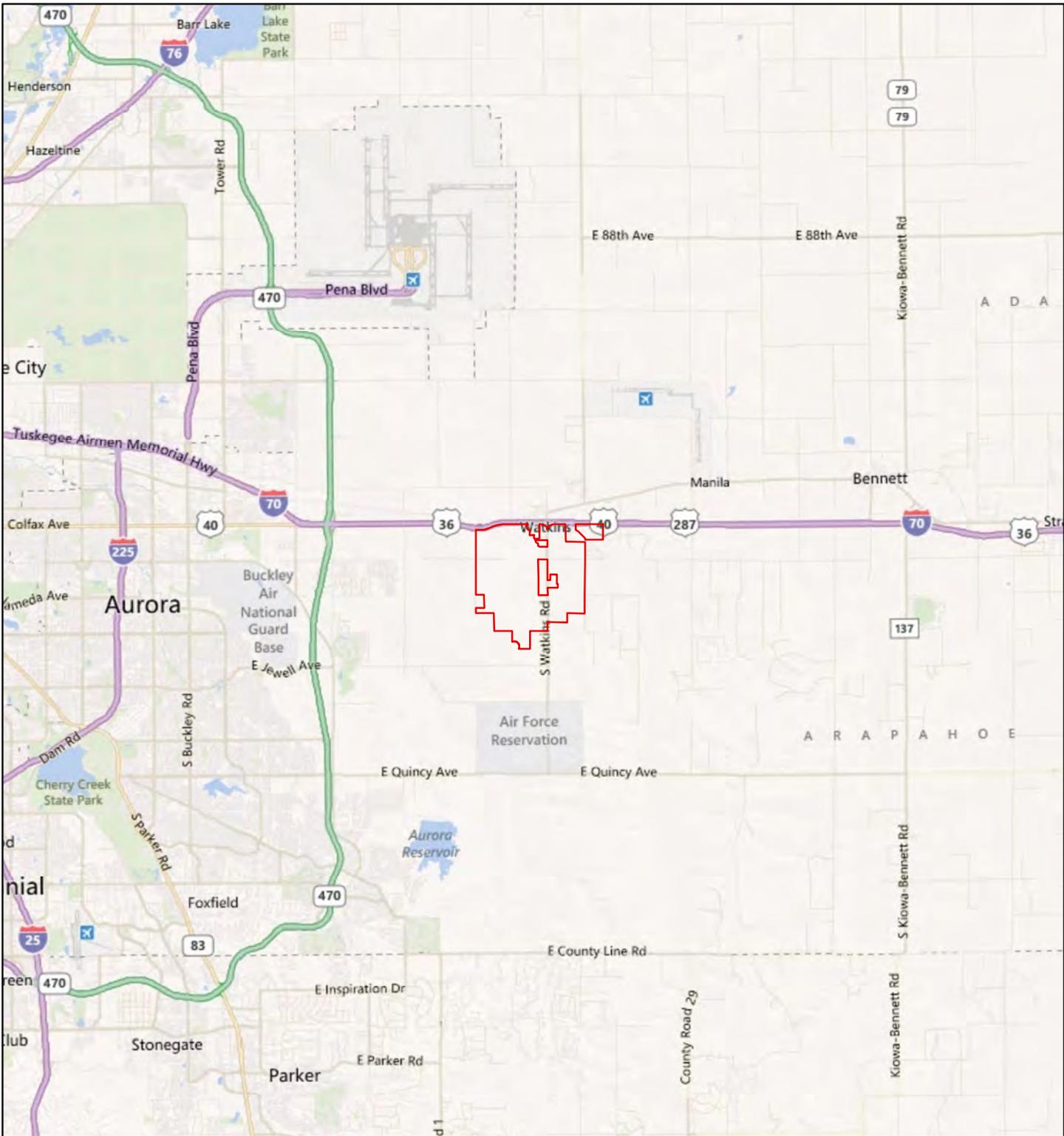
## 2.0 Environmental Setting

The ±5,130 acre Prosper project site is comprised of two parcels located immediately south of Interstate 70 near Watkins, Colorado. The main parcel encompasses ±4,948 acres and is bisected by Watkins Road, which extends south from the Watkins interchange on I-70. The eastern boundary of the main parcel is formed by Imboden Road and the western boundary is Hayesmount Road, and the parcel extends ½ mile south of Mississippi Road. Two outparcels measuring ±218 acres and ±32 acres are located within the main parcel. The second parcel (northeast parcel) is located just south of I-70 and east of Imboden Road and measures ±182 acres. Approximately 25 acres of the northeast parcel would be developed.

The project area has a gentle, rolling topography that slopes and drains to the north. Elevations of the project site range from a high of approximately 5,780 feet in the southern tip of the main parcel to a low of approximately 5,540 feet where Box Elder Creek leaves the northern boundary of the northeast parcel. The I-70 ROW forms the northern boundary of the project site; and agricultural lands are located to the west, east, and south. Two residential developments, Watkins Farm and Thunder Ridge Ranches, are located to the northeast between the main parcel and the northeast parcel. A church and small cemetery are located inside a jog in the north boundary of the main parcel. A 30-foot-wide Amoco gas pipeline easement crosses the northern part of the main parcel from southeast to northwest, and there are a few valve structures located along the easement.

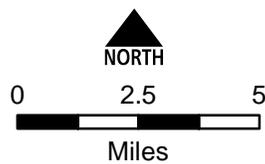
Most of the project area is characterized by fallow and actively farmed dryland wheat fields dissected by numerous small, discontinuous and often poorly defined drainage swales that drain to the north below I-70. The native vegetation has been replaced by agricultural land uses, however remnant areas of native grassland and riparian communities are present. These areas of native vegetation are in a disturbed condition and contain a high percentage of non-native, weedy species. Vegetation types of the project area are illustrated by Figure 3.

Two intermittent streams are present within the project site: Coyote Run Creek, which flows through the main parcel, and Box Elder Creek, located in the northeast parcel. Box Elder Creek is the dominant drainage within and near the project area. Most of the year, Box Elder Creek is characterized by a broad, sandy channel bottom that reaches up to 400 feet wide. This stream only contains flowing water following major storm events. Coyote Run Creek is a small intermittent stream that flows through a narrow band of disturbed, weedy grassland habitat between fallow and actively farmed wheat fields. Coyote Run Creek has a somewhat discontinuous channel with areas of introduced grasses and weeds, a few sandy riparian areas with stands of willows, and three small potential wetlands.



**Legend**

 Boundary April 2012

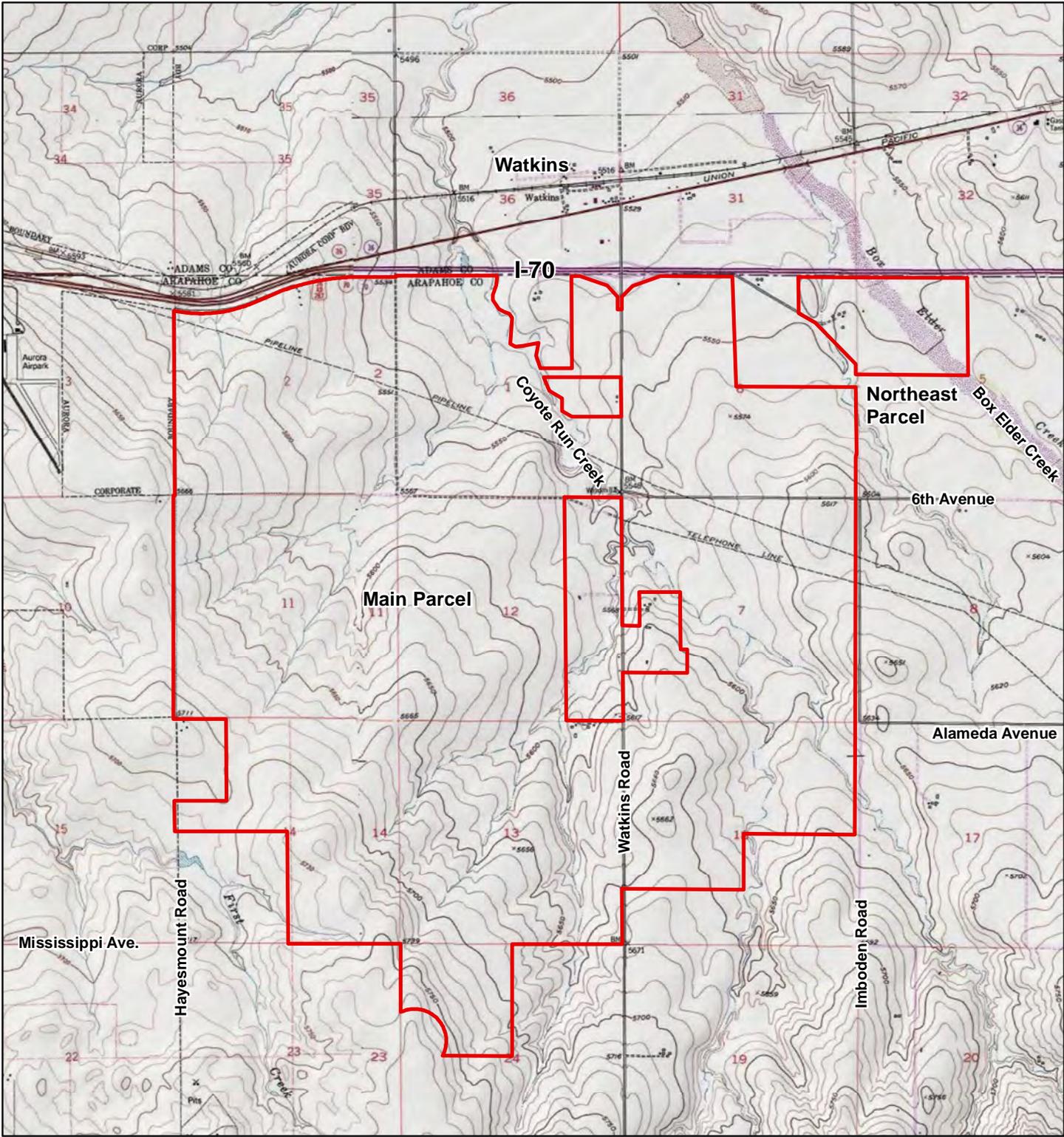


**Figure 1. Vicinity Map Prosper Project**

Date: April 2012

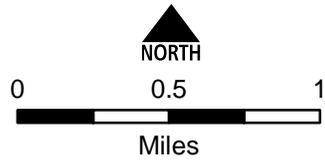


**Western Ecological Resource, Inc.**  
 711 Walnut Street, Boulder, CO 80302  
 (303) 449-9009



**Legend**

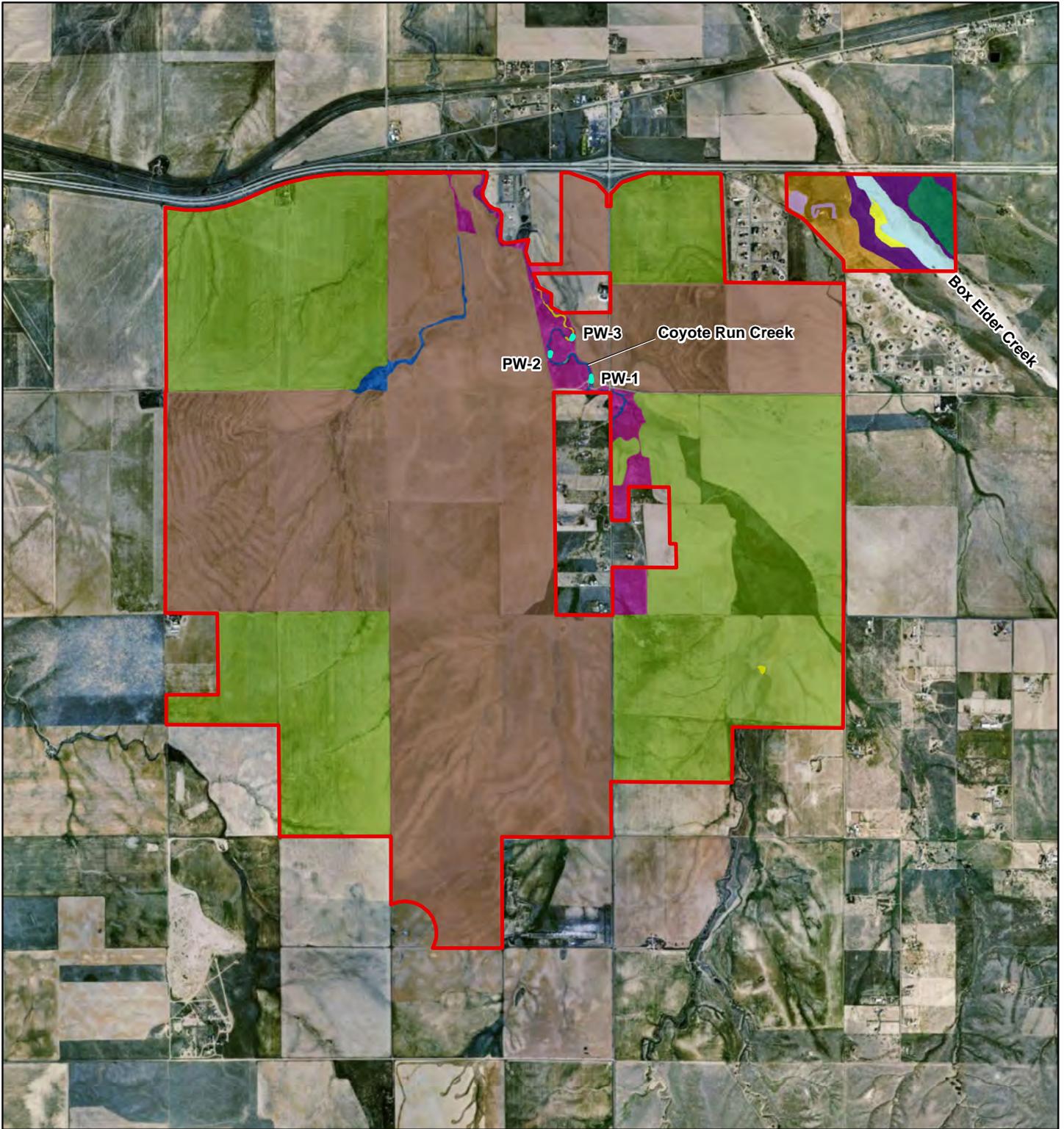
 Boundary April 2012



**Figure 2. Project Location Map  
Prosper Project**

Date: April 2012

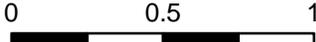
 **Western Ecological Resource, Inc.**  
711 Walnut Street, Boulder, CO 80302  
(303) 449-9009



**Legend**

- Project Boundary
- Fallow Wheat Fields
- Winter Wheat Plantings
- Disturbed Shortgrass Prairie
- Sand Prairie
- Moist Sand Prairie
- Potential Wetlands
- Sandy Riparian Habitat
- Drainage Swales
- Box Elder Creek Streambed
- Disturbed Weedy Habitats
- Ornamental Trees

**Figure 3. Vegetation Type & Potential Wetland Map Prosper Project**

  
 NORTH  
  
 0      0.5      1  
 Miles

Date: April 2012



**Western Ecological Resource, Inc.**  
 711 Walnut Street, Boulder, CO 80302  
 (303) 449-9009

The project area is located in the eco-region identified as the Great Plains-Palouse Dry Steppe Province of the dry domain (Bailey, 1995). This eco-region is characterized by a mean annual temperature of 35° to 45° F, but can reach an average high of 60° F in the southern parts of the region. Winters are cold and dry and summers are warm to hot. Precipitation varies in the Great Plains from 10 inches in the north to more than 25 inches in the south (Bailey, 1995). The average precipitation reported for Watkins is 15.81 inches.

### 3.0 Methods

Jerry Powell of Wildlife Specialties, LLC conducted field reconnaissance of the project site on March 13, 2012. A pedestrian survey was used to identify the habitat types present and their condition; note potential and current use by wildlife; and assess the suitability of these habitats for supporting sensitive species. Binoculars were used to examine areas for wildlife use prior to disturbing those areas by walking through them. Additional habitat observations were also made, where possible, by driving the property on agricultural and county roads. Please note, due to the timing of the survey, the avian diversity is not representative of the species that would be present during the breeding season.

### 4.0 Wildlife Habitats & Species Presence

#### 4.1 Habitats

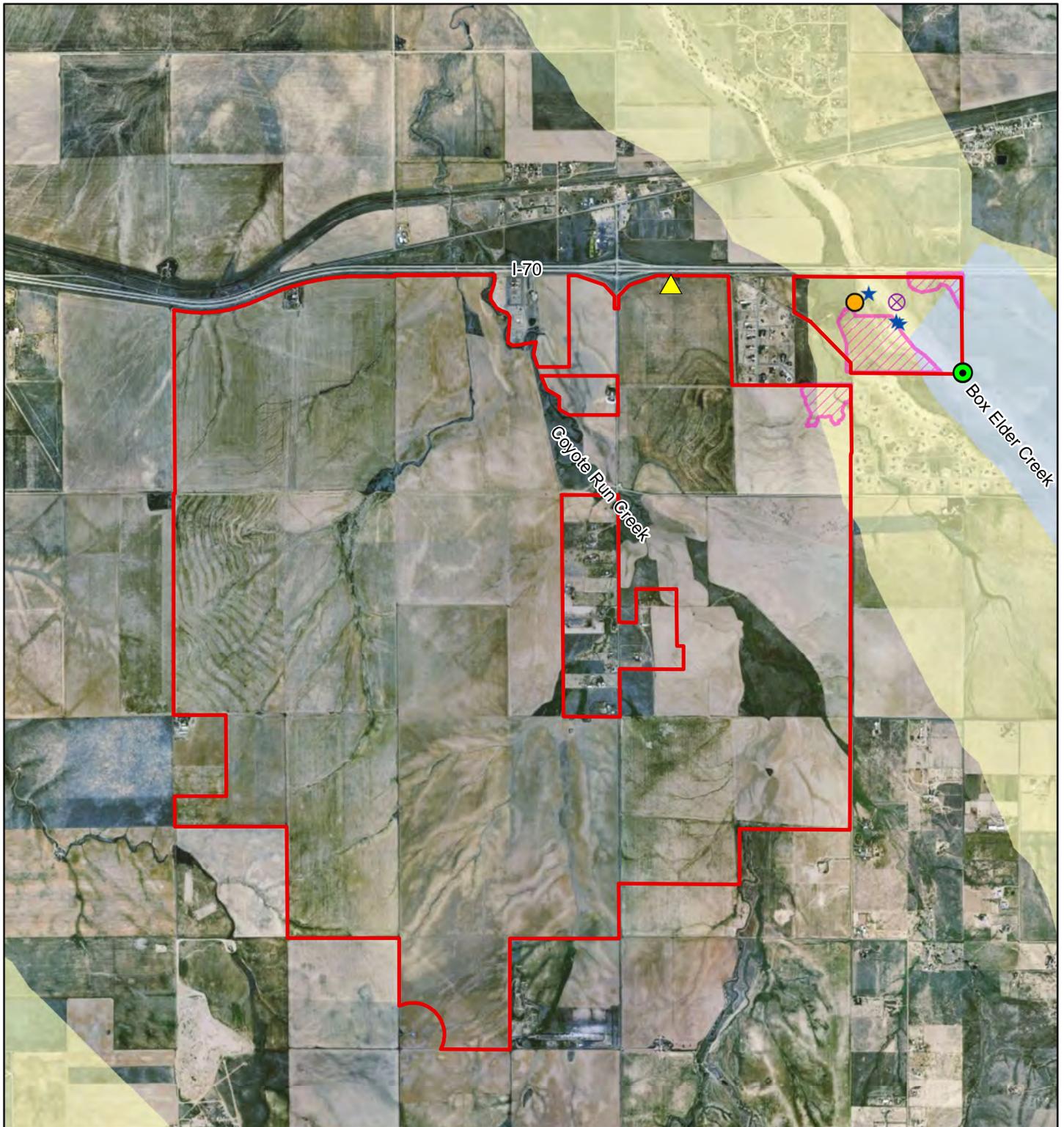
Most of the project site consists of agricultural habitat types including fallow winter wheat fields (~2,670 acres) and dryland winter wheat plantings (~2,128 acres). In addition, there are smaller areas of remnant native vegetation, although these are disturbed communities that generally support a high percentage of non-native and weedy plants. In general, all of the lands within the main and east parcels have been converted to agricultural land uses. Most of the remnant native vegetation occurs on the northeast parcel, which has been heavily grazed by horses and disturbed by black-tailed prairie dogs (*Cynomys ludovicianus*). These disturbances have resulted in poor vegetation cover with many noxious weeds and other undesirable species, particularly in the areas occupied by prairie dogs. Although it is disturbed, the northeast parcel is not actively farmed and contains the Box Elder Creek riparian corridor; therefore, it provides the highest quality wildlife habitat within the project area. However, the small size, separation from other native habitats, and proximity of I-70 reduce the wildlife habitat values of these remnant areas of native vegetation.

#### 4.2 General Wildlife Use

Figure 4 illustrates the locations of nests, dens, and other wildlife features identified on the project site. As shown by the figure, most of the wildlife activity observed within the project area occurred on the northeast parcel, where the highest quality habitat is located. In particular, the presence of the lowland riparian habitat increases the value of this parcel for wildlife. As illustrated by Figure 4, an active great horned owl (*Bubo virginianus*) nest (Photo 1), a coyote (*Canis latrans*) den (Photo 2), and three dilapidated black-billed magpie (*Pica pica*) nests were identified on the northeast parcel. In addition, there are two black-tailed prairie dog (*Cynomys ludovicianus*) coterries with a combined area of approximately 64 acres, and one active red-tailed hawk (*Buteo jamaicensis*) nest is located just



Photo 1:  
Great horned  
owl nest.

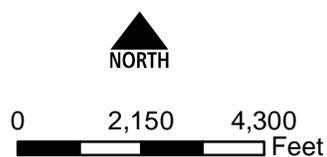


**Legend**

- Project Boundary
- Black-tailed Prairie Dogs
- Mule Deer Winter Range
- Mule Deer Severe Winter Range
- X Coyote Den
- ★ Black-billed Magpie Nests
- Great Horned Owl Nest
- Red-tailed Hawk Nest
- Swainson's Hawk Nest

**Figure 4. Wildlife Resources Prosper Project**

Date: April 2012



**Western Ecological Resource, Inc.**  
 711 Walnut Street, Boulder, CO 80302  
 (303) 449-9009



outside the project area at the southeast corner of the northeast parcel (Photo 3). One probable Swainson's hawk (*Buteo swainsoni*) nest was identified on the north edge of the main parcel in an area that was once a homesite. Black-tailed prairie dogs are also present in the northeast corner of the main parcel in an area totaling approximately 19.4 acres. This is an extension of one of the coterries that is present in the northeast parcel. Due to agricultural use of the main and

east parcels, these parcels primarily support habitat generalists that can adapt to habitat conversion.

In addition to the species mentioned above, the following species were either directly observed or identified based on physical evidence (tracks, scat, diggings, etc.): black-tailed jackrabbit (*Lepus californicus*), plains pocket gopher (*Geomys bursarius*), Ord's kangaroo rat (*Dipodomys ordii*), mule deer (*Odocoileus hemionus*), and pronghorn antelope (*Antilocapra americana*). Figure 4 illustrates the presence of mule deer winter range and severe winter range that has been mapped on the northeast parcel and extends onto the northeast corners of the main parcel and the east parcel, centered along the Box Elder Creek riparian corridor. In addition to the species identified, many small mammal trails, diggings, and droppings were observed. Avian species observed during the survey included horned larks (*Eremophila alpestris*), killdeer (*Charadrius vociferous*) and western meadowlarks (*Sturnella neglecta*). Wildlife diversity is not at the level that would exist in an un-altered native sand-sage/shortgrass prairie ecosystem, and as noted above, the avian species diversity is not representative of the species that would occur on the project site during the breeding season.



### 4.3 Federal Threatened, Endangered, and Candidate Wildlife Species

The U.S. Fish and Wildlife Service (USFWS) website was accessed on March 19, 2012 to develop a list of threatened, endangered, candidate and proposed species protected under the Endangered Species Act (ESA) which potentially occur or have potentially suitable habitat in the vicinity of the project area in Arapahoe County. It also includes four species that could potentially be impacted by water depletions to the South Platte River system in Arapahoe County. Table 1 identifies these species and their potential to occur within the project site. The habitat affinities and requirements for species discussed in the table are summarized from the Colorado Breeding Bird Atlas (Kingery, 1998); Mammals of Colorado (Fitzgerald et al., 1994); and Amphibians and Reptiles in Colorado (Hammerson, 1999). As summarized below, there is no habitat for any of these federally listed species in the project area.

Table 1. Federally Listed Species of Concern for the Project Area			
Species	Status	Habitat Requirements	Potential for Occurrence
<b>Fish</b>			
Pallid sturgeon <i>Scaphirhynchus albus</i>	FE	Meandering, braided channels and backwaters that provide different depths and flow velocities in the Missouri river.	Does not occur near the project area. Could potentially be affected if the project results in water depletions to the South Platte River.

<b>Table 1. Federally Listed Species of Concern for the Project Area</b>			
<b>Species</b>	<b>Status</b>	<b>Habitat Requirements</b>	<b>Potential for Occurrence</b>
<b>Fish</b>			
Pallid Sturgeon <i>Scaphirhynchus albus</i>	FE	Meandering, braided channels and backwaters that provide different depths and flow velocities in the Missouri river.	Does not occur near the project area. Could potentially be affected if the project results in water depletions to the South Platte River.
<b>Birds</b>			
Whooping Crane <i>Grus americana</i>	FE	Muskeg in the summer and prairie pools and marshes during migration. No historical nesting is known to have occurred in Colorado (Kingery 1998).	Does not occur near the project area. Could potentially be affected if the project results in water depletions to the South Platte River.
Least Tern (interior population) <i>Sterna antillarum</i>	FE	Sparsely vegetated sandy, gravelly, or silty beaches provide nest sites. Found on the shores of irrigation reservoirs and on islands in reservoirs or rivers (Kingery 1998).	Does not occur near the project area. Could potentially be affected if the project results in water depletions to the South Platte River.
Piping Plover <i>Charadrius melodus</i>	FT	In Colorado piping plovers nest on broad, sandy beaches, preferably on islands. Known only to nest in southeast Colorado (Kingery 1998).	Does not occur near the project area. Could potentially be affected if the project results in water depletions to the South Platte River.
Mexican Spotted Owl <i>Strix occidentalis lucida</i>	FT	Rocky canyons or forested mountains below 2,888 meters (9,500 feet) altitude. Nests in standing snags and hollow trees.	Does not occur in project area. Appropriate habitat is not present.
<b>Mammals</b>			
Preble's Meadow Jumping Mouse <i>Zapus hudsonious preblei</i>	FT	Riparian areas with lush vegetation.	Does not occur in project area. Appropriate habitat is not present.
FE = Federally Endangered FT = Federally Threatened			

The Black-tailed Prairie Dog, which occurs on the main parcel and the northeast parcel, was a candidate for listing under the ESA until 12 August 2004 (Federal Register, 2004). It is no longer under consideration for listing under the ESA and is managed by Colorado Parks and Wildlife (CPW – formerly the Colorado Division of Wildlife) as a species of special concern (SC) and as a game species with established hunting seasons on public lands; on private land it is managed by the Colorado Department of Agriculture as a pest species and has no limitation on when it can be hunted.

#### 4.4 State Species of Concern

The wildlife species of concern for the project area are based on data from the Colorado Natural Heritage Program (CNHP) and CPW. CPW has developed categories of imperilment for nongame (not hunted) species within the State of Colorado which are used to develop management and conservation strategies. These categories are defined as follows:

- **E Endangered:** those species or subspecies of native wildlife whose prospects for survival or recruitment within this state are in jeopardy, as determined by the Colorado Wildlife Commission (Commission).
- **T Threatened:** those species or subspecies of native wildlife which, as determined by the Commission, are not in immediate jeopardy of extinction but are vulnerable because they exist in such small numbers, are so extremely restricted in their range, or are experiencing such low recruitment or survival that they may become extinct.
- **SC Special Concern:** those species or subspecies of native wildlife that have been removed from the state threatened or endangered list within the last five years; are proposed for federal listing (or are a federal listing “candidate species”) and are not already state listed; have experienced, based on the best available data, a downward trend in numbers or distribution lasting at least five years that may lead to an endangered or threatened status; or are otherwise determined to be vulnerable in Colorado.

In addition, CNHP ranks the imperilment of species to assist in the development of statewide conservation priorities. Data available through CNHP include occurrences of species listed under the ESA, state-listed species, and the ranking of species and ecological communities according to their imperilment status. This database provides guidance regarding the known distribution of rare species in relation to proposed projects, and identifies potential conservation areas designed to protect rare species and important natural communities.

For each species, an imperilment ranking is assigned that identifies imperilment over its entire range (G-rank) and within Colorado (S-rank). When combined, these ranks identify the imperilment for that particular species. Definitions of the state and global rank follow, only up to G/S3; species with rankings of G/S4 and G/S5 generally are not imperiled:

- **G/S1 Critically Imperiled** globally/state because of rarity (5 or fewer occurrences in the world/state; or 1,000 or fewer individuals), or because some factor of its biology makes it especially vulnerable to extinction.
- **G/S2 Imperiled** globally/state because of rarity (6 to 20 occurrences, or 1,000 to 3,000 individuals), or because other factors demonstrably make it very vulnerable to extinction throughout its range.
- **G/S3 Vulnerable** through its range or found locally in a restricted range (21 to 100 occurrences, or 3,000 to 10,000 individuals).

Table 2 contains a list of the Species of Concern that potentially occur within Arapahoe County in the vicinity of the project site, and it includes the imperilment rankings of both CPW and CNHP under the “status” column. For those species noted as having no potential for occurrence within the project area, there will be no additional discussion herein.

Of the 21 sensitive species identified by the CNHP and CPW as potentially occurring within the project area, six are expected or are likely to occur within the project area: the Northern Leopard Frog, Burrowing Owl, Spotted Ground Squirrel, Olive-backed Pocket Mouse, Plains Pocket Mouse, and Ord’s Kangaroo Rat. Of these six species, one is classified by the CPW as State Threatened, the Burrowing Owl.

Table 2. Colorado Species of Concern Potentially Occurring in the Project Area			
Species	Status	Habitat Requirements	Potential for Occurrence
<b>Amphibians</b>			
Northern Leopard Frog <i>Rana pipiens</i>	G5/S3, SC	Wet meadows and the banks and shallows of marshes, ponds, glacial kettle ponds, beaver ponds, lakes, reservoirs, streams, and irrigation ditches.	Suitable potential habitat exists along Box Elder Creek.
Western Yellowbelly Racer <i>Coluber constrictor mormon</i>	G5/S3	Prairie grasslands, sandhills, open riparian woodlands, and shrubby foothills and canyons.	Suitable habitat does not exist within the project area due to the highly disturbed nature of the remnant native habitats.
<b>Birds</b>			
Snowy Egret <i>Egretta thula</i>	G5/S2	Feed in marshes, wet meadow, streams, rivers and shores of shallow ponds and reservoirs. Nest in trees and tall emergent wetland vegetation.	Suitable habitat does not exist within the project area.
American White Pelican <i>Pelecanus erythrorhynchos</i>	G3/S1	Breed on islands in reservoirs.	Suitable habitat does not exist within the project area.
White-faced ibis <i>Plegadis chihi</i>	G5/S2	Marshes, flooded areas.	Suitable habitat does not exist within the project area.
Black-necked Stilt <i>Himantopus mexicanus</i>	G5/S3	Freshwater lakes, ponds, wet meadows, and irrigated fields.	Suitable habitat does not exist within the project area.
Long-billed Curlew <i>Numenius americanus</i>	G5/S2	Shortgrass prairie.	Suitable habitat does not exist within the project area due to the highly disturbed nature of the remnant native habitats.
Ferruginous Hawk <i>Buteo regalis</i>	G4/S3, SC	Vast expanses of ungrazed or lightly grazed grassland and shrubland with varied topography, including hills, ridges, and valleys.	Suitable habitat does not exist within the project area.
Peregrine Falcon <i>Falco peregrinus</i>	G4/S2, SC	Nest on ledges of high cliffs, typically between 4,500 and 9,000 feet elevation.	Suitable habitat does not exist within the project area.
Plains Sharp-tailed Grouse <i>Tympanuchus phasianellus jamesi</i>	G4/S1, SE	Mixed tall and short grasses with abundant deciduous shrubs. Occur in medium to tall grasslands for courting and nesting in northern Weld County.	Suitable habitat does not exist within the project area.
Burrowing Owl <i>Athene cunicularia</i>	G4/S4, ST	Generally nest in rodent burrows, can excavate burrows in sandy soils.	Suitable habitat exists within the project area; associated with black-tailed prairie dog colonies.

Table 2. Colorado Species of Concern Potentially Occurring in the Project Area			
Species	Status	Habitat Requirements	Potential for Occurrence
<b>Mammals</b>			
Fringed Myotis <i>Myotis thysanodes</i>	G4/S3	Ponderosa pine woodlands, greasewood, oakbrush, and saltbrush woodlands.	Suitable habitat does not exist within the project area.
Big Free-tailed Bat <i>Nyctinomops macrotis</i>	G5/S1	Little known of their natural history. Five occurrences are documented in Colorado, one in Weld County.	Suitable habitat does not exist within the project area.
Spotted Ground Squirrel <i>Spermophilus spilosoma</i>	G5/S1	Prefer sandy soils with sparse vegetation and lightly grazed mixed-grass prairie with bunchgrasses and silvery wormwood.	Suitable habitat exists within the northeast parcel of the project area; its overall distribution is rather sparse (Armstrong et al. 2011).
Thirteen-lined Ground Squirrel <i>Spermophilus tridecemlineatus</i>	G5/S3	Short and midlength grasslands, less common on sandy soils.	Some habitat components exist within the project area; however, because of the soil type (sandy) it is not likely to occur within the project area.
Olive-backed Pocket Mouse <i>Perognathus fasciatus</i>	G5/S2	Prefer sites with loamy sand to clay soils and low vegetative cover, often with substantial amount of bare ground.	Suitable habitat exists within the project area.
Plains Pocket Mouse <i>Perognathus flavescens</i>	G5/S2	Highest reported capture rates are from sand sagebrush, margins of agricultural lands, including weedy fence rows, ditch banks and grain fields.	Suitable habitat exists within the project area.
Silky Pocket Mouse <i>Perognathus flavus</i>	G5/S3	Continuous short to midgrass prairie or herbaceous cover on loamy soils with small amounts of bare ground.	Suitable habitat does not exist within the project area.
Ord's Kangaroo Rat <i>Dipodomys ordii</i>	G5/S3	Sandy soils.	Occurs within the project area.
Eastern Spotted Skunk <i>Spilogale putorius</i>	G5/S2	Most common in agricultural areas, in rough, broken country with abundant stands of brush, or in riparian woodlands.	Suitable habitat does not exist within the project area. In Colorado only recorded from a few specimens collected along the eastern border of the state (Armstrong et al. 2011).
Swift Fox <i>Vulpes velox</i>	G3/S3, SC	Shortgrass and midgrass prairie, numerous in areas with relatively flat to gently rolling topography.	Suitable habitat does not exist within the project area. Requires large contiguous tracts of native shortgrass prairie.

The disturbed habitats occupied by prairie dogs on approximately 64 acres of the northeast parcel and about 19 acres of the main parcel are potential habitat for Burrowing Owls. The Burrowing Owl, as its name implies, nests in burrows made by small mammals and is frequently observed in prairie dog colonies. In Colorado, Burrowing Owls use the burrows of prairie dogs and other ground squirrel species (Kingery, 1998). Burrowing Owls favor flat early successional grasslands with very short grass or bare soil (Dobkin, 1994; Kaufman, 1996) and often nest colonially (Ehrlich et al., 1988; Kingery, 1998). The most important habitat characteristic is low or scattered vegetation that provides for predator detection. When vegetation is greater than ankle high, Burrowing Owls abandon their nest burrows (MacCracken et al., 1985; Plumpton and Lutz, 1993). Greater than 70% of all recorded observations of Burrowing Owls during the Colorado Breeding Bird Atlas survey were in shortgrass prairie in eastern Colorado (Kingery, 1998).

The breeding phenology of Burrowing Owls in Colorado is variable. The first individuals arrive in late March or early April. Egg dates (nests with eggs) ranged from 29 March to 1 July; fledged young have been documented as early as 8 May in Colorado (Kingery, 1998). No human encroachment or disturbance within 150 feet of an active Burrowing Owl nest is permitted (CDOW, 2006). Since Burrowing Owls may be present at burrows up to a month before egg laying, and for several months after young have fledged, any action that destroys burrows may not occur between 15 March and 31 October (CDOW, 2006).

#### **4.5 Migratory Bird Treaty Act**

All of the birds discussed above in Section 3.2 are migratory birds protected under the Migratory Bird Treaty Act, including the Great Horned Owl, Swainson's Hawk, Red-tail Hawk, Black-billed Magpie, Killdeer, Horned Lark, and Meadow Lark. In 1918 Congress passed the Migratory Bird Treaty Act (MBTA) (16 U.S.C. §§ 703-711) to protect birds from over harvest. The MBTA established a Federal prohibition, unless permitted by regulations, to "pursue, hunt, take..., for the protection of migratory birds...or any part, nest, or egg of such bird." The Act designates three groups of migratory birds: game birds; insectivorous birds; and other 'nongame' birds. Typically, only active nests (nests with eggs or young) are protected; inactive nests typically are not (except for those species protected under the ESA and raptors). The CPW and the USFWS do not allow the take of active or inactive raptor nests. Construction of homes, trails, etc. near a nest which leads to the abandonment of the nest can be considered as take.

Tolerance to disturbance by nesting birds varies between and within species. Reactions to disturbance can also vary, from subtle body changes undetectable to human observers to aggressive defense behavior. Some birds may fly away from the nest, appearing to be undisturbed, leaving the chicks vulnerable to overheating, chilling, or starvation. If a nest is abandoned as a result of human disturbance, failure of the nest can be viewed as a violation of the MBTA.

#### **4.6 Economically Important Wildlife Species**

Two species of big game animals, Mule Deer and Pronghorn Antelope, occur in the project area. Most of the project area does not provide suitable habitat for White-tailed Deer (*Odocoileus virginianus*), which are closely tied to wooded and riparian communities (Armstrong et al. 2011). It is possible that White-tailed Deer could occasionally occur near Box Elder Creek. Eight Mule Deer were observed moving from the middle of the main parcel to the east; four Pronghorn were observed in different locations grazing on winter wheat. Both species are wide-ranging and they characteristically have large home ranges.

The CPW Natural Diversity Information Source (NDIS) 2011 mapping of Mule Deer sensitive habitats (e.g. winter range, severe winter range) identifies the majority of the northeast parcel as Mule Deer winter range and a portion centered along the Box Elder Creek riparian corridor as Mule Deer severe winter range. The Mule Deer winter range extends onto the northeastern corners of both the main parcel and the east parcel. The entirety of the project site is mapped as

Mule Deer overall range. NDIS does not map any of the project area as any other type (e.g. migration corridors, etc.) of Mule Deer sensitive habitat, and there are no Pronghorn sensitive habitats mapped onsite. However, the entirety of the project site is mapped as Pronghorn overall range.

Data Analysis Units (DAU) are used by the CPW to manage herds of big game animals, are generally geographically discrete, and, for the most part, contain discrete big game populations. DAUs are designed to support and accomplish the objective of the CPW's Long Range Plan and meet the public's objectives for big game. Game Management Units (GMU) specifically examine local populations within the larger DAU. Thus, the Mule Deer and Pronghorn found within the project area are managed at the GMU level and an estimate of the number of individuals that use the project area in the winter is not available.

## **5.0 Proposed Development**

The Prosper Development Plan, prepared by Vogel and Associates, is illustrated by Figure 5. The proposed land uses are summarized in tabular form on the figure. The project would include 9,000 residential units on 2,790 acres; commercial/retail, mixed use, medical/educational, industrial/office space; civic space; a 29 acre community park; a wastewater treatment plant; a potential 81-surface-acre reservoir; detention and water quality ponds; and 1,534 acres of open space and rights-of-way. The open space will provide a buffer around the perimeter and a significant portion of the open space will be used for recreation and agricultural purposes.

## **6.0 Impacts & Mitigation**

### **6.1 General Wildlife Use**

Due to current land use practices, impacts associated with the Prosper project to general wildlife species would be minor since little wildlife habitat exists. The proposed Development Plan (Figure 5) indicates that the area of the Black-tailed Prairie Dog coterie in the northeastern corner of the main parcel is planned for open space, therefore no impacts are expected to occur within this area. However, the black-tailed prairie dog coterie located on the west side of the northeast parcel is planned for rural density residential development. Significant annual variation occurs in colony size (Hoogland 1995); prior to any management of these coterie, an updated review and mapping of the site is warranted to determine if the coterie have expanded or contracted in size and to count the number of burrow entrances to generate a gross population estimate.

The Box Elder Creek riparian corridor, which provides the highest quality wildlife habitat on the project site, will be protected from development and is planned as an open space corridor.

### **6.2 Federally Listed Wildlife**

The project area does not offer suitable habitat for any of the six federally listed species with potential to occur in Arapahoe County. No designated critical habitat for any of the species identified in Table 1 exists within or near the project area. Therefore, this project will not directly impact any species protected or proposed for protection under the ESA. However, Table 1 includes four species that, although they do not occur within Arapahoe County, could be affected by the project if it results in water depletions to the South Platte River system. However, the project will not result in any new water depletions (Palumbo 2013) and these species will not be impacted.

# PROSPER

PARCELS OF LAND SITUATED IN SECTIONS 5, 6, 7 & 18, T.4S., R.64W., AND SECTIONS 1, 2, 11, 12, 13, 14 & 24, T.4S., R.65W., OF THE 6TH P.M. COUNTY OF ARAPAHOE, STATE OF COLORADO ARAPAHOE COUNTY 1041 PERMIT

## LEGEND

### RIGHTS-OF-WAY

- Major Arterial
- Minor Arterial
- Boulevard
- Connector Road

### SCHOOLS & PARKS

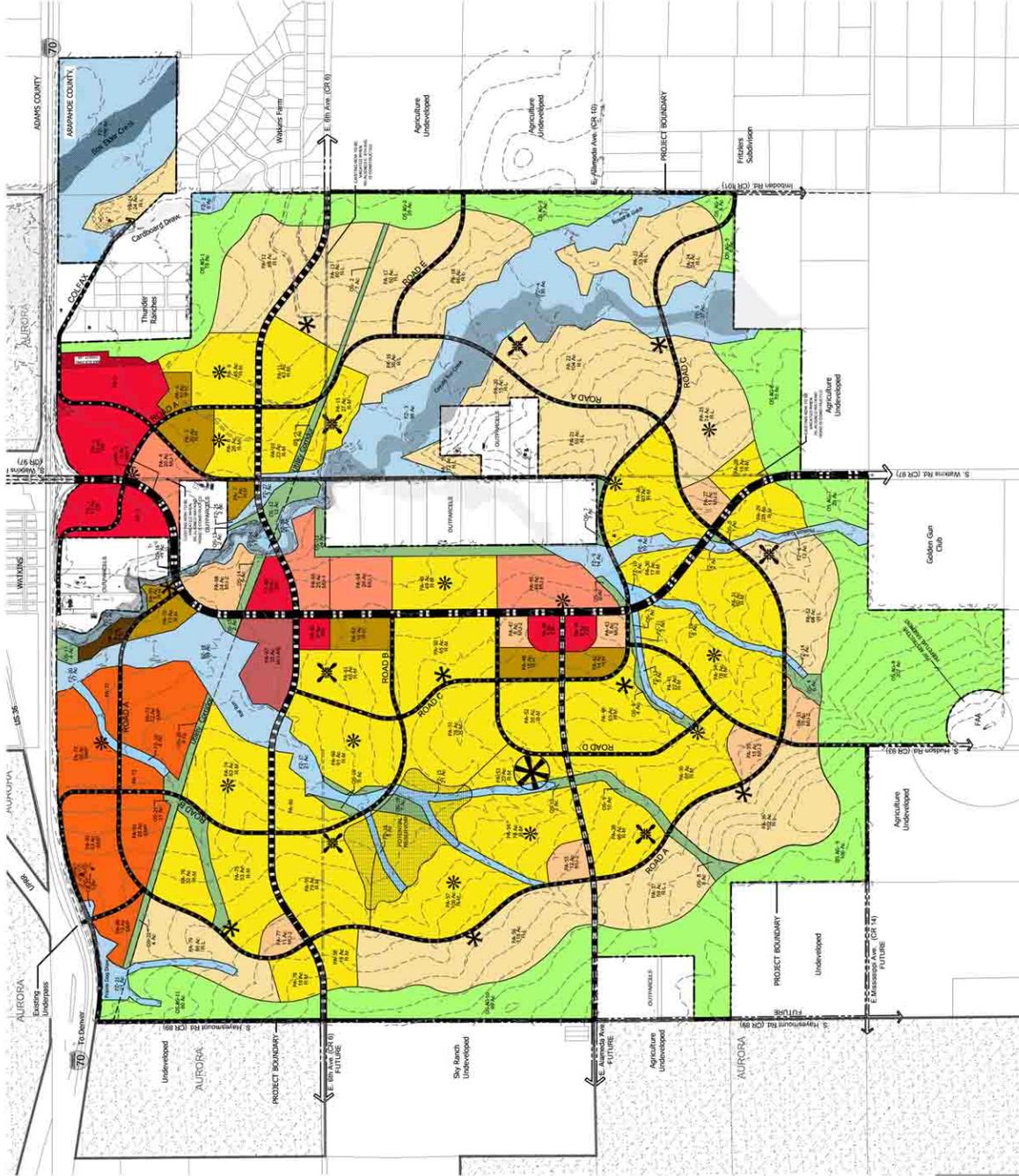
- School / Park
- Community Park
- Neighborhood Park
- Pocket Park

### WATERWAYS

- FEMA 100 Year Floodplain
- FEMA Floodway
- Potential Reservoir

### Land Use

Abbr.	Land Use
CR	Commercial/Retail
MU-1	Mixed Use Commercial
MU-2	Mixed Use Residential
MU-HE	Mixed Use (Medical / Educational / Campus)
EMP	Employment (Light Industrial/Flex/Office)
Residential	Residential
R-L	Low Density Residential
R-M	Medium Density Residential
R-H	High Density Residential
WWT	Waste Water Treatment
FZ	F-Zone (Floodplain)
OS	Open Space
OS-AG	Open Space - Agricultural



Scale:

Date:	JUNE 4, 2012
Revision:	OCTOBER 19, 2012
Date:	FEBRUARY 7, 2014
Date:	JULY 9, 2013
Date:	JUNE 20, 2014

Scale: 1" = 100'

0 100 200

**VOGEL & ASSOCIATES**  
 Denver, Colorado 80202-5566  
 (303) 993-4288

FIGURE 5: LAND DEVELOPMENT PLAN

### **6.3 State Species of Concern**

Impacts to the six state species of concern potentially occurring within the project site (Table 2) are expected to be minor. If any ground disturbing activities or prairie dog control efforts are to be conducted between 15 March and 31 October, Burrowing Owl surveys must first be conducted per CPW protocol. The survey area must extend for 150 feet beyond disturbance limits. If Burrowing Owls are found, the owls must be carefully monitored to determine which holes they are using. Once all the Burrowing Owl holes are located and marked, earth disturbing activities or control of prairie dog holes greater than 150 feet away can occur. Protection of Burrowing Owls, following these recommendations, would result in no impact to the species. Impacts to the Northern Leopard Frog, Spotted Ground Squirrel, Olive-backed Pocket Mouse, Plains Pocket Mouse, and Ord's Kangaroo Rat are expected to be negligible and will not impact the species viability.

### **6.4 Migratory Birds**

The Development Plan indicates that the suspected Swainson's Hawk nest would be impacted by commercial/retail development. The Red-tailed Hawk nest is located approximately 100 feet off the project site adjacent to proposed open space. Within the project area, disturbance of the active Red-tailed Hawk nest and the suspected Swainson's Hawk nest (when active) cannot occur. To protect against take of an active Red-tailed or Swainson's Hawk nest, buffer zones and seasonal restrictions exist (CDOW 2008). The buffer zone for Swainson's Hawk nests is ¼ mile with no human encroachment between 1 April and 15 July; the buffer zone for an active Red-tailed Hawk nest is 1/3 mile with no human encroachment between 15 February and 15 July (CDOW 2008). No trails, paths, etc. should be constructed within 1/3 mile of the Red-tailed Hawk nest to ensure that this nest will continue to be used by Red-tails in the future and incidental take (and associated violation) can be avoided (CDOW 2008). If implemented, these buffers and seasonal restrictions should assure that the individuals will continue to nest and loss of the nest does not occur. Adhering to the above CPW seasonal restrictions and buffer zones would result in no impact to either species.

The Development Plan indicates that the Great Horned Owl nest is located at the interface between open space and Rural Density Development. Great Horned Owls are generally tolerant of human disturbance. However, no earth disturbing activities should occur within 200 feet of the active nest (CDOW 2008). The nest site should not be impacted or removed until after August 15 to ensure that the young are no longer using the nest.

### **6.5 Economically Important Wildlife Species**

The Development Plan indicates the areas mapped as Mule Deer winter range within the main parcel are planned as open space; the area mapped as winter range within the northeast parcel is predominantly open space except for the southwest corner, which is identified as Rural Density Development. This development would impact approximately 25 acres of mapped Mule Deer winter range within the northeast parcel. All of the mapped severe winter range is identified in the sketch plan as open space. The existing Watkins Farm development is within the NDIS mapped Mule Deer winter range. This development has converted winter range habitat into predominantly unusable habitat that is likely avoided by Mule Deer. Some use of this area probably occurs at night or during crepuscular times of the day. Pets, especially dogs, further reduce the habitat quality of this area. The addition of Rural Density Development within the northeast parcel will not further reduce the usability of this area by Mule Deer. The proposed development will abut the existing development and would occur within an area having a highly modified plant community dominated by undesirable non-native invasive species. No development associated with the Prosper project would occur within NDIS mapped Mule Deer severe winter range. Portions of the existing Watkins Farm are located within mapped Mule Deer severe winter range, decreasing the value of the habitat to Mule Deer.

## 7.0 Conclusion

The majority of the project area is used for dry land farming and does not offer suitable habitat for most of the wildlife species which would exist within a native short-grass prairie ecosystem. Although there are small, remnant areas of native vegetation on the project site, these are disturbed plant communities with a high cover of introduced species; they are generally small in size; they are isolated from other contiguous areas of native habitats; and they are located in a highly modified landscape dominated by agricultural land uses and adjacent to neighborhoods and the I-70 ROW. All of these factors reduce the wildlife habitat value. The project area does not have habitat capable of supporting species listed, proposed for listing, or candidates for listing under the ESA. Sensitive species that occur within the project area would not be impacted by the proposed development if recommendations provided herein are followed. The proposed Prosper development will impact only a small portion of an already impacted area of mule deer winter range. These impacts are not expected to lead to a decrease in the local mule deer population.

Table 3 provides a summary of sensitive wildlife species that potentially occur within the project area, potential impacts associated with the Prosper Development, and mitigation necessary for protection of these species.

<b>Table 3. Sensitive Species With the Potential to Occur Within the Project Area</b>		
<b>Species</b>	<b>Potential Occurrence Location Within Project Area</b>	<b>Impacts/Mitigation</b>
<b>Amphibians</b>		
Northern Leopard Frog	Box Elder Creek	No impacts will occur along Box Elder Creek. No mitigation necessary.
<b>Birds</b>		
Swainson's Hawk	Possible nest located in trees at old home site on northern edge of Parcel A.	Nest tree could be removed as part of the development; no activity within ¼ mile of active nests from April 1 – July 15 (CPW 2008).
Red-tailed Hawk	Nest located outside the project area at the southeast corner of the northeast parcel.	Though the nest tree is out of the project limits, activities within the project area could impact the nest. No activity within 1/3 mile of active nests from February 15 – July 15 (CPW 2008).
Great Horned Owl	Nest is located at the interface between open space and Rural Density Development within the north east parcel.	Nest tree could be removed as part of the proposed development. No earth disturbing activities within 200 feet of active nest sites.
Burrowing Owl	Prairie dog coterries.	Surveys, per CPW protocol, of prairie dog coterries within the project area that would be impacted by the proposed development will need to be conducted to determine if burrowing owls are present if prairie dog removal occurs between March 15 and October 31. If burrowing owls are found within coterries impacted by the development, no activities within 150 feet of active burrows are allowed (CPW 2008).

<b>Table 3. Sensitive Species With the Potential to Occur Within the Project Area</b>		
<b>Species</b>	<b>Potential Occurrence Location Within Project Area</b>	<b>Impacts/Mitigation</b>
<b>Mammals</b>		
Spotted Ground Squirrel	Northeast parcel near Box Elder Creek.	Some burrows could be impacted during development and some individuals could be killed. No reasonable mitigation options are available.
Olive-backed Pocket Mouse	Northeast parcel near Box Elder Creek.	Some burrows could be impacted during development and some individuals could be killed. No reasonable mitigation options are available.
Plains Pocket Mouse	Northeast parcel near Box Elder Creek.	Some burrows could be impacted during development and some individuals could be killed. No reasonable mitigation options are available.
Ord's Kangaroo Rat	Northeast parcel near Box Elder Creek.	Some burrows could be impacted during development and some individuals could be killed. No reasonable mitigation options are available.

## 8.0 Literature Cited

- Armstrong, D.L., J.P. Fitzgerald, and C.A. Meaney. 2011. *Mammals of Colorado*. 2nd. Ed. Denver Museum of Nature & Science and University Press of Colorado. 620 pgs.
- Bailey, R. G. 1995. *Description of the ecoregions of the United States*. 2d ed. Rev. and expanded (1<sup>st</sup> ed. 1980). Misc. Publ. No. 1391 (rev.), Washington
- Colorado Division of Wildlife. 2006. Recommended survey protocol and actions to protect nesting burrowing owls when conducting prairie dog control.
- \_\_\_\_\_. 2008. Recommended buffer zones and seasonal restrictions for Colorado raptors.
- Colorado Natural Diversity Information Source (NDIS).  
<http://ndis.nrel.colostate.edu/conservationcnty.asp?cnty=005>
- Dobkin, D.S. 1994. *Conservation and management of neotropical migrant landbirds in the Northern Rockies and Great Plains*. University of Idaho Press, Moscow, Idaho. 221 pps.
- Ehrlich, P.R., D.S. Dobkin and D. Wheye. 1988. *The birders handbook: a field guide to the natural history of North American birds*. Simon and Schuster Inc. 785 pages.
- Federal Register. 2004. Department of the Interior, Fish and Wildlife Service. 50 CFR Part 17. Endangered and Threatened Wildlife and Plants; Finding for the Resubmitted Petition To List the Black-Tailed Prairie Dog as Threatened. August 18. Volume 69, Number 159, pp. 51217-51226.
- Fitzgerald, J. P., Meaney C. A., and D. M. Armstrong. 1994. *Mammals of Colorado*. Published by the Denver Museum of Natural History.
- Hammerson, G.A. 1999. *Amphibians and reptiles in Colorado*. 2<sup>nd</sup> Edition. University Press of Colorado and Colorado Division of Wildlife. 484 pages.
- Kingery, H.E. 1998. *Colorado Breeding Bird Atlas*. H. E. Kingery, ed. Published by Colorado Bird Atlas Partnership and Colorado Division of Wildlife.
- Kaufman, K. 1996. *Lives of North American birds*. Sponsored by the Roger Tory Peterson Institute. Houghton Mifflin Company, Boston, Massachusetts. 675 pages.
- MacCracken, J.G., D. W. Uresk, and R. M. Hansen. 1985. Vegetation and soils of burrowing owl nest sites in Conata Basin, South Dakota. *Condor* 87:152-154.
- Palumbo, Mark. 2013. Personal communication. HRS Water Consultants, Lakewood, Colorado.
- Plumpton, D. L. and R.S. Lutz. 1993. Prey selection and food habits of burrowing owls in Colorado. *Great Basin Nat.* 53:299-304.



---

Prosper Project  
Arapahoe County 1041 Application  
Section 12. Environmental Impact Analysis  
h. Soils, Geologic Conditions & Natural Hazards

---

*prepared for:*

**Vogel & Associates**

475 W. 12<sup>th</sup> Ave, Suite E, Denver, CO 80204

*prepared by:*

**Western Ecological Resource, Inc.**

711 Walnut Street, Boulder, CO 80302

April 2013

Acknowledgement:

Geological and Other Natural Hazard Evaluation prepared by:

David Buscher  
Buscher Soil & Environmental, Inc.  
P.O. Box 156  
Rollinsville, CO 80474

## Table of Contents

<u>Section / Title</u>	<u>Page</u>
1.0 Introduction .....	1
2.0 Project Description.....	1
3.0 Site Description.....	1
3.1 Geology .....	2
3.2 Soils .....	2
4.0 Geologic and Other Natural Hazards .....	2
4.1 Slope Stability .....	2
4.2 Shrink-Swell Potential.....	3
4.3 Seismic Effects .....	4
4.4 Radioactivity .....	4
4.5 Subsidence.....	4
4.6 Flooding.....	5
4.7 Wildfire.....	5
5.0 Mineral Resources.....	6
6.0 Effects on Soils, Streambed Meander Limits and Aquifer Recharge Areas.....	6
7.0 Recommendations.....	7
8.0 Conclusions .....	8
9.0 Figures .....	9
10.0 References .....	16

**List of Figures**

<u>Number / Title</u>	<u>Page</u>
Figure 1: Vicinity Map Prosper Project .....	10
Figure 2: Project Location Map Prosper Project .....	11
Figure 3: Prosper Development Plan Map .....	12
Figure 4: Geology Map Prosper Project .....	13
Figure 5: Soil Map Prosper Project .....	14
Figure 6: Geologic Hazard Map Prosper Project.....	15

**List of Photos**

<u>Number / Title</u>	<u>Page</u>
Photo 1: Terrace Escarpment along Coyote Run Creek .....	3
Photo 2: Winter Wheat Field.....	5

## 1.0 Introduction

This report presents the results of a geologic and other natural hazard assessment of the Prosper Project, which is located immediately south of Watkins in unincorporated Arapahoe County, Colorado and about five miles south of the Denver International Airport (see Figure 1). The purpose of this hazard assessment is to identify lands that pose potential hazards to human life and safety and to property due to geologic and other natural characteristics, and to help ensure that development avoids geologic and natural hazardous areas whenever possible. Mineral resources at the site and the potential effects on soils, streambed meander limits, and aquifer recharge areas due to development are also evaluated. The information in this assessment will be used for a 1041 Permit Application.

This assessment was conducted in accordance to and required by Arapahoe County's Regulations Governing Areas and Activities of State Interest (1041 Regulation; Arapahoe County 2006), and more specifically followed the guidelines outlined in "Guidelines and Criteria for Identification and Land-Use Controls of Geologic Hazard and Mineral Resources Areas" (Rogers et al 1974). A geologic hazard, as defined by Rogers et al. 1974, is a geologic phenomenon, which is so adverse to past, current, or foreseeable construction or land use as to constitute a significant hazard to public health and safety or to property. Potential geologic hazards at the site that were evaluated include unstable slopes, expansive soil and rock, seismic effects, radioactivity, and ground subsidence. Because of the nearly level topography, gently dipping geologic stratigraphy, and the lack of rock outcrops at the project site, some hazards, including avalanches, landslides, rockfalls, mudflows and debris fans, were eliminated from the analysis. In addition to geologic hazards, other potential natural hazards at the site including flooding and wildfires were also evaluated.

This assessment was conducted by Dave Buscher with Buscher Soil & Environmental, Inc. Mr. Buscher is a certified professional soil scientist and professional geologist with over 25 years of professional experience. The assessment was based entirely on existing data and reports, and the scope was limited to compilation and review of relevant literature, aerial photography, and maps; evaluation of site geologic and soil data; and preparation of the results that are provided in this report.

## 2.0 Project Description

The Prosper project will be a subdivision encompassing 5,130 acres of agricultural land several miles east of Denver, Colorado immediately south of Interstate 70. The Prosper Development Plan, prepared by Vogel and Associates, is illustrated by Figure 3. The proposed land uses are summarized in tabular form on the figure. The project would include 9,000 residential units on 2,790 acres; commercial/retail, mixed use, medical/educational, industrial/office space; civic space; a 29 acre community park; a wastewater treatment plant; a potential 81-surface-acre reservoir; detention and water quality ponds; and 1,534 acres of open space and rights-of-way. The open space will provide a buffer around the perimeter and a significant portion of the open space will be used for recreation and agricultural purposes.

## 3.0 Site Description

Currently the Prosper Project is agricultural land consisting of wheat and fallow fields and includes all or portions of sections 1, 2, 11, 12, 13, 14, and 24 in T4S R65W, and portions of sections 5, 6, 7 and 18 in T4S R64W (see Figure 3). The site slopes to the north and consists of low rolling uplands with gently sloping to moderately steep ridgetops, side slopes and alluvial terraces with slopes from about 0 to 10 percent but near vertical at isolated terrace escarpments. Elevations range from 5,510 feet above mean sea level at the north end of the property to 5,780 feet at the

south end. Box Elder Creek flows in a northwesterly direction through the extreme northeast portion of the property, and an intermittent drainage west of Box Elder Creek, herein called Coyote Run Creek, that drains the majority of the project site flows northerly. Gas pipeline easements crosses the north half of the project site in a northwesterly-southeasterly direction.

### **3.1 Geology**

The project site lies within the Denver Basin, which extends from the Front Range east to near Limon, Colorado. The Denver Basin was created when the Laramide Front Range was formed about 70 to 40 million years ago. As the mountains pushed up, a huge basin formed to the east. Over millions of years, this basin filled with layer after layer of gravel, sand and mud that eroded from the adjacent new mountains. Strata several thousand feet thick in the Denver Basin document this erosion of the Laramide Rockies (Raynolds et al 2012).

Geology of the project site is shown in Figure 4 (Alden 2012). The site consists predominately of the Denver Formation or Lower Part of Dawson Arkose (TkdI). There is a small unit of the Upper Part of the Dawson Arkose (Tdu) in the extreme southern tip of the project area, and some modern alluvium (Qa) along Box Elder Creek and Coyote Run Creek.

The Dawson Arkose and Denver Formation were deposited by laterally shifting streams emanating from the Front Range (Hanson and Crosby 1982). The Dawson Arkose is Paleocene to Upper Cretaceous in age and consists of arkosic conglomerate or coarse sandstone, siltstone and claystone. The maximum thickness is about 750 meters and overlies the Denver Formation. The Denver Formation is Paleocene to Upper Cretaceous in age and consists of fluvial claystone, siltstone, sandstone and conglomerate. It has a maximum thickness of about 280 meters. Some of the strata in these formations contain rocks with montmorillonite that swells when wet.

### **3.2 Soils**

The soils at the project site are shown in Figure 5, and the soil information that follows was taken from the Arapahoe County Soil Survey (USDS-SCS 1971). Soils at the site are very deep (greater than 60 inches to bedrock) to moderately deep (20 to 40 inches to bedrock) and occur on gently sloping to moderately steep hills and alluvial terraces with slopes from about 0 to 10 percent but are up to about 80 percent at terrace escarpments along the intermittent drainage.

Most of the soils were derived in eolian and alluvial deposits, but some were derived in material weathered from shale and sandstone. The dominant soils at the project site are Adena, Colby, Fondis, Nunn, Renohill, and Weld. These soils are well drained and commonly contain high amounts of silt and sand, consequently they are highly susceptible to wind and water erosion. The Nunn and Fondis soils are more clay rich than the other soils, and both contain soil horizon(s) having a clay texture (at least 40 percent clay). The Fondis soils have horizons containing high amounts of montmorillonite clay, and therefore, are highly susceptible to swelling.

## **4.0 Geologic and Other Natural Hazards**

This section describes the potential geologic and other natural hazards that were evaluated in the hazard analysis. The hazards analyzed included slope stability, shrink-swell potential, seismic effects, radioactivity, ground subsidence, flooding and wildfires. The hazards that were determined to pose a concern to human health and safety and/or to stability of structures are shown in Figure 6.

### **4.1 Slope Stability**

Most slopes within the project area are gently sloping to moderately steep and stable, except some terrace escarpments in Map Unit Tc (see Photo 1). This map unit has very steep banks that are as high as 25 feet and as steep at about 80 percent. These steep escarpments have a severe hazard to

having severe hazard to soil slipping and sloughing. Some soils at the project site are composed of eolian sands, which have very low shear strength and consequently are unstable. Steep-cut slopes into this sandy material would be susceptible to collapse (Hanson and Crosby 1982). Terrace escarpments and any steep-cut slopes may require slope stabilization controls.



**Photo 1: Terrace escarpment along Coyote Run Creek**

## **4.2 Shrink-Swell Potential**

Shrink-swell potential refers to soil and rock behavior under conditions of wetting and drying. Soils and rock high in clay of the expanding lattice minerals, such as montmorillonite, have high shrink-swell potential. The amount of shrink-swell a soil or rock undergoes affects stability of foundations, roads, sewage tile and other buried lines and structures.

The soils on the project site have low<sup>1</sup> to moderate<sup>2</sup> shrink-swell potential; except for the Fondis soils have severe<sup>3</sup> shrink-swell potential. Fondis soils are in map units FdB (Fondis silt loam, 1 to 3 percent slopes), FdC (Fondis silt loam, 3 to 5 percent slopes), and FoC (Fondis-Colby silt loams, 3 to 5 percent slopes). Figure 6 shows soils having severe shrink-swell potential. The Fondis soils are composed of silt loam derived from wind-blown deposits that overlie older buried soil containing montmorillonite clay. These map units make up about 608 acres and occur primarily in the eastern half of the project area. Foundations, roads, buried utilities, and other structures may require special building designs in these soil map units.

According to the Colorado Geological Survey (Hart 1974) the windblown deposits at the site generally have low to moderate swell potential, but the thickness of these deposits may be variable, and bedrock with higher swell potential may locally be less than 10 feet below the surface. The Dawson and Denver Formations that occur at the project site contain some shale and claystone units that may contain highly swelling clays.

---

<sup>1</sup> Low rating is given to soils that have properties favorable for the use.

<sup>2</sup> Moderate rating is given to soils that have properties moderately favorable for the use, and the degree of limitation can be overcome by special design.

<sup>3</sup> Severe rating is given to soils that are unfavorable for the use, and that the degree of limitation generally requires special and expensive design.

### 4.3 Seismic Effects

The project site falls within the Plains Seismotectonic Province, which includes the eastern one-third of Colorado. Tectonic deformation in this province has been documented during the Precambrian, late Paleozoic, and Laramide orogeny, but no evidence of major Neogene (Miocene and Pliocene) activity is present within this province (Kirkham and Rogers 1981). The project site is within Seismic Building Zone 1, which is considered a relatively low seismic risk zone (USDA-Rural Development 2006).

The frequency of earthquakes strong enough to cause ground breakage along the Front Range has been very low. Despite the low frequency of past events, however, the possibility of large earthquakes in the future cannot be discounted, and further Holocene movements are possible (Hanson and Crosby 1982).

### 4.4 Radioactivity

Radon is ubiquitous in air and is an odorless, tasteless and invisible gas produced by the decay of naturally occurring uranium in soil and water. Radon is a form of ionizing radiation and a proven carcinogen. It is the number one cause of lung cancer among non-smokers, according to EPA estimates, and is the second leading cause of lung cancer (EPA 2012). Radon is not only found in outdoor air but in the indoor air of buildings of all kinds. EPA recommends homes be fixed if the radon level is 4 pCi/L (pico Curies per Liter) or more. Because there is no known safe level of exposure to radon, EPA also recommends that fixing homes for radon levels between 2 pCi/L and 4 pCi/L.

The project site is composed predominately of the Denver Formation or lower part of Dawson Arkose (see section 3.1). Based on a radon study (Colorado Geological Survey 1991), these geologic formations had an average radon concentration of 5.39 pCi/L. The report stated that formations that exceed 10 pCi/L radon should employ radon mitigation techniques to minimize any potential radon problems.

Based on an indoor radon study conducted by the EPA (U.S. EPA 1993), indoor radon screening measurements in Arapahoe County were between 4.1 and 9.9 pCi/L, and the geologic radon potential in Arapahoe County is high. In addition, Arapahoe County is within Radon Zone 1, which has an average predicted indoor radon screening potential of greater than 4 pCi/L. Given this information, radon mitigation will likely be required.

### 4.5 Subsidence

According to the Colorado Geological Survey (Hart 1974) the windblown sand and silt deposits at the project site may be subject to severe settlement or hydrocompaction when water is allowed to saturate these deposits. Hydrocompaction is a property of some dry, unconsolidated deposits to undergo after wetting, spontaneous consolidation, settling, and cracking. Commonly this occurs in areas that are normally dry, but are subjected to abnormal wetting resulting from activities such as sewage disposal systems, irrigation systems, or water carrier breakage.

Most unconsolidated soils tend to subside under loads, particularly when wetter, for example in new subdivisions when new lawns, gardens, and trees are being irrigated by homeowners, or when water from roofs is concentrated in downspouts. Susceptibility to subsidence depends partly on void ratios and on cementation; it may be slight or may be great enough to damage footings, foundations, and roads (Hanson and Crosby 1982).

Land subsidence can also be caused by coal-mine subsidence from historic mining, which can cause sinking or collapse of the ground surface above abandoned underground mines. There has been historic coal mining in the vicinity, but the nearest known historic coal mine is about two miles west of the project site, so subsidence from historic mining at the site is negligible (Cappa et al 2003).

## 4.6 Flooding

Floods in the vicinity of the project site generally result from intense rainfall of short duration. With urbanization, infiltration and ground-water recharge decreases and runoff increases, all contributing to increase peak flow volumes in drainages. Arapahoe County requires that platted lots be located outside FEMA's 100-year floodplain limits, and requires a minimum of two-feet of freeboard (clearance) between the 100-year water surface elevation and the lowest finished floor elevation of all structures within and adjacent to the area of special flood hazard (Arapahoe County 2011). Also according to Arapahoe County regulations, floodplains must be preserved for the primary function of conveying unobstructed floodwaters. Land within the floodplain may be used for other purposes so long as the primary conveyance and storage function of the floodplain is preserved, the use is not a detriment to water quality, and the use is consistent with the district.

Figure 3 shows FEMA's 100-year floodplain boundary at the project site. All development envelopes fall outside the 100-year floodplain, and all drainageways and areas within the 100-year floodplain at the project site will be left as open space.

## 4.7 Wildfire

The risk for wildfire was evaluated based on National Fire Protection Association (NFPA) 1144 standards for reducing structure ignition hazards from wildland fires (NFPA - Technical Committee on Forest and Rural Fire Protection 2008). The project site consists predominately of winter wheat and fallow fields with scattered plains cottonwood, peachleaf willow, and Chinese elm (see Photo 2). There are some areas of disturbed native grasslands composed of annual and perennial grasses. These vegetation communities fall under fuel model A, which represents western grasslands vegetated by annual grasses and forbs with sparse brush and trees occupying less than one-third of the area. Fuels are considered combustible materials within the wildland/urban interface or intermix, including, but not limited to, vegetation and structures. The vegetation of Model A is considered to be a low fire fuel, and thus the project site has a low wildfire hazard.



Photo 2: Winter wheat field

## 5.0 Mineral Resources

This section evaluates the potential mineral resources at the project site. The mineral resources evaluated included oil and gas, coal, metallic minerals, and industrial minerals, which at the project site are sand, gravel and clay.

The vicinity of the project site has the essential elements for potential of oil and gas production. The majority of oil and gas production in Arapahoe County is from sandstones of the Dakota Group (J and D Sandstones), the Niobrara Formation, and the Codell Sandstone. The J and D Sandstones are productive and/or prospective throughout most of the county, and the Codell Sandstone and Niobrara Formation are productive and/or prospective in the northwestern portion of Arapahoe County (Cappa et al 2003).

There are several active oil and gas fields within Arapahoe County, one being a few miles south of the project site (Cappa et al 2003). A search of Colorado Oil and Gas Information System (COGIS) was conducted on March 27, 2012 for leases, wells, and other oil and gas facilities at the project site (Colorado Oil and Gas Conservation Commission 2012). There are numerous oil and gas facilities in the vicinity of the site, and there is one abandoned well site in the southwest corner of Section 2 T4S R65W; there are currently oil and gas leases on the project site located within Sections 1 and 2 of T4S R65W. As stated earlier, a gas pipeline easement crosses the northern portion of the project site.

The Denver Formation that occurs at the project site does have some potential for coal production, and there is an unnamed historic coal mine two miles west of the project site. The Scranton coal mining district lies north of Watkins, but there is no active coal mining within the district. In fact, there has not been any commercial coal mining in the Denver Basin, in which the project site lies, for more than 20 years, and the likelihood of any significant revival of coal mining seems remote at this time. There is also potential for development of coal-bed methane resources in the area (Roberts 2007).

According to Cappa et al 2003 there are no known metallic mineral resources in Arapahoe County.

The alluvium in Box Elder Creek, in the northeast portion of the project area, has potential as a source of sand (Cappa et al 2003). But according to Schwachow et al (1974) the valley-fill deposits in Box Elder Creek will probably not become a significant resource for sand and gravel because of the thick overburden and importance of the area's farmlands and ground-water resources.

In summary, the project site does have potential for oil and gas production and for coal and coal-bed methane production. It also has some potential as a sand source, but has little to no potential for metallic minerals and industrial minerals other than sand.

## 6.0 Effects on Soils, Streambed Meander Limits and Aquifer Recharge Areas

Of the 5,130-acre site, about 3,251 acres would be potentially disturbed by development activities, and soil productivity and morphology would be permanently lost and/or altered for several to many years in these areas. Many of these soils are considered prime farmland but require appropriate crops, such as winter wheat or pasture, and require special conservation practices to control erosion.

Prime farmland is land that has the best combination of physical and chemical characteristics for producing food, feed and forage and that is available for these uses. It has the combination of soil properties, growing season, and moisture supply needed to produce sustained high yields of crops

in an economic manner if it is treated and managed according to acceptable farming methods (USDA-Soil Survey Division Staff 1993).

The project site contains about 3,010 acres of prime farmland (non-irrigated only), and includes soil map units BkB, BIB, BxC, FdB, FdC, FoC, NIB, NrB, WeB, and WrB (see Figure 5) (USDA-SCS 1971). This prime farmland would be permanently lost from crop production.

With urbanization, infiltration and ground-water recharge decrease, thus reducing base flow and lowering the water table. Much of the project site would be converted to impervious surfaces such as rooftops, parking lots, roads and other structures thus reducing aquifer recharge areas and causing more runoff into drainageways. Consequently, stream flow after urbanization is higher during and just after storm events and is lower during other times (Hanson and Crosby 1982), and an increase in runoff transports more sediment to waterways. With increased runoff and sedimentation from development most natural channels over time will readjust to higher flows following storm events and will degrade resulting in bank erosion and channel incision or aggradation. With additional sedimentation, the natural tendency of a streambed is to aggrade, flattening its slope, and then progressively increase belt width, or meander limits (Rosgen 1996).

The effects on Box Elder Creek should be minimal since there is no projected development of significance nearby. All other drainageways will have adjacent developments, but are to be left as open space (see Figure 3), which will help ensure that these drainageways will be protected with a vegetative cover, thus reducing the potential for channel degradation. Given the increase of sediments and increase peak flow volumes, fluvial morphology and/or engineering studies should be conducted to assess potential channel stability, channel capacity, and to determine if channel bank protection methods are needed.

## 7.0 Recommendations

Arapahoe County's grading, erosion and sediment control regulations require that effective grading, erosion and sediment control Best Management Practices (BMPs) be implemented as a standard for all land disturbance activities (Arapahoe County 2011). Many of the soils at the project site contain sandy and silty soils having severe water and wind erosion hazards. In addition to the erosion and sediment control BMPs outlined in the Arapahoe County Grading, Erosion and Sediment Control Manual (Arapahoe County 2010), extra precautions by both the developer and the County may need to be considered during the project design phase to minimize wind and water erosion of these highly erosive soils.

Very steep terrace escarpments (soil map unit Tc) have a severe hazard to soil slipping and sloughing. These escarpments occur along segments of an incised intermittent drainage (see Photo 1). According to the development plans, these slopes are to remain in open space (see Figure 3), which will ensure that a vegetative cover helps to protect them from erosional forces. In addition, Arapahoe County regulations stipulate that historic drainage pattern must be preserved, steep slopes protected, and that site grading provide adequate conveyance paths for storm runoff (Arapahoe County, 2010). Site specific geotechnical studies would determine the stability of these escarpments, and fluvial morphology and/or engineering studies would determine channel stability given the increase of sediment and increase peak flow volumes. These studies would also determine if slope and/or channel bank stabilization methods are required.

The Fondis soil in soil map units FdB, FdC and FoC have severe shrink-swell potential, and shale and claystone geologic strata also potentially have high swell potential. Methods to prevent or minimize damage from swelling clays should be included at the design stage of construction of any structure on potentially swelling clays (see Figure 6). These methods include special foundation design, such as deep pier and grade berm foundations, reinforced foundation slabs or floating floor slabs, removal of expansive soil and replace it with non-expansive fill, and surround

buildings with 4-foot wide or wider impermeable membrane. Also utilize proper drainage-control strategies such as French drains and proper landscaping to maintain positive drainage and to prevent standing water near foundations (Hart 1974). Another alternative is to avoid building in soils determined by a soil engineer to have a severe shrink-swell potential.

Site specific geotechnical studies should be conducted to assess the extent and severity of shrink-swell potential of soils and bedrock. In addition, a professional engineer(s) should design sound building techniques to prevent damage to homes and roads from swelling soils.

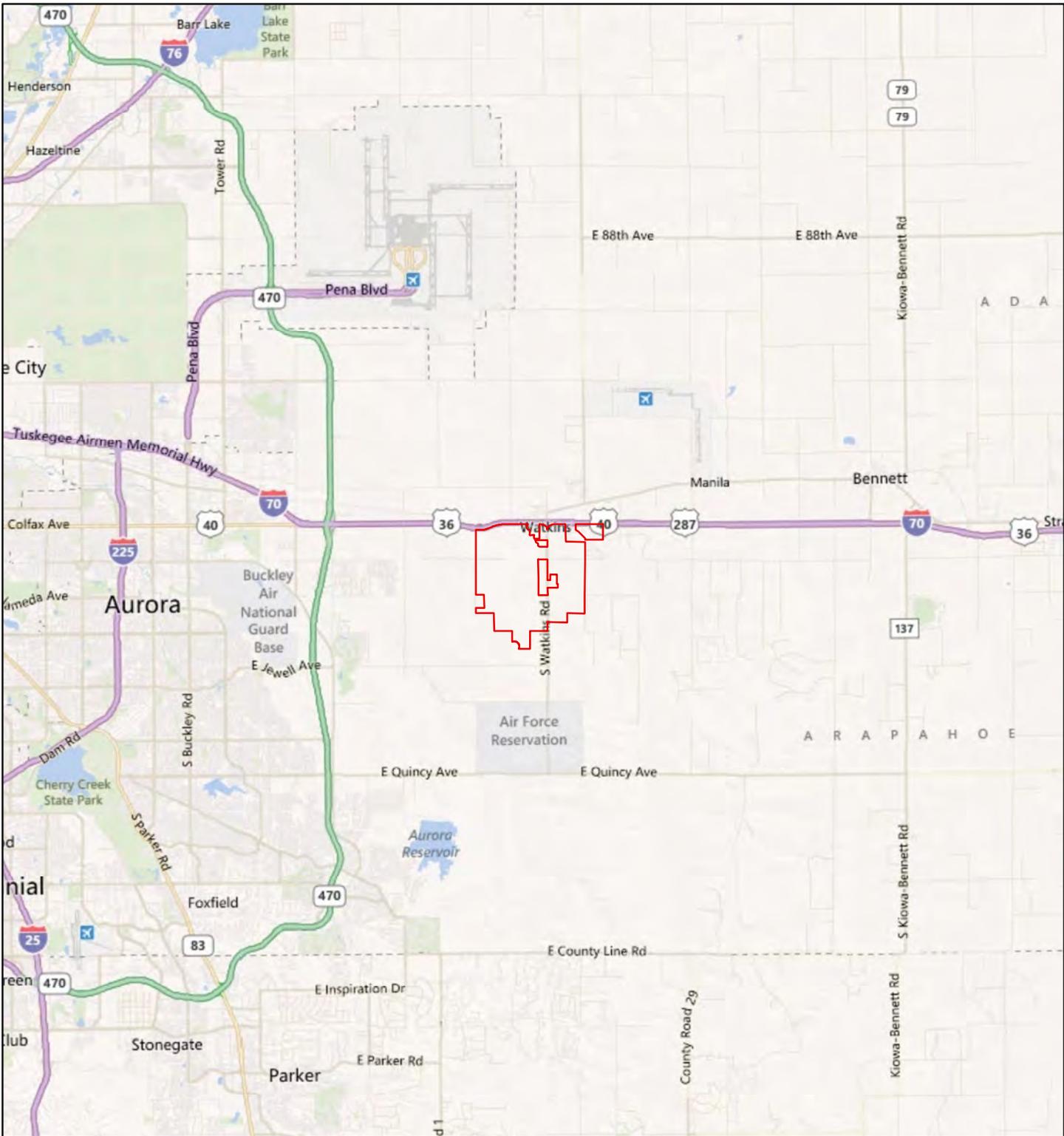
Since the project site occurs within the EPA's highest radon zone, mitigation for radon may have to be considered in designs of structures of human occupancy. On-site diagnostic radon tests may need to be conducted to determine the seriousness of radon gas at the site.

Since much of the site is composed of windblown sand and silt deposits that are susceptible to subsidence, primarily upon wetting, proper drainage design should be incorporated at the design stage to prevent water from ponding near and to divert water away from foundations, footings and roads. Site specific geotechnical studies would determine the severity of any potential subsidence concerns.

## **8.0 Conclusions**

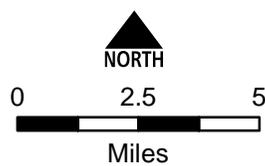
Potential geologic and other natural hazards that were identified in this analysis that may pose hazards to human life and safety and/or to property, include 1) potentially unstable slopes in relatively small areas of very steep terrace escarpments and unstable drainage channels, 2) the Fondis soil and some geologic strata may have severe shrink-swell potential, and 3) the potential accumulation of high radon levels inside structures of human occupancy. A hazard to water and air quality is soils throughout much of the project site with high water and wind erosion hazard. The severity of these potential hazards can be determined through on-site geotechnical and engineering studies and can be overcome with proper engineering designs, and/or avoidance in the case of severely swelling clays, and with the proper use of appropriate BMPs. Hazards from flooding, wildfire, and seismic activity are considered to be low at the project site.

9.0 Figures



**Legend**

 Boundary April 2012

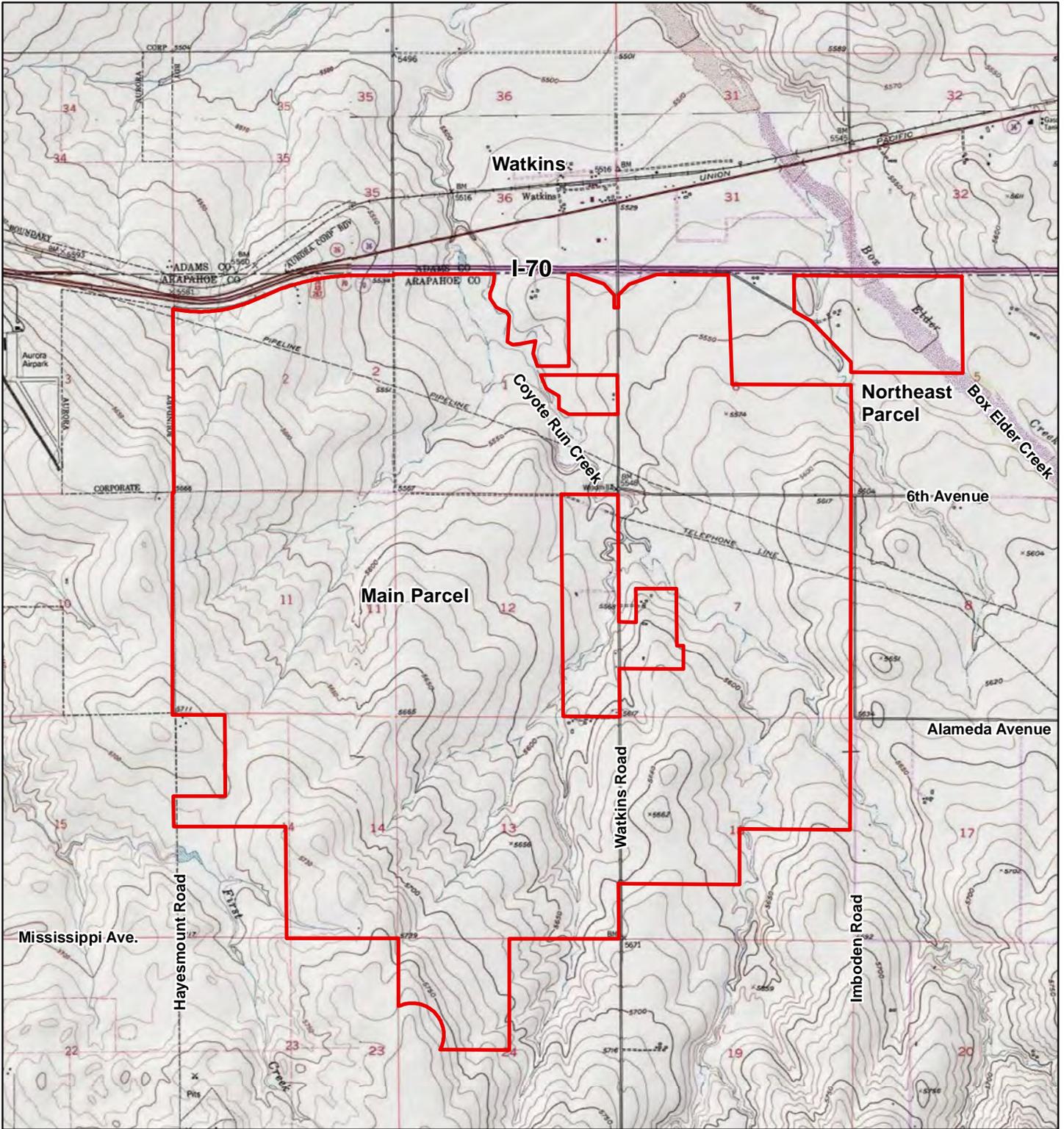


**Figure 1. Vicinity Map Prosper Project**

Date: April 2012

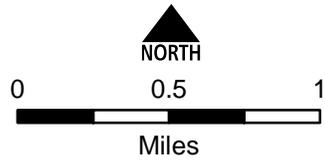


**Western Ecological Resource, Inc.**  
 711 Walnut Street, Boulder, CO 80302  
 (303) 449-9009



**Legend**

 Boundary April 2012



**Figure 2. Project Location Map  
Prosper Project**

Date: April 2012

 **Western Ecological Resource, Inc.**  
711 Walnut Street, Boulder, CO 80302  
(303) 449-9009

# PROSPER

PARCELS OF LAND SITUATED IN SECTIONS 5, 6, 7 & 18, T.4S., R.64W., AND SECTIONS 1, 2, 11, 12, 13, 14 & 24, T.4S., R.65W., OF THE 6TH P.M. COUNTY OF ARAPAHOE, STATE OF COLORADO ARAPAHOE COUNTY 1041 PERMIT

## LEGEND

### RIGHTS-OF-WAY

- Major Arterial
- Minor Arterial
- Boulevard
- Connector Road

### SCHOOLS & PARKS

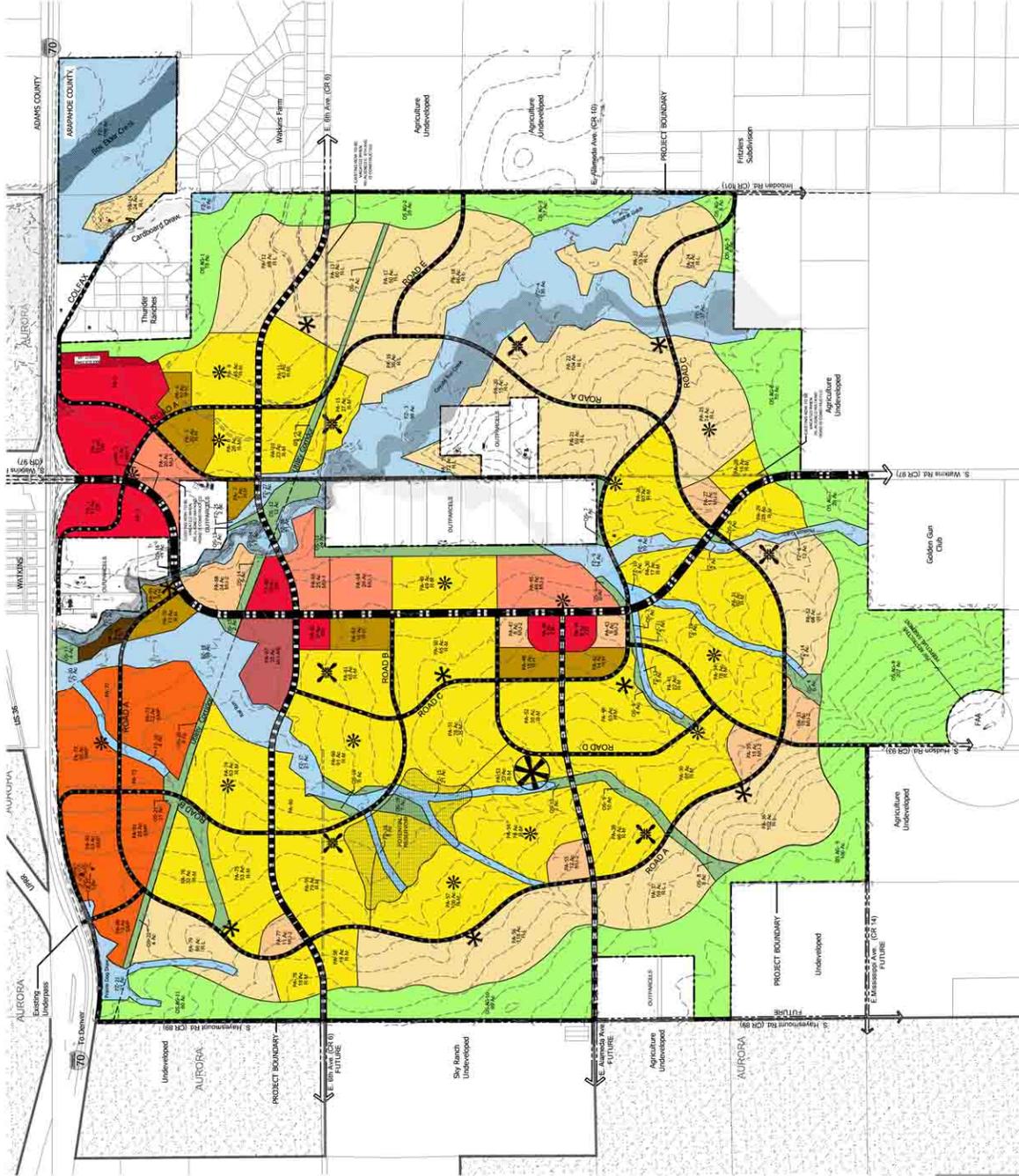
- School / Park
- Community Park
- Neighborhood Park
- Pocket Park

### WATERWAYS

- FEMA 100 Year Floodplain
- FEMA Floodway
- Potential Reservoir

### Land Use

Abbr.	Land Use
CR	Commercial/Retail
MU-1	Mixed Use Commercial
MU-2	Mixed Use Residential
MU-HE	Mixed Use (Medical / Educational / Campus)
EMP	Employment (Light Industrial/Flex/Office)
Residential	Residential
R-L	Low Density Residential
R-M	Medium Density Residential
R-H	High Density Residential
WWT	Waste Water Treatment
FZ	F-Zone (Floodplain)
OS	Open Space
OS-AG	Open Space - Agricultural

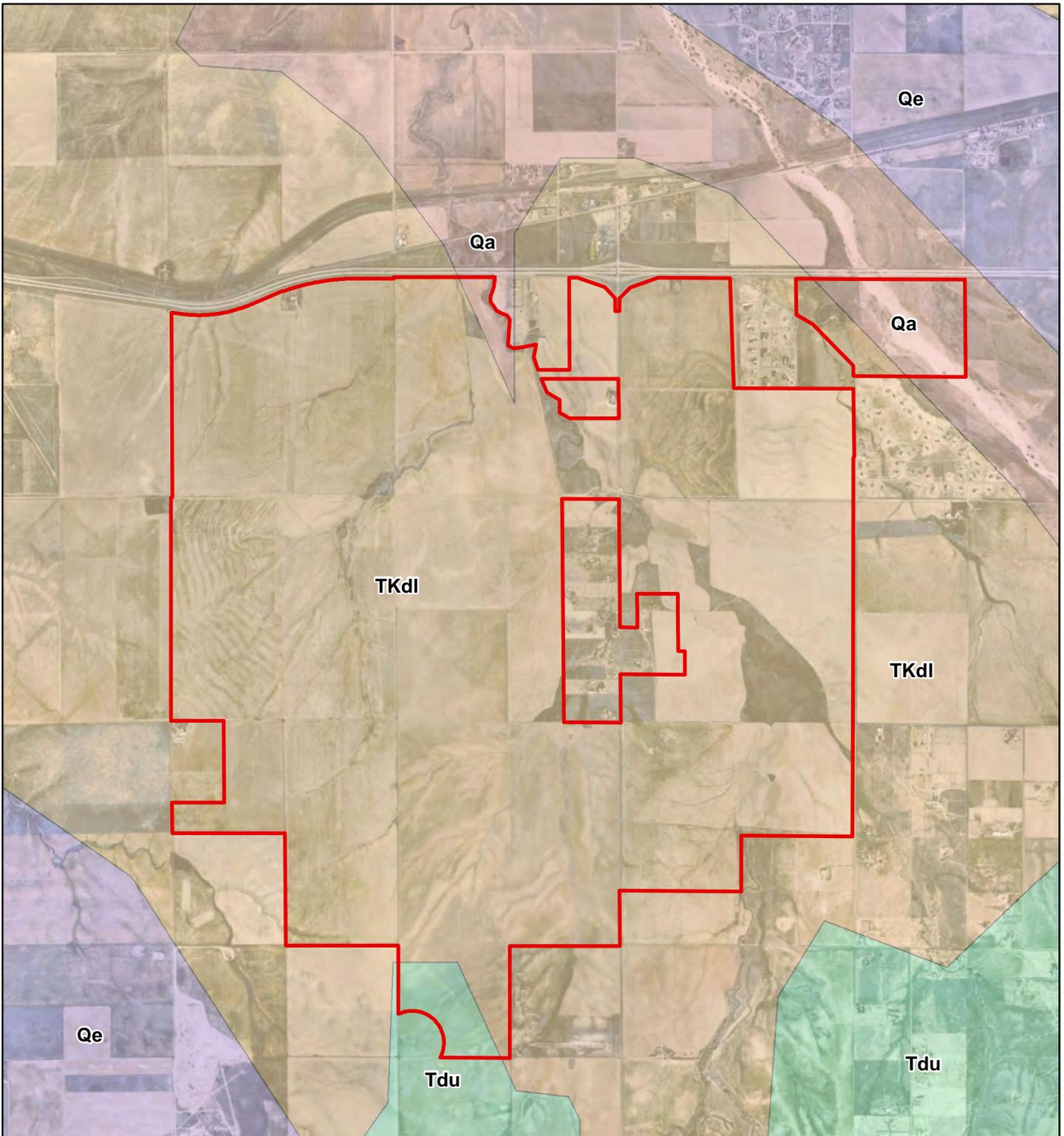


Scale: Date: JUNE 4, 2012  
 Revision: OCTOBER 19, 2012  
 Date: FEBRUARY 7, 2014  
 Date: JULY 9, 2013  
 Date: JUNE 20, 2014



**VOGEL & ASSOCIATES**  
 Denver, Colorado 80202-5566  
 (303) 993-4388

FIGURE 3: LAND DEVELOPMENT PLAN



**Legend**

 Project Boundary

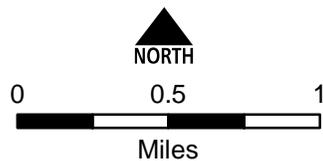
Geologic Map Units

 Qa - Modern Alluvium

 Qe - Eolian Deposits

 TKdl - Denver Formation or Lower Part of Dawson Arkose

 Tdu - Upper Part of Dawson Arkose



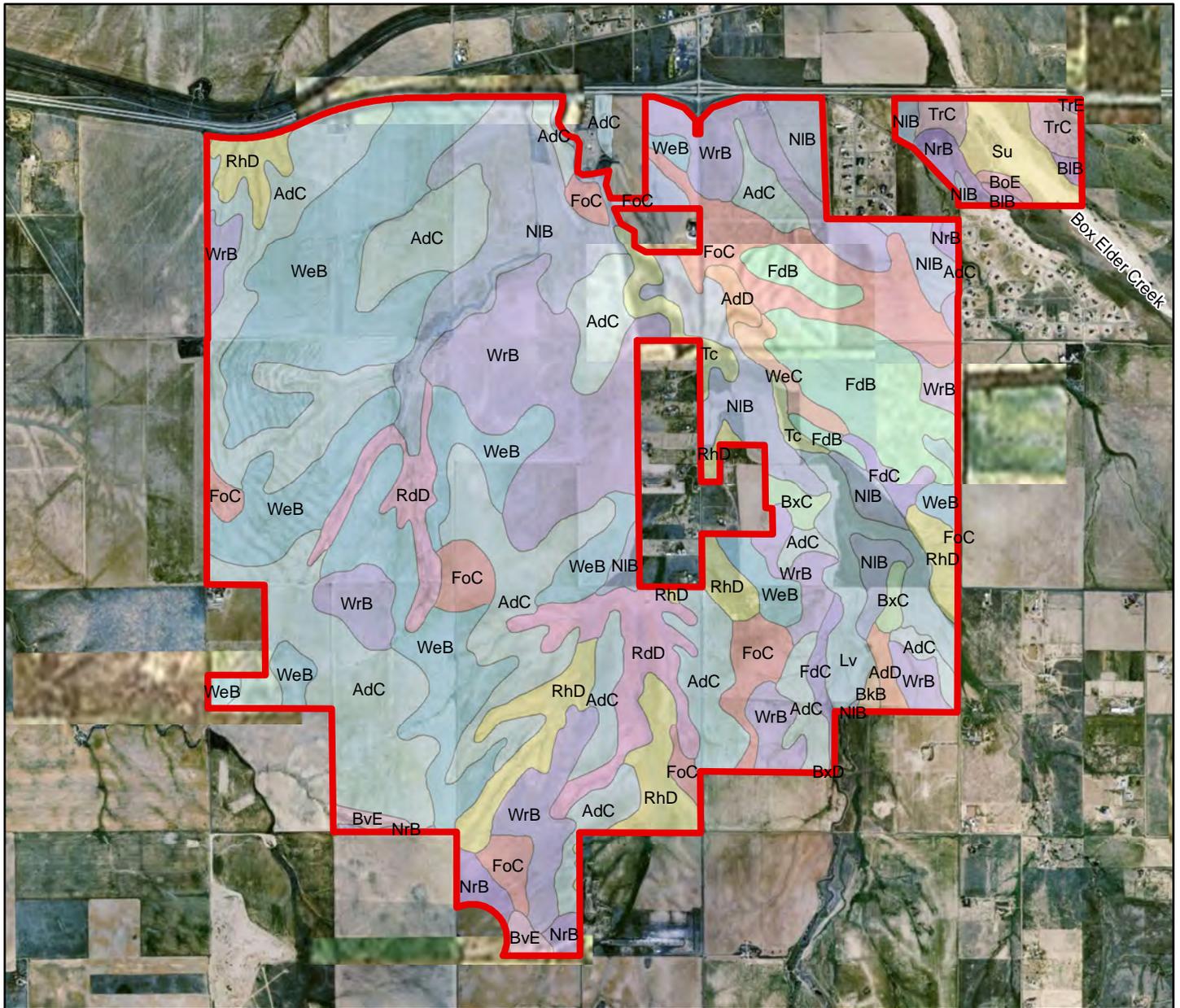
**Figure 4. Geology Map  
Prosper Project**

Date: April 2012



**Western Ecological Resource, Inc.**

711 Walnut Street, Boulder, CO 80302  
(303) 449-9009

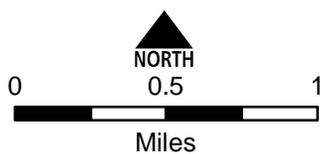


**Legend**

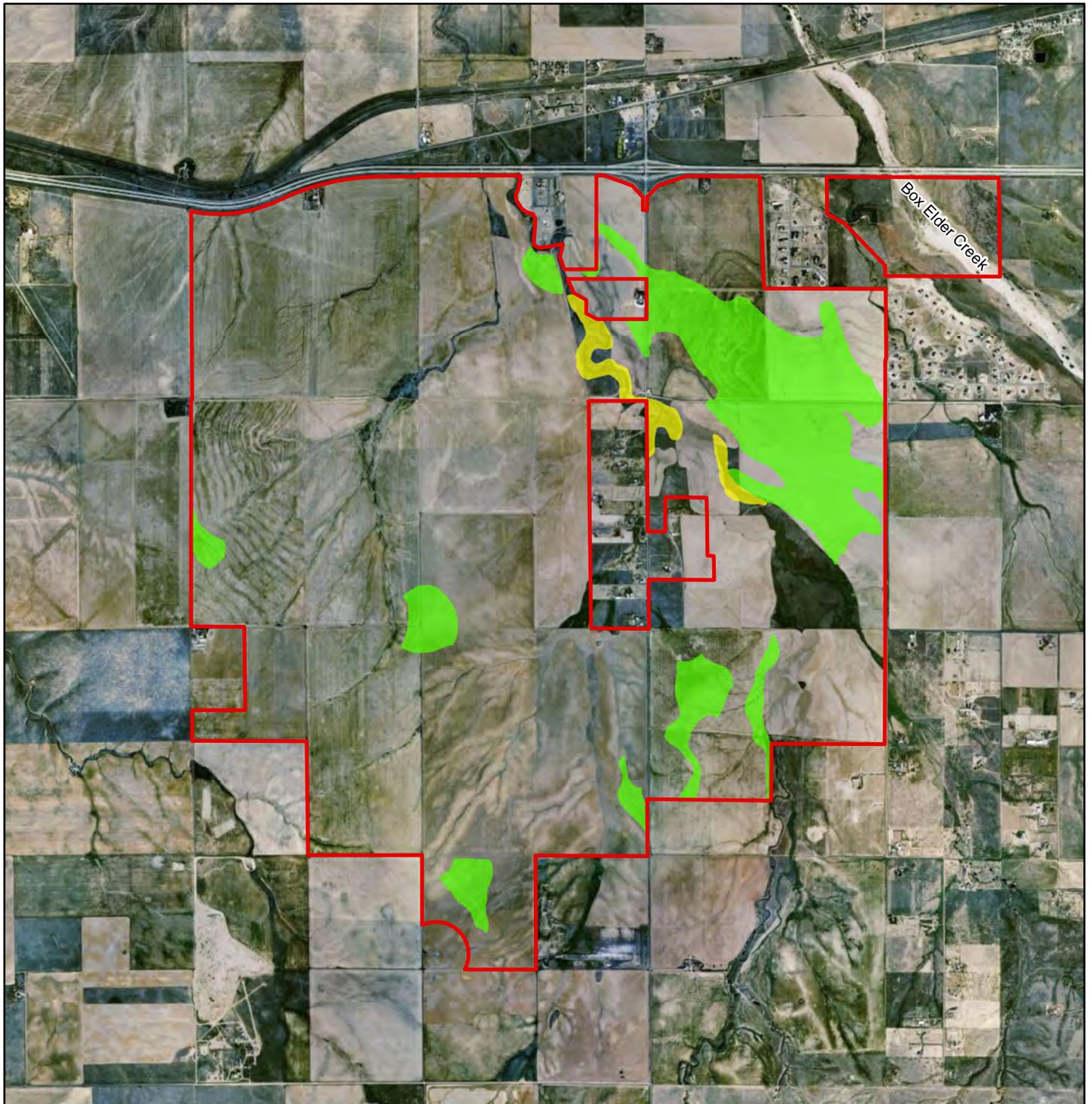
- Project Boundary
- AdC - Adena-Colby Silt Loams, 1-5 % slopes
- AdD - Adena-Colby Silt Loams, 5-9% slopes
- BkB - Beckton Loam, 0-3% slopes
- BIB - Bijou Sandy Loam, 0-3% slopes
- BoE - Blakeland Loamy Sand, 1-20% slopes
- BvE - Bresser-Tuckton Sandy Loam, 5-20% slopes
- BxC - Buick Loam, 3-5% slopes
- BxD - Buick Loam, 5-9% slopes
- FdB - Fondis Silt Loam, 1-3% slopes
- FdC - Fondis Silt Loam, 3-5% slopes
- FoC - Fondis-Colby Silt Loams, 3-5% slopes
- Lv - Loamy Alluvial Lands
- NIB - Nunn Loam, 0-3% slopes
- NrB - Nunn-Bresser-Ascalon Complex, 0-3% slopes
- RdD - Renohill Loam, 3-9% slopes
- RhD - Renohill-Buick Loams, 3-9% slopes
- Su - Sandy Alluvial Lands
- Tc - Terrace Escarpments
- TrC - Truckton Loamy Sand, 1-5% slopes
- TrE - Truckton Loamy Sand, 5-20% slopes
- WeB - Weld Fine Sandy Loam, 0-3% slopes
- WeC - Weld Fine Sandy Loam, 3-5% slopes
- WrB - Weld-Deertail Silt Loams, 0-3% slopes

**Figure 5. Soil Map Prosper Project**

Date: April 2012



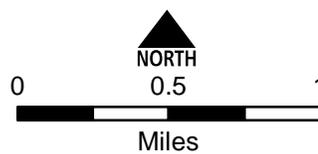
**Western Ecological Resource, Inc.**  
711 Walnut Street, Boulder, CO 80302  
(303) 449-9009



**Legend**

- Project Boundary
- Soils With Severe Shrink-Swell Potential
- Potentially Unstable Slopes

Note: Geology of the entire project area has high potential for radon and swelling clays.



**Figure 6. Geologic Hazard Map  
Prosper Project**

Date: April 2012



**Western Ecological Resource, Inc.**  
711 Walnut Street, Boulder, CO 80302  
(303) 449-9009

## 10.0 References

- Alden, A. 2012. Colorado Geologic Map, Northeast Quadrant. U.S. Geological Survey; Prepared in Cooperation with the Geological Survey of Colorado; Compiled from the Geologic Map of Colorado. Ogden Tweto. 1979. U.S. Geological Survey. Available at [http://geology.about.com/library/bl/maps/n\\_statemap\\_COne2600.htm](http://geology.about.com/library/bl/maps/n_statemap_COne2600.htm). Accessed March 23, 2012.
- Arapahoe County Board of Commissioners. 2006. Regulations Governing Areas and Activities of State Interest in Arapahoe County. 1041 Regulations. Arapahoe County, Colorado.
- Arapahoe County. 2010. Arapahoe County Grading, Erosion and Sediment Control Manual. Public Works and Development, Arapahoe County. Available at <http://co.arapahoe.co.us/Departments/PW/Engineering/GESC/GESC.asp>. Accessed March 23, 2012.
- Arapahoe County. 2011. Arapahoe County Land Development Code Book. Available at [http://www.co.arapahoe.co.us/Departments/PW/Planning/Land%20Development%20Code/land\\_development\\_code\\_toc.asp](http://www.co.arapahoe.co.us/Departments/PW/Planning/Land%20Development%20Code/land_development_code_toc.asp). Accessed March 23, 2012.
- Cappa, J.S., R.E. Garrison and D. May. 2003. Evaluation of Mineral and Mineral Fuel Potential of Adams, Arapahoe, and Denver Counties State Mineral Lands Administered by the Colorado State Land Board. Open-File Report 03-11. Colorado Geological Society, Division of Minerals and Geology, Department of Natural Resources. Denver, Colorado.
- Kirkham, R.M. and W.P. Rogers. 1981. Earthquake Potential in Colorado, a Preliminary Evaluation. Bulletin 43. Colorado Geological Survey, Department of Natural Resources. Denver, Colorado.
- Colorado Geological Survey. 1991. Results of the 1987-88 EPA Supported Radon Study in Colorado, with Discussion on Geology. Open-File Report 91-4. Colorado Geological Survey, Department of Natural Resources. Denver, Colorado.
- Colorado Oil and Gas Conservation Commission. 2012. Colorado Oil and Gas Information System. Available at <http://cogcc.state.co.us/cogis/FacilitySearch.asp>. Accessed March 27, 2012.
- Hanson, W.R. and E.J. Crosby. 1982. Environmental Geology of the Front Range Urban Corridor and Vicinity, Colorado. Geological Survey Professional Paper 1230. U.S. Department of Interior – Geological Survey. U.S. Government Printing Office, Washington.
- Hart, S.S. 1974. Potentially Swelling Soil and Rock in the Front Range Urban Corridor, Colorado. Environmental Geology 7. Colorado Geological Survey, Department of Natural Resources. Denver, Colorado.
- National Fire Protection Association (NFPA) -Technical Committee on Forest and Rural Fire Protection. 2008. Standard for Reducing Structure Ignition Hazards from Wildland Fires. NFPA.
- Raynolds, R.G., K.R. Johnson, B. Ellis and M. Dechesne. 2012. The Denver Basin. Available at <http://www.savecorralbluffs.com/geology.html>. Accessed March 23, 2012.
- Roberts, S.B. 2007. Coal in the Front Range Urban Corridor – An Overview of Coal Geology, Coal Production, and Coal-Bed Methane Potential in Selected Areas of the Denver Basin, Colorado, and the Potential Effects of Historical Coal Mining on Development and Land-Use Planning. Chapter 3 *in*: Petroleum Systems and Assessment of Undiscovered Oil and

Gas in the Denver Basin Province, Colorado, Kansas, Nebraska, South Dakota and Wyoming. U.S. Geological Survey Province 39. U.S. Department of Interior – U.S. Geological Survey, Reston, Virginia.

- Rogers, W.P., et al. 1974. Guidelines and Criteria for Identification and Land-Use Controls of Geologic Hazard and Mineral Resources Areas. Special Publication 6. Colorado Geological Survey, Department of Natural Resources. Denver, Colorado.
- Rosgen, D. 1996. Applied River Morphology. Printed Media Company. Minneapolis, Minnesota.
- Schwochow, S.D., R.R. Shroba and P.C. Wicklein. 1974. Sand, Gravel, and Quarry Aggregate Resources, Colorado Front Range Counties. Special Publication 5-A. Colorado Geological Survey, Department of Natural Resources. Denver, Colorado.
- U.S. Department of Agriculture (USDA)-Rural Development. 2006. Seismic Safety Requirements for New Building Construction and Substantial Rehabilitation Using Rural Housing Service (RHS), Rural Business – Cooperative Service (RBS), and Rural Utilities Service (RUS) Loan, Grant, and Guaranteed Funds. Architectural Technical Guide 0005. USDA.
- U.S. Department of Agriculture (USDA) – Soil Survey Division Staff. 1993. Soil Survey Manual. USDA Handbook No. 18. USDA.
- U.S. Department of Agriculture – Soil Conservation Service (USDA-SCS). 1971. Soil Survey of Arapahoe County. USDA-SCS.
- U.S. Environmental Protection Agency (EPA). 1993. EPA's Map of Radon Zones: Colorado. (6604) 402-R-93-02S. Radon Division Office of Radiation and Indoor Air. U.S. EPA.
- U.S. Environmental Protection Agency (EPA). 2012. Radon Health Risks. Available at [www.epa.gov/radon/healthrisks](http://www.epa.gov/radon/healthrisks). Accessed March 23, 2012.

## Nuisances

- Description of Nuisances Caused by the Project and Nuisances Affecting the Project



13

NUISANCES

**PROSPER**

A new community with an optimistic spirit  
where one can flourish, thrive and succeed

## 13. Nuisances

Prosper is planned and designed to avoid or mitigate any potential nuisances. Considerations with regards to land use, transportation, environmental impacts, cultural and economic implications have been addressed as part of the planning and 1041 process.

### Land Use

Land uses are proposed that will be compatible with adjacent uses and facilities. Non-residential land uses have been located along Interstate 70 and the Watkins Road interchange to maximize economic potential while also reducing potential noise impacts. Large contiguous areas of open space have been located around the perimeter of Prosper providing a buffer to adjacent agricultural and rural residential areas. Lower residential densities have been located along the perimeter open space areas providing an appropriate transition to adjacent land uses. Existing drainage corridors and flood plain boundaries are to be preserved in their existing state and modified as required for transportation and other infrastructure requirements. Modifications to the FEMA floodplain will be done in compliance with Federal, State and County requirements.

### Transportation

A comprehensive transportation plan has been prepared for Prosper that is consistent with the Arapahoe County 2035 plan. This transportation plan includes major north/south (Watkins Road) and east/west (E. 6<sup>th</sup> Avenue) connections as proposed in the Arapahoe County 2035 Transportation Plan. The plan also includes phased improvements to the existing Watkins Road and Interstate 70 interchange. These major transportation components in conjunction with other improvements will ensure that Prosper operates at an acceptable level of service while also providing regional connections for eastern Arapahoe County.

Prosper is master planned to include a network of connected streets which will disperse traffic and encourage community connectivity. Walkable streets and a comprehensive trails system will also provide alternative transportation choices.

### Environmental

A comprehensive environmental analysis has been completed for Prosper. Prosper incorporates an "Avoidance" approach to ensure that natural drainage ways and riparian zones remain in their existing state with minimal disturbance. Land use planning areas have been planned to respect existing drainage corridors and floodplain boundaries.

A sustainable water supply plan has been prepared to minimize impacts to existing Denver Basin aquifers and adjacent residential wells. This sustainable water supply plan incorporates a reuse system and conservation practices.

Surface and storm water shall comply with all State, County and Urban Drainage & Flood Control District standards and practices. Prosper includes a master drainage plan that includes appropriate storm water, water quality and conveyance facilities. Applicable Best Management Practices will be incorporated into each phase of the project to reduce erosion or siltation within and adjacent to Prosper.

Prosper will comply with all Environmental Protection Agency, Colorado and Arapahoe County air pollution regulations and standards.

## **Cultural and Historical**

An archaeological and cultural survey for the Prosper property was conducted by the Colorado Historical Society. The property does not include any cultural resources that are eligible to be listed on the National Register of Historic Places.

The Colorado Historical Society search outlines eight (8) sites and five (5) surveys that have been conducted within and adjacent to the Prosper property. These sites are located in the northeast corner of Section 6 and the northwest corner of Section 5 within the Box Elder Creek corridor. This corridor is to be preserved with no proposed development with the exception of permitted recreational land uses.

## **Economic**

Prosper is master planned as a large scale mixed use community that will serve as a regional employment and economic generator. Land uses include regional commercial/retail, community commercial/retail, neighborhood commercial/retail and a large regional employment center that will accommodate a variety of corporate office, research and development, light industrial and distribution uses. Other employment generating land uses include education and medical.

Arapahoe County projects that growth and economic development is to initially occur within the western area of the I-70 corridor. Prosper is positioned and master planned to accommodate large and small scale commercial and retail users. Prosper is estimated to generate approximately 24,573 jobs.

## **Noise**

Prosper is located outside of the Front Range Airport influence area. A portion of the property located west of Watkins Road is located within the Denver International Airport influence area. An aviation easement will be executed for the area located within the airport influence area.

Adverse noise impacts have also been reduced by locating non-residential land uses adjacent to Interstate 70. Commercial and employment related land uses have been located along Interstate 70 to maximize visibility and provide serve as a buffer to the residential land uses and planning areas to the south.

## **Cultural and Historical**

An archeological and cultural survey for the Prosper property was conducted by the Colorado Historical Society. The property does not include any cultural resources that are eligible to be listed on the National Register of Historic Places.

The Colorado Historical Society search outlines eight sites and five surveys that have been conducted within and adjacent to the Prosper property. These sites are located in the northeast corner of section of Section 6 and the northwest corner of Section 5 within the Box Elder Creek corridor. This corridor is to be preserved with no proposed development.

## **Economic**

Prosper is master planned as a large scale mixed use community that will serve as a regional employment and economic generator. Land uses include regional commercial/retail, community commercial/retail, neighborhood commercial/retail and a large regional employment center that will accommodate a variety of corporate office, research and development, light industrial and distribution uses. Other employment generating land uses include education and medical.

Arapahoe County projects that growth and economic development is to initially occur within the western area of the I-70 corridor. Prosper is positioned and master planned to accommodate large and small scale commercial and retail users. Prosper is estimated to generate approximately 24,573 jobs.

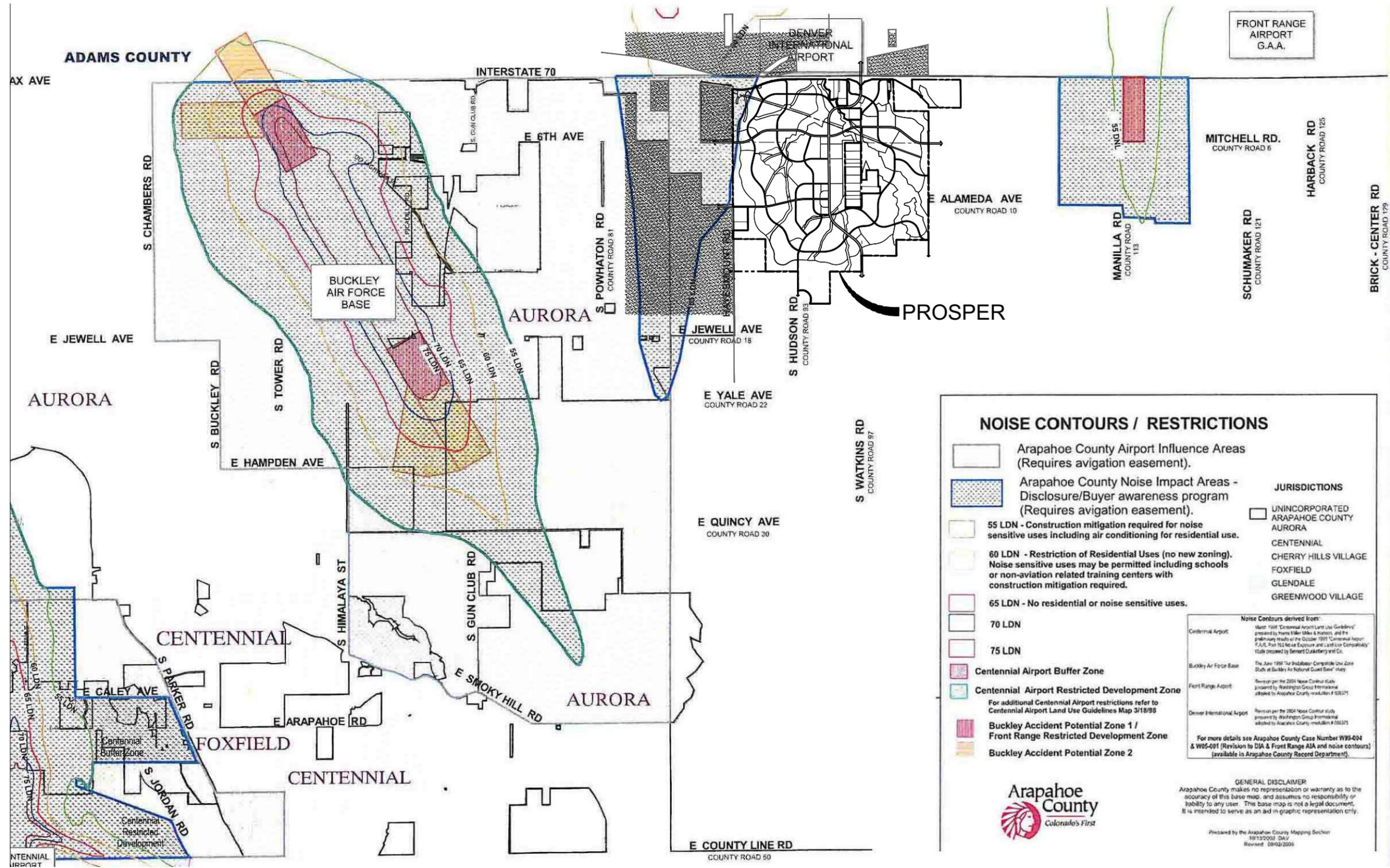
### **Airport Influence Area**

The northwestern portion of Prosper within section 2 is located within the Denver International Airport Influence zone 55 LDN designation. Non-residential land uses including the open space and agricultural district are located within the 55 LDN zone. Prosper is located outside of the Front Ranch Airport Noise Impact area. As required, applicable noise mitigation measures will be incorporated for the respective structures located within the airport influence area.

THIS PAGE INTENTIONALLY LEFT BLANK

# PROSPER

PARCELS OF LAND SITUATED IN SECTIONS 5, 6, 7 & 18, T.4S., R.64W.,  
AND SECTIONS 1, 2, 11, 12, 13, 14 & 24, T.4S., R.65W., OF THE 6TH P.M.  
COUNTY OF ARAPAHOE, STATE OF COLORADO  
ARAPAHOE COUNTY 1041 PERMIT  
EXHIBIT 13.2 -AIRPORT INFLUENCE



### NOISE CONTOURS / RESTRICTIONS

- Arapahoe County Airport Influence Areas (Requires aviation easement).
- Arapahoe County Noise Impact Areas - Disclosure/Buyer awareness program (Requires aviation easement).
- 55 LDN - Construction mitigation required for noise sensitive uses including air conditioning for residential use.
- 60 LDN - Restriction of Residential Uses (no new zoning). Noise sensitive uses may be permitted including schools or non-aviation related training centers with construction mitigation required.
- 65 LDN - No residential or noise sensitive uses.
- 70 LDN
- 75 LDN
- Centennial Airport Buffer Zone
- Centennial Airport Restricted Development Zone
- Buckley Accident Potential Zone 1 / Front Range Restricted Development Zone
- Buckley Accident Potential Zone 2

**JURISDICTIONS**

- UNINCORPORATED ARAPAHOE COUNTY AURORA
- CENTENNIAL
- CHERRY HILLS VILLAGE
- FOXFIELD
- GLENDALE
- GREENWOOD VILLAGE

**Noise Contours derived from:**

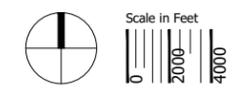
- Centennial Airport: Master Plan "Centennial Airport Land Use Guidelines" prepared by Harris Miller Miller & Hanson, and the preliminary results of the October 1997 "Centennial Airport F.A.S. Part 152 Noise Exposure and Land Use Compatibility Study" prepared by Bennett Durkin Berg and Co.
- Buckley Air Force Base: The June 1986 "Air Pollution: Composite Use Zone Study at Buckley Air National Guard Base" study.
- Front Range Airport: Revision per the 2004 Noise Contour Study prepared by Washington Group International, submitted to Arapahoe County resolution # 080375.
- Denver International Airport: Revision per the 2004 Noise Contour study prepared by Washington Group International, submitted to Arapahoe County resolution # 080375.

For more details see Arapahoe County Case Number W98-004 & W95-001 (Revision to DIA & Front Range AIA and noise contours) (available in Arapahoe County Record Department).

**GENERAL DISCLAIMER**  
Arapahoe County makes no representation or warranty as to the accuracy of this base map, and assumes no responsibility or liability to any user. This base map is not a legal document. It is intended to serve as an aid in graphic representation only.

Prepared by the Arapahoe County Mapping Section  
10/13/2009 DBM  
Revised: 09/02/2009

**VOGEL & ASSOCIATES**  
475 W. 12th Avenue - Suite E  
Denver, Colorado 80204-3688  
(303) 893-4288



Scale: 1"=4000'

Date: JUNE 4, 2012

Revision Date:	OCTOBER 19, 2012
	JULY 9, 2013
	FEBRUARY 7, 2014
	JUNE 20, 2014
	OCTOBER 20, 2014

5 OF 5

## Areas of Cultural Importance

- Description of Paleontological, Historic, or Archaeological Interest
- Impacts on Paleontological, Historic, or Archaeological Sites



14

AREAS OF CULTURAL IMPORTANCE

**PROSPER**

A new community with an optimistic spirit  
where one can flourish, thrive and succeed

## 14. Areas of Cultural Importance

An archaeological and cultural survey for the Prosper property was conducted by the Colorado Historical Society. The property does not include any cultural resources that are eligible to be listed on the National Register of Historic Places.

The following Colorado Historical Society search outlines eight (8) sites and five (5) surveys that have been conducted within and adjacent to the Prosper property. These sites are located in the northeast corner of Section 6 and the northwest corner of Section 5 within the Box Elder Creek corridor.

As outlined on the following search matrix, the sites are designated as "Field not Eligible" and are not eligible to be listed on the National Register of Historic Places. This designation or assessment does not require that avoidance or mitigation procedures be implemented.

THIS PAGE INTENTIONALLY LEFT BLANK

**COLORADO HISTORICAL SOCIETY**  
**Office of Archaeology and Historic Preservation**  
**1200 Broadway, Denver, Colorado 80203**

Mr. Jeff Vogel  
Vogel & Associates  
475 W. 12th Ave., Suite F  
Denver, CO 80204

May 23, 2012

Re: Prosper  
File Search No. 17055

At your request, the Office of Archaeology and Historic Preservation has conducted a search of the Colorado Inventory of Cultural Resources within the property boundaries shown on provided map, located in the following area:

PM	T	R	S
6th	4S	64W'	5 6 7 8 18
6th	4S	65W'	1 2 11 12 13 14 24

8 sites and 5 surveys were located in the designated area(s).

If information on sites in the project area was found, detailed information follows the summary. If no sites or districts were found, but surveys are known to have been conducted in the project area, survey information follows the summary. We do not have complete information on surveys conducted in Colorado, and our site files cannot be considered complete because most of the state has not been surveyed for cultural resources. There is the possibility that as yet unidentified cultural resources exist within the proposed impact area.

Therefore, in the event there is Federal or State involvement, we recommend that a professional survey be conducted to identify any cultural resources in the project area, which are eligible to be listed in the National Register of Historic Places. We look forward to consulting with you regarding the effect of the proposed project on any eligible cultural resource in accordance with the Advisory Council on Historic Preservation Procedures and the Preservation and Protection of Historic and Cultural Resources (36 CFR 800). Please provide this office with the results of the cultural resource survey for our review of professional adequacy and compliance with regulations.

If you have any questions, please contact the Office of Archaeology and Historic Preservation at (303) 866-3395 or 3392.

Thank you for your interest in Colorado's cultural heritage.

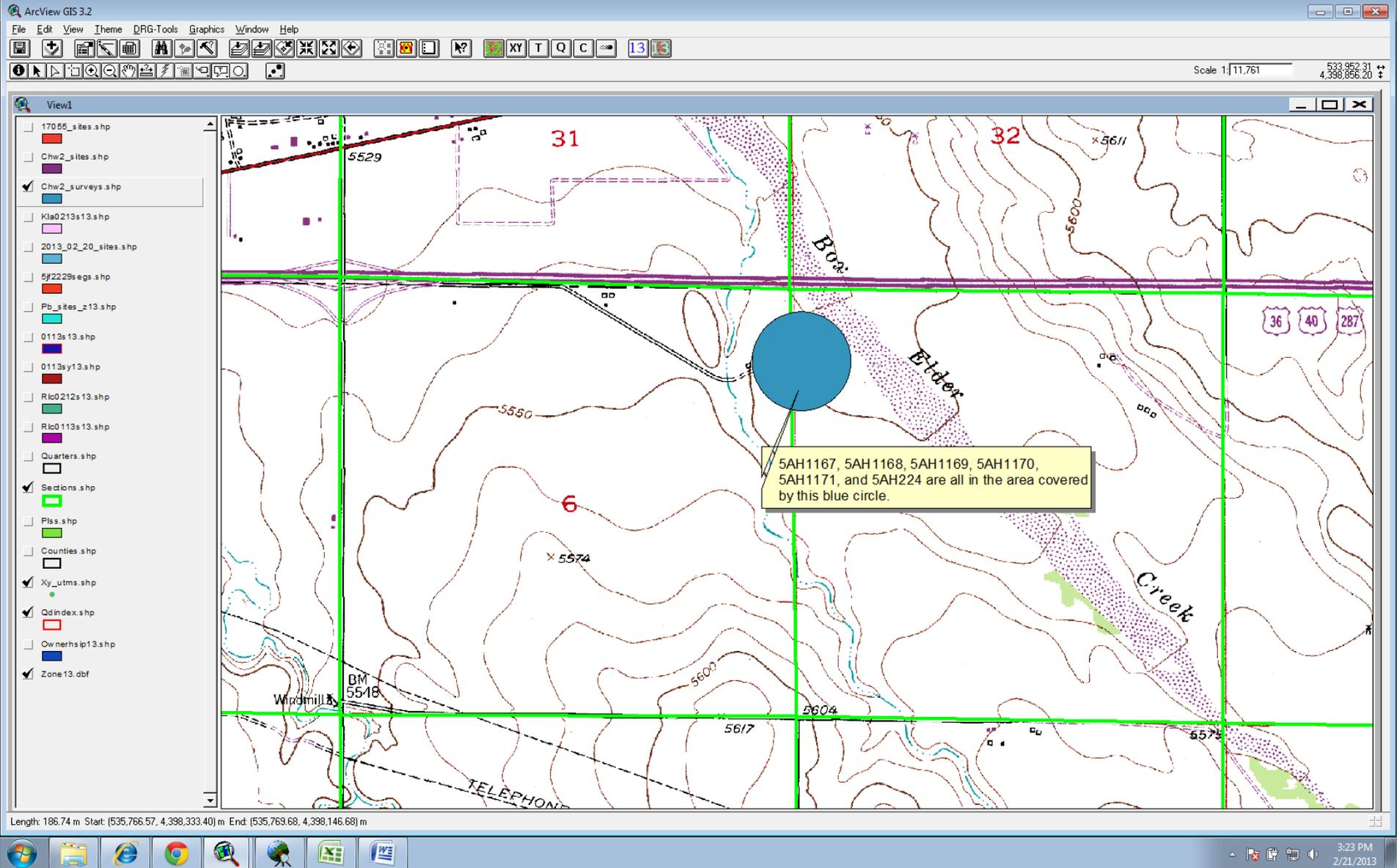
Richard Wilshusen  
Deputy State Historic Preservation Officer for Archaeology  
State Archaeologist

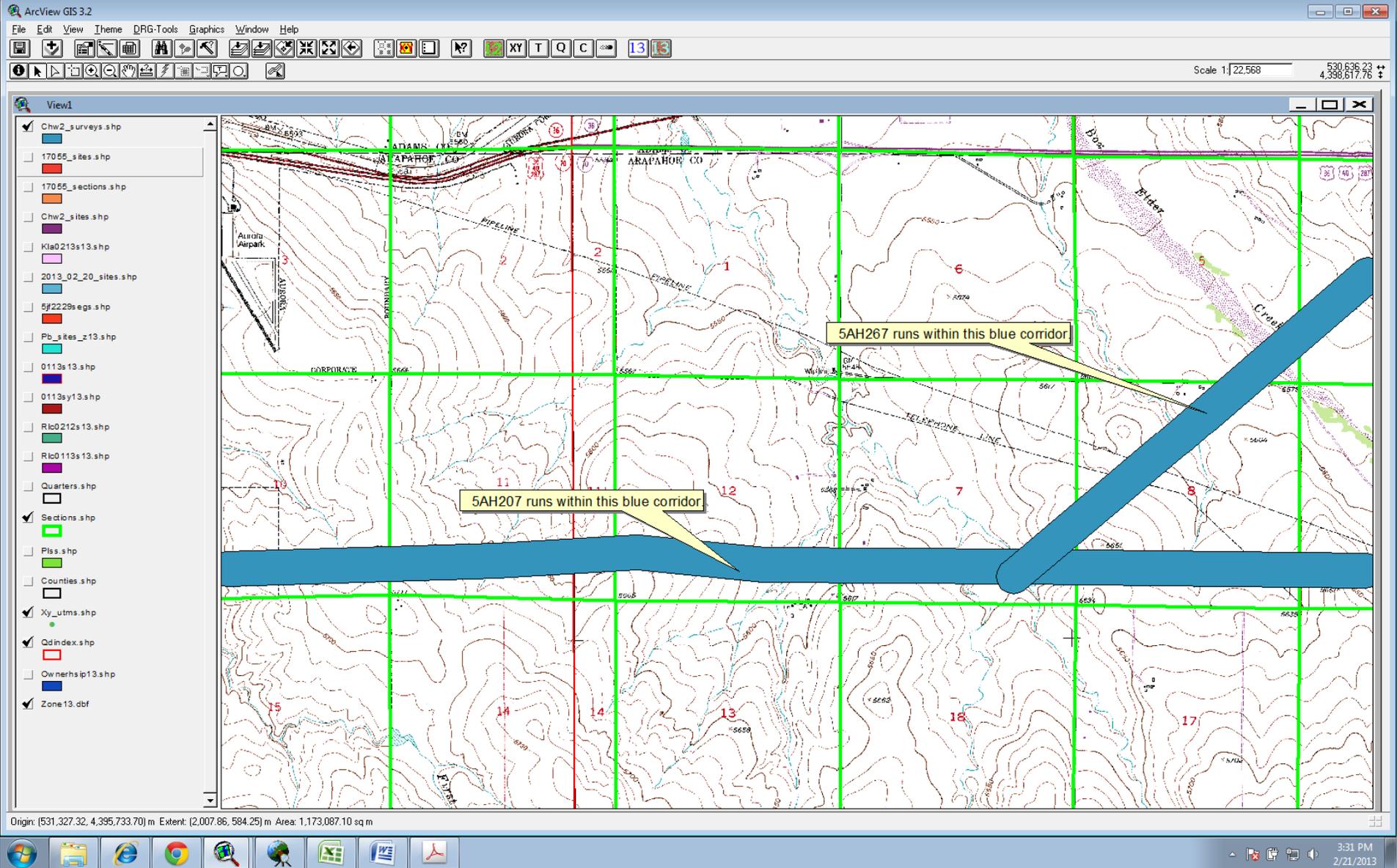
Kevin Black  
Assistant State Archaeologist

\*Information regarding significant archaeological resources is excluded from the Freedom of Information Act. Therefore, legal locations of these resources must not be included in documents for public distribution.

17055\_s/17055\_sy

ID	NAME	RESOURCE.TYPE	ADDRESS	ASSESS	ASS.DATE	ORG	REC.DATE	COND	CON.DATE
5AH.1167		Archaeological		Field not eligible	8/19/1997	Colorado Department of Transportation (CDOT)	8/19/1997		
5AH.1168		Archaeological		Field not eligible	8/19/1997	Colorado Department of Transportation (CDOT)	8/19/1997		
5AH.1169		Archaeological		Field not eligible	8/19/1997	Colorado Department of Transportation (CDOT)	8/19/1997		
5AH.1170		Archaeological		Field not eligible	8/19/1997	Colorado Department of Transportation (CDOT)	8/19/1997		
5AH.1171		Archaeological		Field not eligible	8/19/1997	Colorado Department of Transportation (CDOT)	8/19/1997		
5AH.207	SMOKY HILL TRAIL - NORTHERN BRANCH	Historical Archaeology>Historic		Field not eligible	11/12/1982	Colorado Preservation Office	11/12/1982	Total Disturbance	11/12/1982
5AH.224	BOX ELDER STAGE STATION SITE	Historical Archaeology		Field not eligible	6/29/1982	Colorado Preservation Office	6/29/1982	Destroyed	6/29/1982
5AH.267	FORT MORGAN CUTOFF	Historical Archaeology>Historic		Field not eligible	11/12/1982	Colorado Preservation Office	11/12/1982	Total Disturbance	11/12/1982





## Hazardous Materials

- Description of Hazardous Materials
- Location of Storage Areas and Spill Containment Measures



15

HAZARDOUS MATERIALS

**PROSPER**

A new community with an optimistic spirit  
where one can flourish, thrive and succeed

## 15. Hazardous Materials

The Prosper property currently does not contain any land uses or facilities that would result in the release of hazardous materials. Land uses are proposed for Prosper that may contain hazardous materials such as fuel stations, medical facilities and light manufacturing facilities. Solid or hazardous waste facilities or sites are not proposed within Prosper.

Proposed land uses within Prosper that may include hazardous materials shall comply with Federal and State handling, storage, disposal and transportation requirements. Waste and minimization standards and practices shall be utilized for all hazardous materials. Land uses or facilities that may contain hazardous waste material shall include spill prevention and response plans.

THIS PAGE INTENTIONALLY LEFT BLANK

## Balance of Benefits and Losses

- Opportunities to Develop Existing Resources in the County
- Foreseeable Losses of Existing Resources in the County



16

## BALANCE OF BENEFITS AND LOSSES

**PROSPER**  
A new community with an optimistic spirit  
where one can flourish, thrive and succeed

## 16. Balance of Benefits and Losses

Prosper is consistent with the Arapahoe County Comprehensive Plan and will advance the vision and principles outlined in the plan. These principles encourage the creation of safe and attractive neighborhoods, compatible land use patterns and the creation of a diversity of housing types. It is encouraged that resource conservation and environmental quality considerations be incorporated within growth patterns. Employment generation for a diverse population is also a consideration as growth occurs in the County.

Prosper is master planned as a “balanced” mixed use community that will include a variety of commercial, employment, civic and residential land uses. Providing a mix of land uses that can serve as an employment center and provide housing for a multi-income and multi-generational population is the highest and best use for the property. Prosper is estimated to generate approximately 24,573 jobs.

Approximately 1,601 acres is to be preserved for open space and for continued agricultural purposes. This open space plan includes the conservation of the Box Elder Creek and Coyote Run drainage and riparian corridors. These open space corridors can accommodate a variety of recreational uses and serve as regional trail linkages.

While Prosper is currently utilized for predominantly agricultural purposes, the proposed land use components, diversity of housing, recreational and employment opportunities will provide significant benefits to the County and citizens. The large contiguous open area located on the perimeter of Prosper will continue to be utilized for agriculture, recreation and conservation.

Prosper does not currently propose the extraction of aggregates. Should the extraction of aggregates be proposed, provisions and requirements outlined in Section 12-104 of the Arapahoe County Development Code shall apply. Extraction of aggregates shall also comply with the State of Colorado regulations outlined in 34-1-301 CRS.

With regards financial resources, a fiscal impact analysis has been prepared for Prosper illustrating a positive net effect for the County and its citizens.

Arapahoe County currently includes approximately 384,789 acres of agricultural land. The Prosper project is 5,130 acres and represents approximately 1.3 percent of the total agricultural land within Arapahoe County. The Prosper property is currently being utilized for agricultural uses and specifically dry land wheat farming. Some ranching has occurred within the Box Elder Creek and Coyote Run corridors.

Approximately 1,601 acres are to remain as open space which may be used for recreation, agriculture or conservation purposes. A minimum of 80% of the contiguous open space area that is located along the perimeter of the project will continue to be utilized for agricultural purposes. The perimeter contiguous open area equates to approximately 762 acres.

Maintaining an agricultural component within Prosper serves a functional need with regards to producing food and also reinforces the rural character of the community. The Prosper agricultural component will include dryland farming. Community and neighborhood gardens will be permitted and may also be integrated with the comprehensive parks program.

Please see Section 6, Financial Feasibility Plan, for additional fiscal benefits.

In summary, the Prosper project will not significantly diminish the agricultural activities in the County or region. Furthermore, the intent is to continue to utilize a portion of the property for continued agricultural use.

THIS PAGE INTENTIONALLY LEFT BLANK

## Monitoring and Mitigation Plan

- Description of All Mitigation
- Methodology Used to Measure Impacts and Effectiveness of Mitigation
- Monitoring Methodology



17

Monitoring and Mitigation Plan

**PROSPER**  
A new community with an optimistic spirit  
where one can flourish, thrive and succeed

## 17. Monitoring and Mitigation Plan

The Prosper property is comprised of predominantly sandy soils. These soils are well drained and will require that erosion mitigation procedures be implemented. The enclosed environmental impact analysis provides additional details regarding the soil composition.

As outlined in the enclosed environmental impact analysis, the predominant wildlife habitat area is located within the Box Elder Creek corridor. This area includes two hawk nests and an owl nest. A coyote den was also identified within the Box Elder Creek corridor. A hawk nest is located in Section 6 south of I-70.

The Box Elder Creek corridor and associated 100-year floodplain is proposed to remain as open space minimizing potential impacts. Any potential disturbance to these areas will comply with the mitigation procedures outlined in the analysis.

Three small potential wetland areas are identified within the Coyote Run basin. The intent is to preserve the Coyote Run corridor and potential wetland areas to the extent practicable. Mitigation procedures will be implemented should any disturbance be required.

A majority of the Prosper property has been utilized for dry land wheat farming. There is very limited vegetation with regard to trees. Existing trees are predominately located along Box Elder Creek with isolated massings located within the Coyote Run corridor.

Other considerations related to ground water, air and noise are also evaluated within the report. The analysis concludes that Prosper will not adversely impact ground water since the intent is to utilize a renewable and reusable water supply system for 75% of the total water required.

With regards to ambient air quality, the Prosper property is located within the Front Range monitoring system with the closest monitor located five miles south of the site. The monitor has been collecting data for less than three years and does not show any violations with Ambient Air Quality Standards. Prosper shall comply with all Colorado Ambient Air Quality Standards.

Air quality impacts would result from airborne particulates (fugitive dust) arising from earthwork during site preparation and construction. Fugitive dust and emissions resulting from construction activities proposed for the project site would be intermittent, and would not be expected to exceed ambient air quality standards or substantially impact regional air quality attainment status or progress. Prosper will be subject to the standards of a Fugitive Dust Control Plan.

Colorado air pollution regulations also address stationary sources of air pollution. The only stationary source of air pollution proposed is the waste water treatment plant. Emissions from the waste water treatment plant shall comply with Colorado and air pollution permitting regulations. Colorado air pollution regulations in conjunction with Arapahoe County regulations, will adequately address any pollution conditions and controls regarding the waste water treatment plant.

Prosper is located outside of the Front Range Airport influence area. A portion of the property located west of Watkins Road is located within the Denver International Airport influence area. An aviation easement will be executed for the area located within the airport influence area.

Adverse noise impacts have also been reduced by locating non-residential land uses adjacent to Interstate 70. Commercial and employment related land uses have been located along Interstate 70 to maximize visibility and serve as a buffer to the residential land uses and planning areas.

Prosper will implement a waterwise certification program for all residential and non-residential projects to minimize indoor and outdoor water use. High efficiency fixtures and appliances will be required for each project within Prosper. The high efficiency components will include model specifications for all residential toilets, washing machines, dishwashers, kitchen and bath faucets and showerheads. Commercial installation equipment will also have to include high efficiency standards as determined for each project.

Prosper will contract with respective builders and developers to ensure that the certification program is implemented as each phase of the project is constructed. Builders will be required to achieve minimum efficiency standards that are to be prescribed for specific uses and associated outdoor uses.

The Prosper Water Conservation plan will include a monitoring and evaluation program. Technology and staff will be utilized to evaluate indoor and outdoor water consumption to ensure efficiency objectives are being achieved. This program will include making required recommendations and revisions to increase efficiency and conservation for specific applications.

A comprehensive environmental impact analysis has been prepared for Prosper. The report identifies wildlife habitat in the Box Elder Creek corridor which is being preserved as part of the master plan. Any required disturbance to wildlife habitats or other environmentally sensitive areas will be mitigated as outlined in the report including complying with all Federal, State and County regulations.

The following is a summary of the wildlife impacts and mitigation:

### **General Wildlife Use**

Due to current land use practices, impacts associated with the Prosper project to general wildlife species would be minor since little wildlife habitat exists. The proposed Prosper development plan (see Section 12, f, Figure 5) indicates that the area of the black-tailed prairie dog coterie in the northeastern corner of the main parcel is planned for open space; therefore no impacts are expected to occur within this area. However, the black-tailed prairie dog coterie located on the west side of the northeast parcel is planned for rural density residential development.

The Box Elder Creek riparian corridor, which provides the highest quality wildlife habitat on the project site, will be protected from development and is planned as an open space corridor.

### **Federally Listed Wildlife**

The project area does not offer suitable habitat for any of the six federally listed species with potential to occur in Arapahoe County. No designated critical habitat for any of the species identified in Table 1 (see Section 12, f, Table 1) exists within or near the project area. Therefore, this project will not directly impact any species protected or proposed for protection under the ESA. However, Table 1 includes four (4) species that, although they do not occur within Arapahoe County, could be affected by the project if it results in water depletions to the South Platte River system. Mitigation for these potential future impacts could include participation in the South Platte River Water Related Activities Program (SPWRAP). This non-profit organization collects membership fees and directs funds to conservation and regulation of the South Platte River in Nebraska.

### **State Species of Concern**

Impacts to the six (6) state species of concern potentially occurring within the project site are expected to be minor. If any ground disturbing activities or prairie dog control efforts are to be conducted between 15 March and 31 October, burrowing owl surveys must first be conducted. The survey area must extend for 150 feet beyond disturbance limits. If burrowing owls are found, the owls must be

carefully monitored to determine which holes they are using. Once all the burrowing owl holes are located and marked, earth disturbing activities or control of prairie dog holes greater than 150 feet away can occur. Protection of burrowing owls, following these recommendations, would result in no impact to the species. Impacts to the spotted ground squirrel, olive-backed pocket mouse, plains pocket mouse, Ord's kangaroo rat, and the eastern spotted skunk are expected to be negligible and will not impact the species viability.

### **Migratory Birds**

The development plan indicates that the suspected Swainson's hawk nest would be impacted by Commercial/Retail Development. The red-tailed hawk nest is located approximately 100 feet off the project site adjacent to proposed open space. Within the project area, disturbance of the active red-tailed hawk nest and the suspected Swainson's hawk nest (when active) cannot occur. To protect against take of an active red-tailed or Swainson's hawk nest, buffer zones and seasonal restrictions exist. The buffer zone for Swainson's hawk nests is 1/4 mile with no human encroachment between 1 April and 15 July; the buffer zone for an active red-tailed hawk nest is 1/3 mile with no human encroachment between 15 February and 15 July (CDOW 2008). No trails, paths, etc. should be constructed within 1/3 mile of the red-tailed hawk nest to ensure that this nest will continue to be used by red-tails in the future and incidental take (and associated violation) can be avoided. If implemented, these buffers and seasonal restrictions should assure that the individuals will continue to nest and loss of the nest does not occur. Adhering to CPW seasonal restrictions and buffer zones would result in no impact to either species.

The Development plan indicates that the great horned owl nest is located at the interface between open space and Rural Density Development. Great horned owls are generally tolerant of human disturbance. However, no earth disturbing activities should occur within 200 feet of the active nest. The nest site should not be impacted or removed until after August 15 to ensure that the young are no longer using the nest.

### **Economically Important Wildlife Species**

The development plan indicates the areas mapped as mule deer winter range within the main parcel are planned as open space; the area mapped as winter range within the northeast parcel is predominantly open space except for the southwest corner, which is identified as Rural Density Development. This development would impact approximately 25 acres of mapped mule deer winter range within the northeast parcel. All of the mapped severe winter range is identified in the development plan as open space. The existing Watkins Farm development is within the NDIS mapped mule deer winter range. This development has converted winter range habitat into predominantly unusable habitat that is likely avoided by mule deer. Some use of this area probably occurs at night or during crepuscular times of the day. Pets, especially dogs, further reduce the habitat quality of this area. The addition of Rural Density Development within the northeast parcel will not further reduce the usability of this area by mule deer. The proposed development will abut the existing development and would occur within an area having a highly modified plant community dominated by undesirable non-native invasive species. No development associated with the Prosper project would occur within NDIS mapped mule deer severe winter range. Portions of the existing Watkins Farm are located within mapped mule deer severe winter range, decreasing the value of the habitat to mule deer.

The majority of the project area is used for dry land farming and does not offer suitable habitat for most of the wildlife species which would exist within a native short-grass prairie ecosystem. Although there are small, remnant areas of native vegetation on the project site, these are disturbed plant communities with a high cover of introduced species; they are generally small in size; they are isolated from other contiguous areas of native habitats; and they are located in a highly modified landscape dominated by agricultural land uses and adjacent to neighborhoods and the I-70 ROW. All of these

factors reduce the wildlife habitat value. The project area does not have habitat capable of supporting species listed, proposed for listing, or candidates for listing under the ESA. Sensitive species that occur within the project area would not be impacted by the proposed development if recommendations provided herein are followed. The proposed Prosper development will impact only a small portion of an already impacted area of mule deer winter range. These impacts are not expected to lead to a decrease in the local mule deer population.

## Traffic Report

■ Under Separate Cover at the Request of Arapahoe County Engineering Services Division



18

TRAFFIC REPORT

**PROSPER**

A new community with an optimistic spirit  
where one can flourish, thrive and succeed

## 18. Traffic Report

In keeping with the Prosper goals and principles, the master plan is configured to reinforce community connectivity. This connectivity plan utilized a dispersed network of primary and secondary streets that are aligned to provide convenient and efficient access within and adjacent to Prosper. The master plan is configured to promote alternative modes of transportation that includes mass transit, bicycling and walking.

Prosper is designed to include a comprehensive circulation system (see Exhibit 3.e.3) that is comprised of a hierarchy of street classifications and key connections. Primary streets such as Watkins Road and E. 6<sup>th</sup> Avenue have been located and aligned to serve as regional and community transportation connections as outlined in the Arapahoe County Transportation Plan. As illustrated on the attached master plan, Watkins Road has been realigned to minimize impacts on the Coyote Creek corridor and to avoid the 100 year flood plain. This realignment also preserves the rural character associated with the existing residential outparcels located along Watkins Road. Secondary and tertiary streets are located and aligned to provide a dispersed transportation network that will provide motorists north, south, east and west access alternatives. This dispersed network will further minimize impacts on major arterials. Streets at Prosper will be designed to efficiently transport motorists while providing safe and convenient pedestrian connections.

Neighborhood planning areas are located and configured within a quarter mile of a community focal point or node. These focal points may include a school, commercial mixed use center or park. Locating these focal points within a quarter mile of community focal points will encourage pedestrian activity while reducing reliance on the automobile (see Exhibit 3.e.2).

These community focal points or nodes also have the ability to serve as transit stops that will provide convenient access to residents given the quarter mile proximity to neighborhood planning areas. The regional commercial component located at Watkins Road and Interstate 70 is located within one mile of the existing Union Pacific rail line located north of US 36. This one mile distance will provide convenient access in the event a heavy transit rail system and stop should be implemented in the future.

Prosper includes a comprehensive trail system that is designed to connect to mixed use centers, neighborhoods, parks and schools. Regional trails identified on the Arapahoe County Open Space Plan have also been incorporated into the trails plan. Trails will provide residents alternative transportation modes and routes to access regional and community land use components.

As required, a transportation plan and traffic analysis has been prepared for Prosper. This traffic analysis address the scope of items reviewed with the County and is included in this section.

### **Prosper Transportation Plan**

A transportation plan has been prepared for Prosper and as requested has been submitted separately to Arapahoe County Public Works.

Prosper will continue to evaluate transportation strategies to optimize progression bandwidths and intersection spacing to meet County standards at the time of Preliminary Plat.

Per the Prosper Traffic Impact Study additional ROW for auxiliary turn lanes and those lanes that are unique to optimize progression will be necessary in the future including but not limited to continuous flow, displaced left turns, and other transportation improvements. Additional ROW shall be determined with the Preliminary Plat and approved with the Final Plat.

The Traffic Impact Study submitted for the Prosper Development is preliminary and will require an updated analysis as development is implemented. A new Traffic Impact Study that meets the County's requirements shall be submitted with the Preliminary Plat and then with each Final Plat / Final Development Plan.

Transportation connections including providing required emergency vehicle access will be reviewed and required at the FDP and Final Plat phase. The intent will be to disperse traffic as opposed to having one point of connection.



19

**BENEFIT / COST ANALYSIS**

**PROSPER**  
A new community with an optimistic spirit  
where one can flourish, thrive and succeed

## **19. Benefit/Cost Analysis**

A fiscal impact report is included in this application that includes a financial analysis and summary outlining the cost and benefit to the residents of Arapahoe County (please see Section 6). As outlined in the Fiscal Impact report found in Section 6, Prosper will provide a positive financial impact with regards to the local economy, government agencies and the County General Fund. Please see Section 6 for the Fiscal Impact Report.

THIS PAGE INTENTIONALLY LEFT BLANK

## Engineering Studies

- Under Separate Cover at the Request of Arapahoe County Engineering Services Division



20

ENGINEERING STUDIES

**PROSPER**

A new community with an optimistic spirit  
where one can flourish, thrive and succeed

## **20. Engineering Studies**

### **Prosper Phase I Drainage Report**

A phase I drainage report has been prepared for Prosper and as requested has been submitted separately to Arapahoe County Public Works and Development.

### **Traffic Impact Study**

A Traffic Impact Study has been prepared for Prosper and as requested has been submitted separately to Arapahoe County Public Works and Development.

THIS PAGE INTENTIONALLY LEFT BLANK

# Outside Agencies Referrals & Responses



21

## OUTSIDE AGENCIES REFERRALS & RESPONSES

**PROSPER**  
A new community with an optimistic spirit  
where one can flourish, thrive and succeed

## 21. Outside Agencies Referrals and Responses

The following agencies have reviewed the Prosper 1041 Submittal Document and submitted comments to Arapahoe County. Comments have been reviewed and addressed. A response letter has been submitted to Arapahoe County under separate cover.

The following is a list of all of the reviewing agencies:

Ms. Karen Hart  
Assessor  
**Arapahoe County**  
Internal

Mr. Brian McNight  
**Sheriff/Crime Prevention Specialist**  
Arapahoe County  
Internal

Ms. Diane Kocis  
**Oil & Gas**  
Arapahoe County  
Internal

Mr. Porter Ingrum  
**Aurora Planning**  
15151 E Alameda PKWY Suite 2300  
Aurora, CO 80012

Mr. Stuart McArthur  
**Bennett Planning Administration**  
355 4th Street  
Bennett, CO 80102-7806

Mr. Travis Harris  
**Colorado Division of Wildlife**  
6060 Broadway  
Denver, CO 80216-000

Mr. Abel Montoya  
**Adams County Planning**  
4430 S Adams City PKWY  
1st Floor Suite W 2000A  
Brighton, CO 80601

LT. Caleb Connor  
**Bennett Fire Protection District**  
825 Shari's Court  
Bennett, CO 80102

Ms. Donna Sternback  
**Arapahoe Library District**  
12855 E Adam Aircraft Cir  
Englewood, CO 80112

Mr. Jose Rodriguez  
**Post Office – Arapahoe County Growth Coordinator**  
7500 E 53rd PL RM 11080 A  
Denver, CO 80226-9321

Mr. Matt Reay  
**REAP**  
11226 N Raritan St.  
Westminster, CO 80234

Mr. Jack Keever  
**REAP**  
11226 N Raritan St.  
Westminster, CO 80234

Mr. John Barry  
**Aurora School District 28.J**  
15701 E 1st Ave Suite 206  
Aurora, CO 80011

Mr. Keith Yaich  
**Bennett School district 29.J**  
615 7th Street  
Bennett, CO 80102

Mr. Warren Brown  
**Tri County Health Department**  
6162 S Willow Dr. Suite 100  
Greenwood Village, CO 80111-1628

Mr. Jay Dalrymple  
**ACCORD – East**  
4070 S Odessa St  
Aurora, CO 80013

Ms. Sammie Molinaro  
**West Arapahoe Conservation District**  
133 W Bijou Ave  
Byers, CO 80103-1000

Mr. Rick Solomon  
**CDOT Region 1 Traffic & Safety**  
2000 South Holly  
Denver, CO 80222

Mr. Chris Quinn  
**RTD**  
1560 Broadway Suite 700  
Denver, CO 80202-1399

Mr. Phillip Martin  
**Conoco Phillips Existing Pipeline**  
905 S Fillmore Street Suite 600  
Amarillo, TX 79101

Ms. Donna George  
**XCEL Energy**  
1123 W 3rd Ave  
Denver, CO 80223

Mr. Tim Carey  
**US Army Corps of Engineers**  
9307 S Wadsworth Blvd  
Littleton, CO 80128

Ms. Joanna Williams  
**CO Division of Water Resources – Office of the State Engineer**  
1313 Sherman Street Suite 818  
Denver, CO 80203

Mr. Bill Degroot  
**Urban Drainage**  
2480 W 26th Ave Suite 156-B  
Denver, CO 80211-000

Ms. Marilyn Cross  
**CDOT Region 1 Traffic & Safety**  
2000 South Holly  
Denver, CO 80222

**East End Advisory Committee**

THIS PAGE INTENTIONALLY LEFT BLANK