

# Northwest Douglas County Infrastructure Plan Stakeholders Meetings



A REPORT TO THE DOUGLAS COUNTY BOARD OF COUNTY COMMISSIONERS  
JUNE 2012



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Curt Weitkumat, AICP, Planning Supervisor  
Timothy Murrell, Water Resources Planner  
Katherine E. Rider, AICP, Principal Planner  
Matt Williams, P.E., CFM, Senior Development Review Engineer

## **Consultant Team**

### ***Leese & Associates LLC (Public Involvement and Planning)***

Mark Leese, Project Manager  
Jennifer Orozco  
Eric Swan

### ***Matrix Design Group (Infrastructure Master Planning)***

John Blanchard  
Patrick Chelin

### ***Ricker/Cunningham (Impact Analysis and Financing Strategies)***

Anne Ricker  
Bill Cunningham

### ***Paul C. Benedetti (District Consolidation and Economic Development Organization Strategies)***

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## INTRODUCTION

This project was an investigation into how infrastructure in Northwest Douglas County (NWDC) could be augmented to create a more coherent service system resulting in protection of property values for existing residences and businesses, and ultimately creating an area of the County that is rich in economic development opportunity.

The principal goal of this effort was to garner an understanding of what steps should be taken, if any, regarding the development of infrastructure plans and funding scenarios for future improvements to safeguard property values in NWDC.



The **main objectives** of this effort were to:

- Gauge property owner support for the creation of an infrastructure master plan.
- Discuss alternative approaches to service delivery and financing.

This study is the first step in discussions regarding the possibility of forming partnerships to support long-term solutions, funding opportunities; and detailed planning, design, and implementation of infrastructure improvements.

## STUDY AREA

The project area is generally located in the northwest part of the County, south of Chatfield State Park. The NWDC zoning map, Figure 1, provides an overview of the area.

The zoning map shows the context of land uses in the area, notably the mixture of Planned Development (PD), Rural Residential (RR), General Industrial (GI), and Light Industrial (LI) zone districts scattered among Agricultural-One (A-1) zoned land. Each property represents a landowner with unique set of values and aspirations for the future of the area.

Figure 2 shows how the limited service areas of mainly NWDC water and sanitation districts, leaving significant areas underserved. NWDC is lacking in infrastructure and the cohesive provision of services, resulting in dependence on individual wells for water and septic systems for waste treatment.

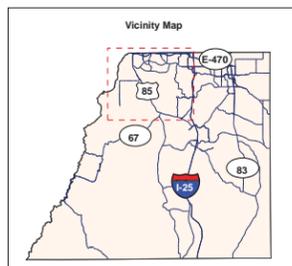
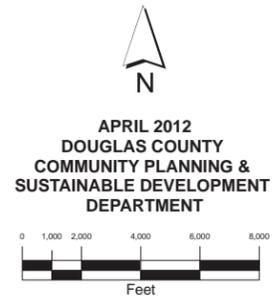


In order to protect property values, and for owners to realize the full development potential of their properties additional infrastructure will have to be developed and this will require the expansion of existing service districts or the participation of new service providers.

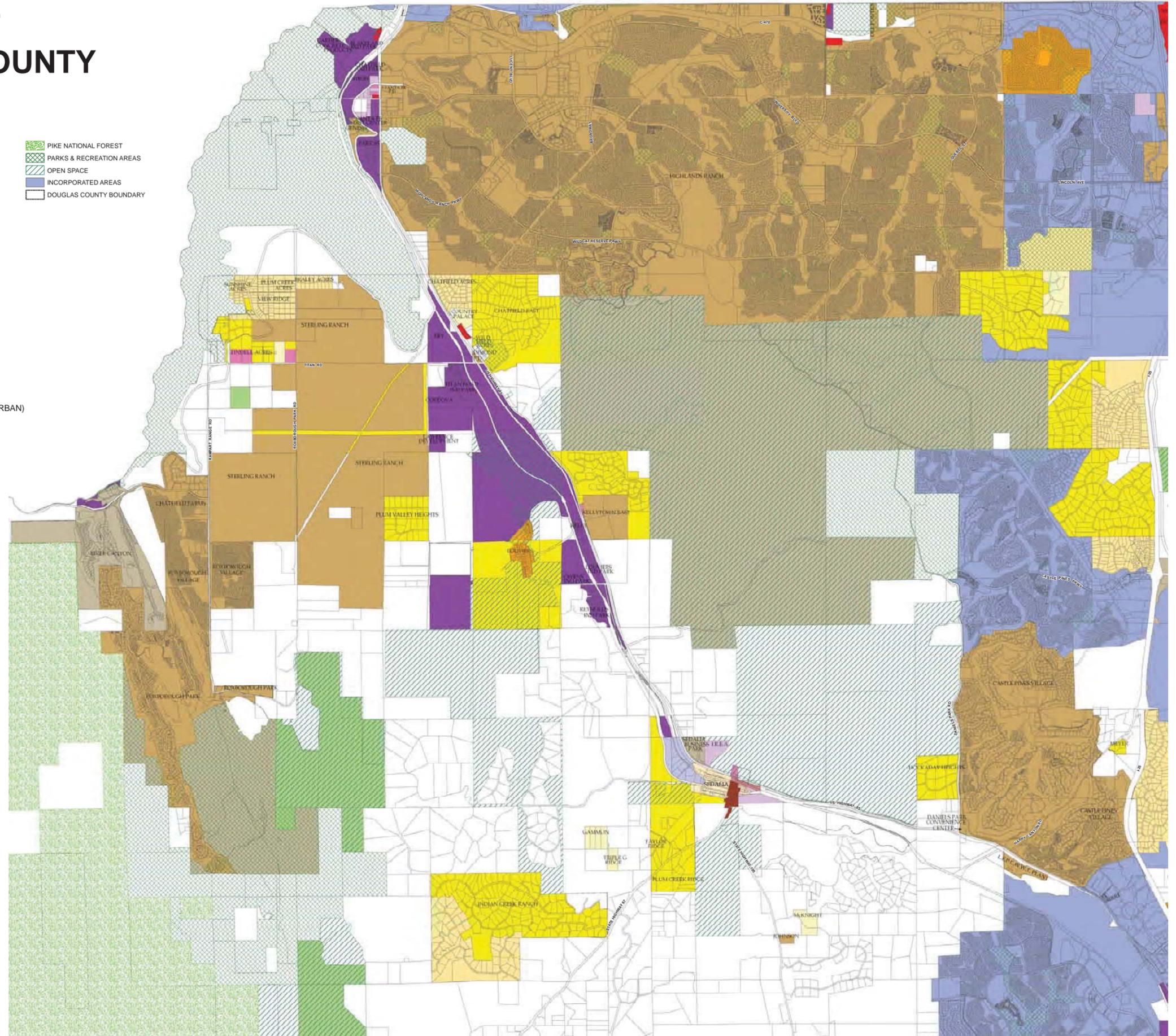
Figure 1:  
Northwest  
Douglas  
County  
Zoning Map

# NORTHWEST DOUGLAS COUNTY ZONING MAP

- A1 - AGRICULTURAL ONE
  - LRR - LARGE RURAL RESIDENTIAL
  - RR - RURAL RESIDENTIAL
  - ER - ESTATE RESIDENTIAL
  - SR - SUBURBAN RESIDENTIAL
  - MF - MULTIFAMILY
  - LSB - LIMITED SERVICE BUSINESS
  - B - BUSINESS
  - C - COMMERCIAL
  - LI - LIGHT INDUSTRIAL
  - GI - GENERAL INDUSTRIAL
  - CMTY - SEDALIA COMMUNITY
  - D - SEDALIA DOWNTOWN
  - HC - SEDALIA HIGHWAY COMMERCIAL
  - MI - SEDALIA MIXED INDUSTRIAL
  - PDU - PLANNED DEVELOPMENT (URBAN)
  - PDNU - PLANNED DEVELOPMENT (NONURBAN)
  - OSC - OPEN SPACE (ZONED)
- PIKE NATIONAL FOREST
  - PARKS & RECREATION AREAS
  - OPEN SPACE
  - INCORPORATED AREAS
  - DOUGLAS COUNTY BOUNDARY



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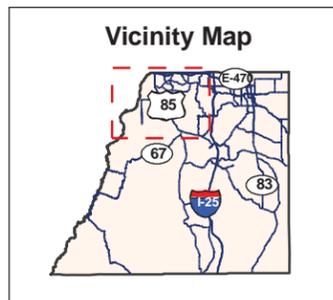
# NORTHWEST DOUGLAS COUNTY

## SERVICE PROVIDERS

### DOUGLAS COUNTY, COLORADO

#### SERVICE PROVIDERS:

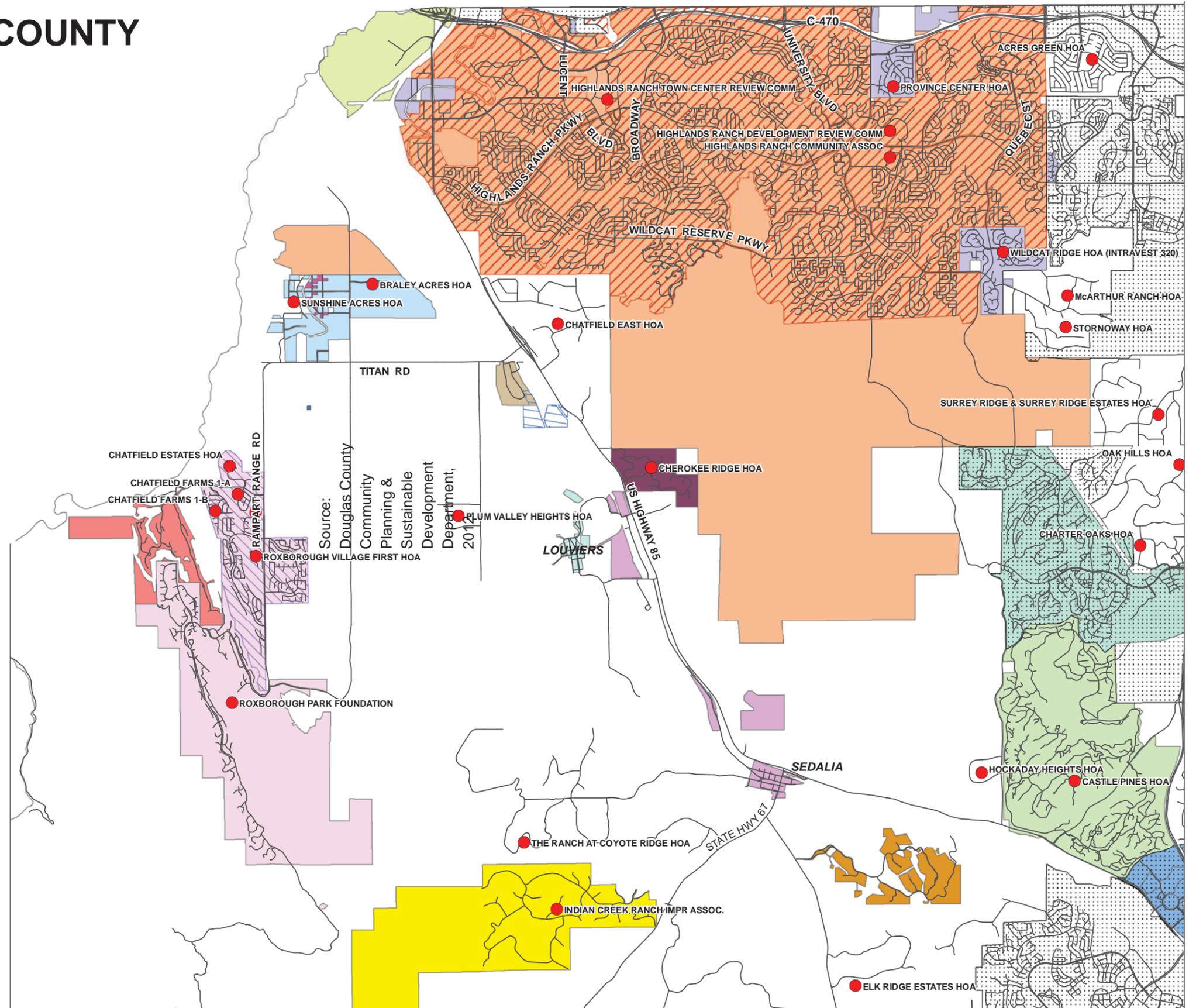
- Homeowners Association Locations
- Castle Pines Comm Metropolitan Districts #1-5
- Castle Pines Metropolitan District
- Castle Pines North Metropolitan District
- Cherokee Ridge Estates Metropolitan District
- Highlands Ranch Metropolitan District
- Ravenna Metropolitan District
- Roxborough Village Metropolitan District
- South Santa Fe Metropolitan Districts #1 & 2
- Solitude Metropolitan District
- Titan Road Industrial Park Water Association Incorporated
- View Ridge Mutual Water Company
- Centennial Water & Sanitation District
- Chatfield South Water District
- Dominion Water & Sanitation District
- Louviers Water & Sanitation District
- North Douglas County Water & Sanitation District
- Roxborough Water & Sanitation District
- Sedalia Water & Sanitation District
- Southwest Metro Water & Sanitation District
- Thunderbird Water & Sanitation District
- United Water & Sanitation District
- Incorporated Areas



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## OUTREACH PROCESS

In late 2011, the Board of County Commissioners directed staff to initiate this public outreach process in support of the Board’s Economic Foundations goal. This process can be characterized as the first step towards building or establishing service infrastructure in NWDC to foster economic development, which will establish a strong economic foundation for the people who live and work in the area, support new development and ensure that existing property values are strong.

The public outreach process included four parts: interviews with stakeholders (primarily conducted over the telephone), large format public meetings, small group meetings, and one-on-one meetings with local business owners.

The public outreach effort mainly explored the feasibility of developing water, wastewater, and transportation infrastructure with NWDC businesses, commercial property owners, and service providers. The General Consensus & Recommendations section of this report provides direction from affected business community members and service providers regarding the development of a master plan for the financing and development of service infrastructure.

### Interviews

Interviews conducted with local stakeholders, including service providers, residents, developers, and economic development professionals, were important to understanding the issues in NWDC. They were conducted between February and April 2012. Appendix A contains a list of stakeholders or those entities interviewed, the list of questions, and a summary of the responses.

### Large Format Public Meetings

#### Large Format Public Meeting #1 (April 5, 2012)

Participants were invited to comment on the project at a meeting held on April 5, 2012. A small group of residents expressed opinions that they are opposed to the County providing anything that would result in reliable and renewable water services to property owners in the area. They also stated their opposition to new development of any kind.

In contrast, Louviers Water and Sanitation District representatives stated they had water supply issues and were working on solutions with representatives of Sterling Ranch. Further statements indicated there was a need for cooperation and cost sharing as reliable sources of water are difficult for small entities and individuals to afford. Further discussion revealed that there are at least three other area communities, Plum Valley Heights, Chatfield Acres, and Chatfield East that have serious water supply issues and would welcome assistance from the County.

***“Like “tizzying” geese getting ready to take flight, momentum is starting to pick up.”***

— Stakeholder Meeting Attendee



## Large Format Public Meeting #2 (April 19, 2012)

A second meeting was held on April 19, 2012. Attendees formed four small groups, based on the geographic location of their place of residence or business. They drew on maps provided by the County to indicate their desires and needs for infrastructure development.

### Geography-based small groups were:

- Properties North of Titan Road and west of Moore Road, including the ARS Property (AKA “North of Titan Road”).
- Roxborough Park, Roxborough Village, Sterling Ranch, Plum Valley Heights, and adjacent properties (AKA “Roxborough, Sterling Ranch, & Plum Valley Heights”).
- Sedalia Water and Sanitation District, Thunderbird Water and Sanitation District and properties along SH 67 (AKA “Sedalia, Thunderbird, & SH 67 Area”)
- Louviers Water and Sanitation District, and residential and industrial properties along Titan Road and US 85 (AKA “Louviers, Titan Road, & US 85 Corridor”)

Following are summaries of each group’s ideas for infrastructure improvements and other goals for their neighborhoods.

### **Properties North of Titan Road, including the ARS Property**

The ‘North of Titan Road, including the ARS Property’ group expressed desires for a right turn lane from westbound Titan Road onto northbound Roxborough Park Road and bike lanes on Titan Road. They also stated their desire to maintain the quality of life they enjoy today with no adverse impacts due to future development. They did, however, acknowledge that water supply is an issue when they asked: “Will (the) County get water for current residences without new development first?”



### Other **North of Titan Road** comments included:

- No “cart before the horse” (don’t build without water).
- No building without proof of water and water system plan first.
- Maintain quality of life “as is” as development happens.
- No adverse impact to current residential areas.
- Maintain air quality in area.
- No increase in taxes for unwanted development; spell out impacts in advance.
- County shouldn’t pay for infrastructure for new development.
- No deterioration of traffic level of service as development happens; development pays for (the) upgrade(s).

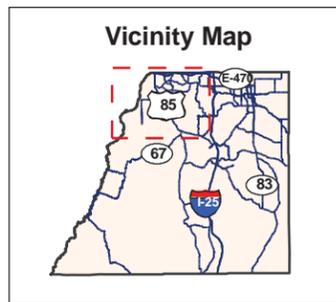
Figure 3: Stakeholder Map - North of Titan Road

# NORTH OF TITAN ROAD

## DOUGLAS COUNTY, COLORADO

### MAP LEGEND:

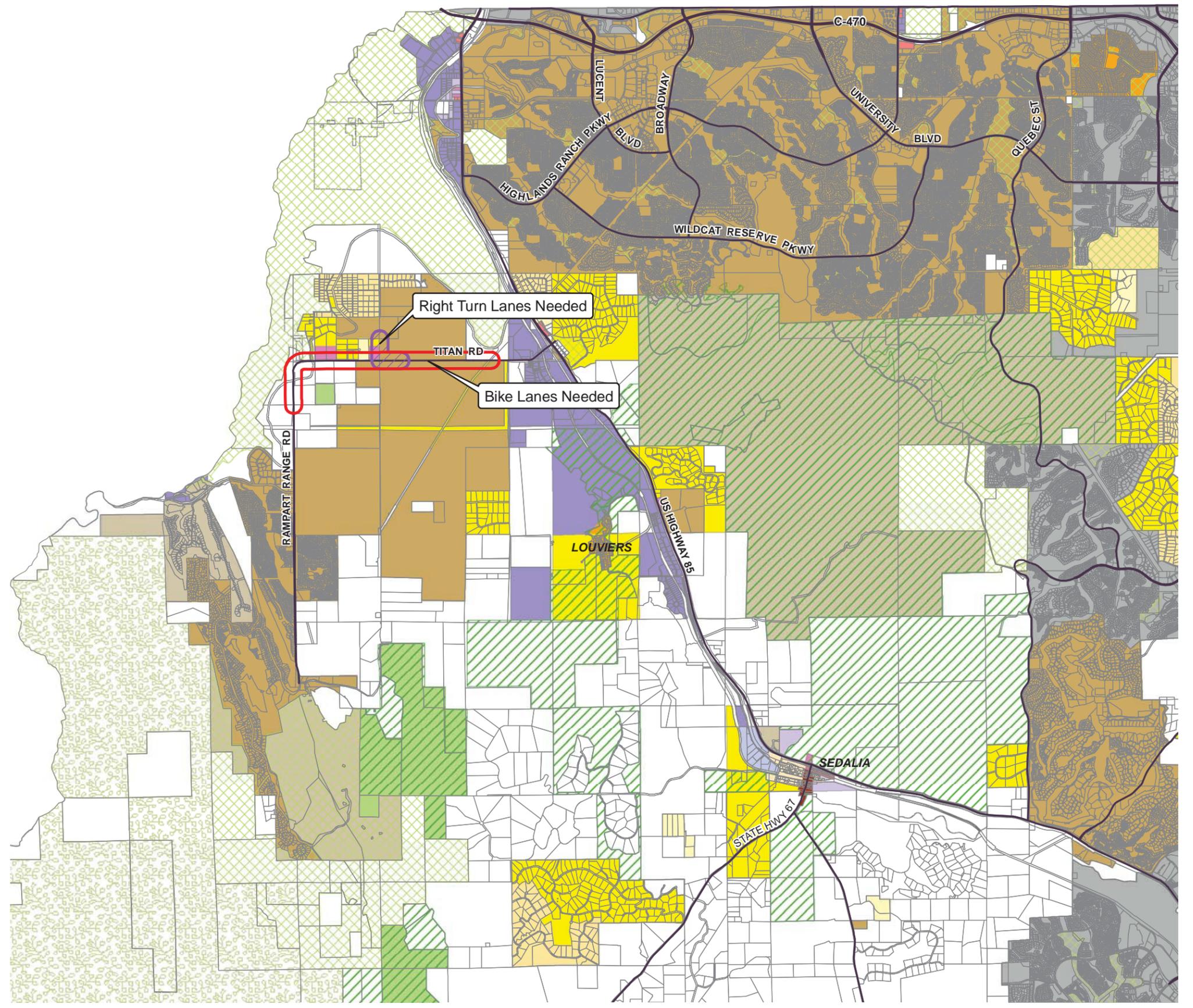
-  BIKE LANES NEEDED
  -  RIGHT TURN LANE NEEDED
  -  PIKE NATIONAL FOREST
  -  PARKS
  -  OPEN SPACE
  -  INCORPORATED AREAS
- ZONE TYPE:**
-  A1 - AGRICULTURAL ONE
  -  LRR - LARGE RURAL RESIDENTIAL
  -  RR - RURAL RESIDENTIAL
  -  ER - ESTATE RESIDENTIAL
  -  SR - SUBURBAN RESIDENTIAL
  -  B - BUSINESS
  -  C - COMMERCIAL
  -  LI - LIGHT INDUSTRIAL
  -  GI - GENERAL INDUSTRIAL
  -  CMTY - SEDALIA COMMUNITY
  -  D - SEDALIA DOWNTOWN
  -  HC - SEDALIA HIGHWAY COMMERCIAL
  -  MI - SEDALIA MIXED INDUSTRIAL
  -  PDU - PLANNED DEVELOPMENT (URBAN)
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  -  OSC - OPEN SPACE CONSERVATION (ZONED)



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### **Roxborough, Sterling Ranch, and Plum Valley Heights**

The group representing Roxborough Park, Roxborough Village, Sterling Ranch, Plum Valley Heights, and adjacent properties stated that regionalization of infrastructure offered the possibility of improved efficiencies and lower costs. They cited the cooperative agreement between the West Metro Fire Department and the Roxborough Park Metropolitan District (now the Roxborough Water and Sanitation District) as an example of this.

**Roxborough, Sterling Ranch, and Plum Valley Heights** participants stated their support for:

- The proposed library and sports park north of Titan Road (in the Sterling Ranch Town Center).
- The Lamb Spring museum.
- The expansion or replacement of the Roxborough Water & Sanitation District water treatment plant.
- The proposed reservoir (on the ARS property).

They also stated that there are needs for:

- Water infrastructure south of Titan Road and west of Roxborough Park Road (near Lamb Spring).
- Cleaning, maintenance, and improvements to the wetlands and paths in the Roxborough Village Metropolitan District.
- A sanitary sewer line in the US 85 corridor in order to improve and protect the water quality of Plum Creek, the South Platte River, and Chatfield Reservoir.
- Bike lanes on Titan Road to improve safety.
- Grade-separated intersections on Waterton Canyon Road at Wadsworth Boulevard.
- A new southern road connection from US 85 (south of Louviers), through Sterling Ranch, to Roxborough and Chatfield Farms, henceforth referred to as the "Southern Connector" (This road alignment is currently being studied by Douglas County Engineering; see page 30).

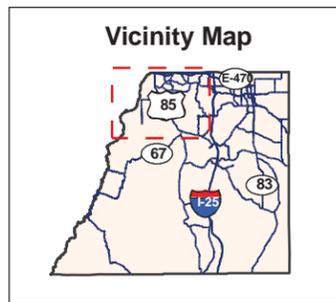
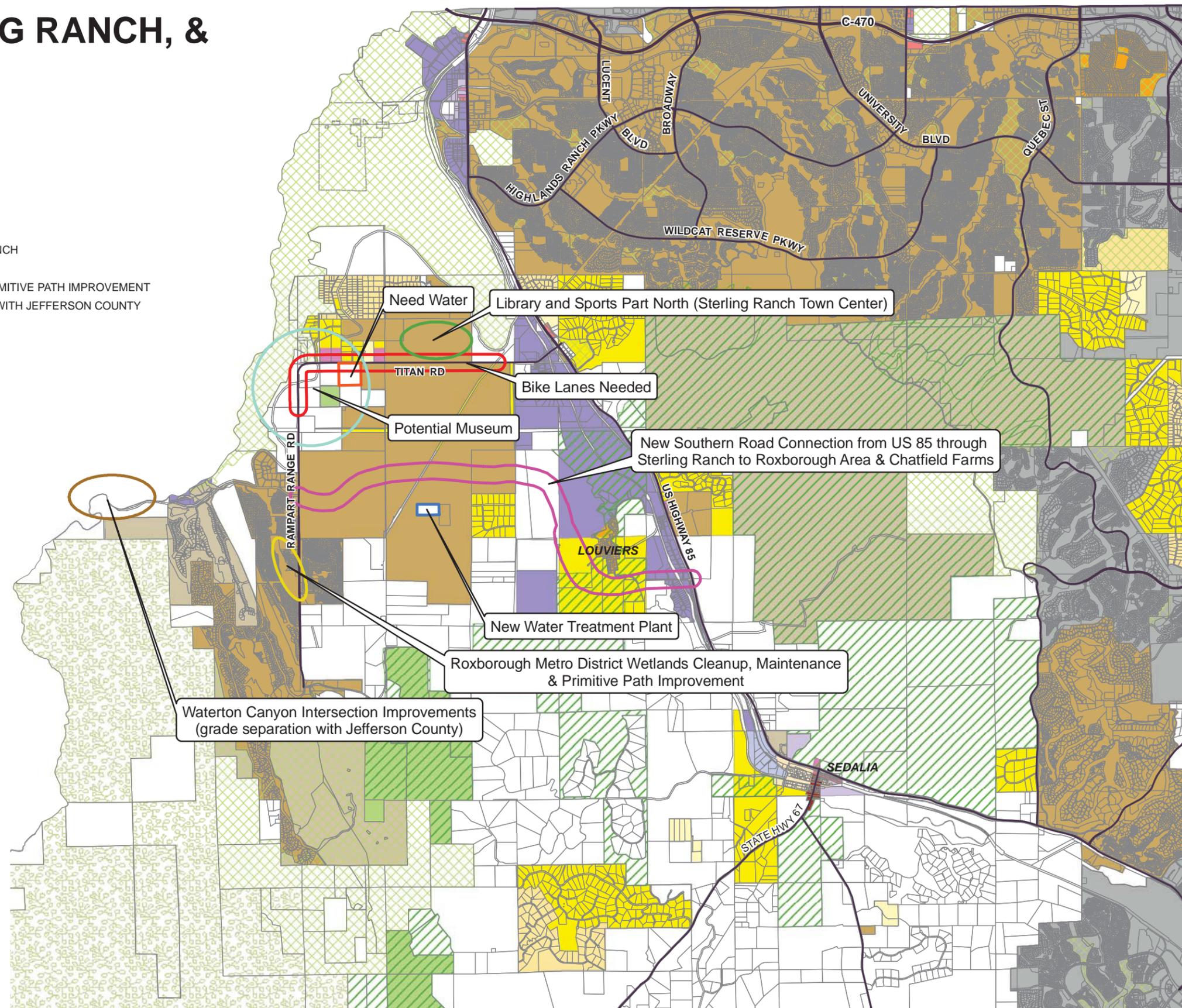
# ROXBOROUGH, STERLING RANCH, & PLUM VALLEY HEIGHTS

## DOUGLAS COUNTY, COLORADO

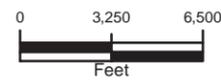
### MAP LEGEND:

-  BIKE LANES NEEDED
-  LAMB SPRING MUSEUM
-  LIBRARY & SPORTS PARK NORTH (STERLING RANCH TOWN CENTER)
-  NEED WATER
-  NEW SOUTHERN ROAD CONNECTION FROM US 85, THROUGH STERLING RANCH
-  NEW WATER TREATMENT PLANT
-  ROXBOROUGH METRO DISTRICT WETLANDS CLEANUP, MAINTENANCE & PRIMITIVE PATH IMPROVEMENT
-  WATERTON CANYON INTERSECTION IMPROVEMENTS (GRADE SEPARATION WITH JEFFERSON COUNTY)

-  PIKE NATIONAL FOREST
  -  PARKS
  -  OPEN SPACE
  -  INCORPORATED AREAS
- ZONE TYPE:**
-  A1 - AGRICULTURAL ONE
  -  LRR - LARGE RURAL RESIDENTIAL
  -  RR - RURAL RESIDENTIAL
  -  ER - ESTATE RESIDENTIAL
  -  SR - SUBURBAN RESIDENTIAL
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### ***Sedalia, Thunderbird Water and Sanitation District, and SH 67 Area***

The group representing this area stated that they were open and willing to cooperate with Louviers regarding infrastructure needs, and that, in fact, they would benefit from a more cost-effective district. They acknowledged that the village of Sedalia has benefitted from approximately \$900,000 in grants that the County helped them to secure.



Sedalia Water and Sanitation owns some surface water rights and believes that they have enough surface and ground water to accommodate future needs. Sedalia residents are forward-looking, in that they already pay a renewable water assessment that is included in their monthly bills. Most areas outside Sedalia have individual wells.

Sedalia's most pressing infrastructure issue is wastewater collection and treatment. Wastewater in Sedalia and surrounding areas is handled by on-site wastewater treatment systems (OWTS). They expect that in the future the EPA will limit the use of individual on-site decentralized septic systems, so the village of Sedalia and surrounding areas, including the IREA headquarters building, will have to develop a centralized wastewater collection and treatment system. The group identified two possible areas of influence where future regulations may affect OWTS use.

#### Other desires expressed by **Sedalia, Thunderbird, and SH 67 Area** participants included:

- Do not allow any proposed reservoir on Penley Ranch.
- Do not allow the recently proposed landfill.
- Increase the amount of open space in the area.
- Retain the rural lifestyle that the area south of Sedalia now enjoys.
- Build additional parks and recreation facilities.
- Build trail connections to the National Forest lands.

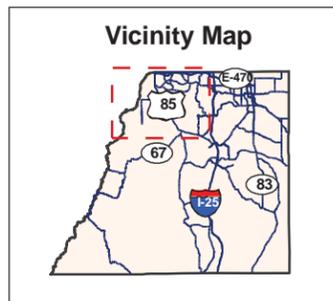
Figure 5: Sedalia, Thunderbird, & SH67

# SEDALIA, THUNDERBIRD, & SH67

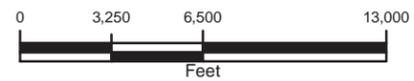
## DOUGLAS COUNTY, COLORADO

### MAP LEGEND:

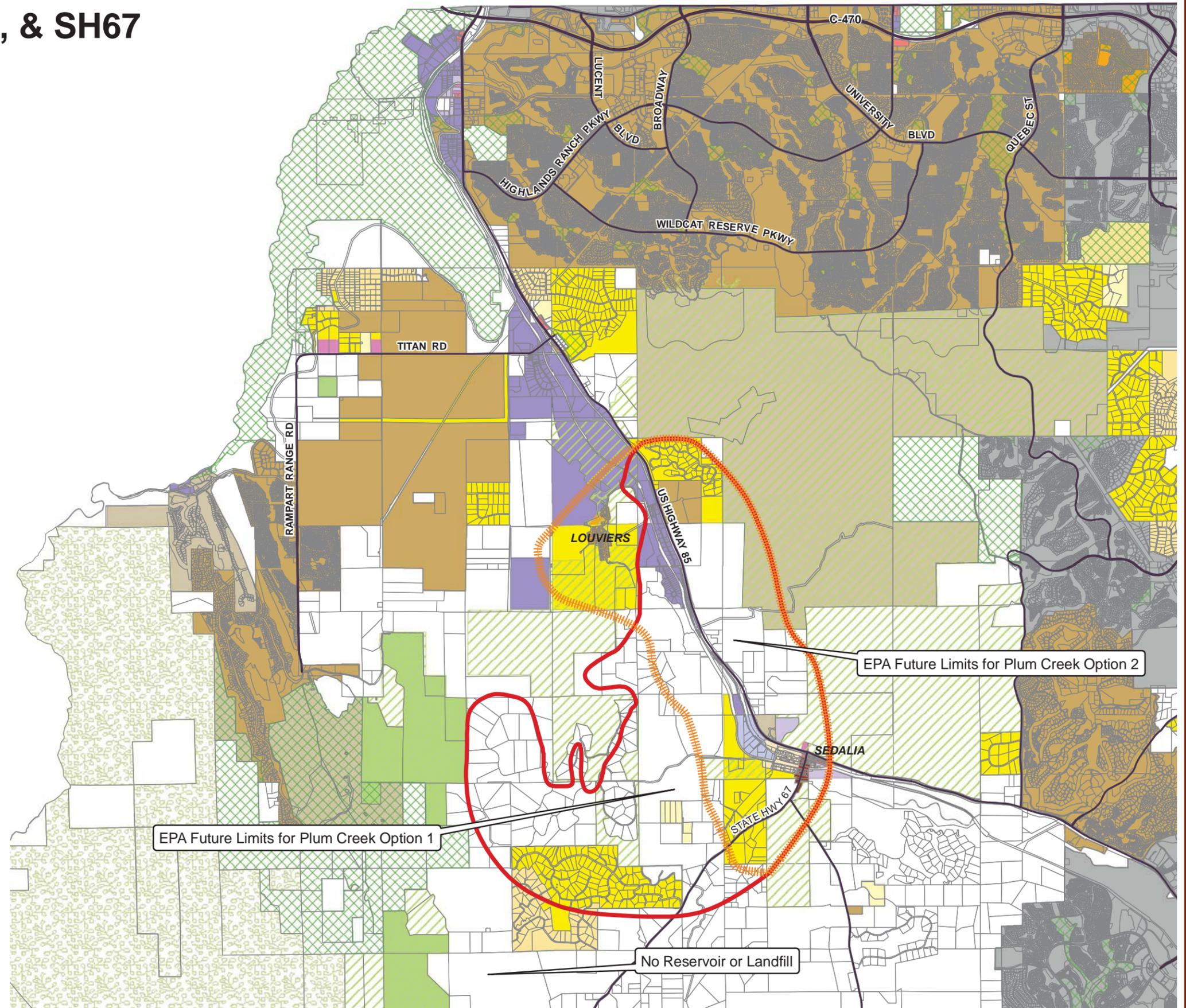
-  PLUM CREEK BOUNDARY OPTION 1
  -  PLUM CREEK BOUNDARY OPTION 2
  -  PIKE NATIONAL FOREST
  -  PARKS
  -  OPEN SPACE
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### ***Louviers, Titan Road, and US 85 Corridor***

The group representing Louviers, Titan Road, and the properties along US 85, said that they would like to see new wildlife corridors into the foothills and along Plum Creek, and a new secondary road connection to Roxborough (the Southern Connector).

#### **Louviers, Titan Road, and US 85 Corridor** infrastructure needs include:

- A new sanitary trunk line along the Plum Creek and US 85 corridor from Sedalia to Titan Road.
- A new regional sanitary treatment facility between Plum Creek and US 85, near Titan Road. Ideally, this would be an enclosed plant with water recycling to support a dual water system with separate metering for gray water. Louviers currently has a land treatment sanitary system.
- A new renewable water trunk line along US 85.
- New water connections to Plum Valley Heights, Titan Road Industrial Park, Chatfield East, Louviers, Reynolds Industrial Park, and Owens Industrial Park. (It is important to note that, unlike Sedalia, much of this area does not qualify for CDBG grant funding because the census tracts include areas with a large number of households with moderately high middle class incomes.)

Figure 6: Louviers, Titan Road & US 85 Corridor

# LOUVIERS, TITAN ROAD & US 85 CORRIDOR

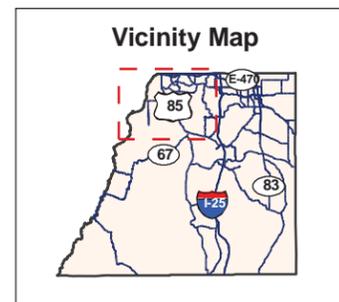
## DOUGLAS COUNTY, COLORADO

### MAP LEGEND:

-  2nd ROAD CONNECTION TO ROXBOROUGH
-  NEW SANITARY TRUNK LINE ALONG PLUM CREEK & US 85 CORRIDOR
-  NEW WATER CONNECTION
-  SANITARY LAND TREATMENT
-  SANITARY CONNECTION
-  WILDLIFE CORRIDORS
-  PIKE NATIONAL FOREST
-  PARKS
-  OPEN SPACE
-  INCORPORATED AREAS

### ZONE TYPE:

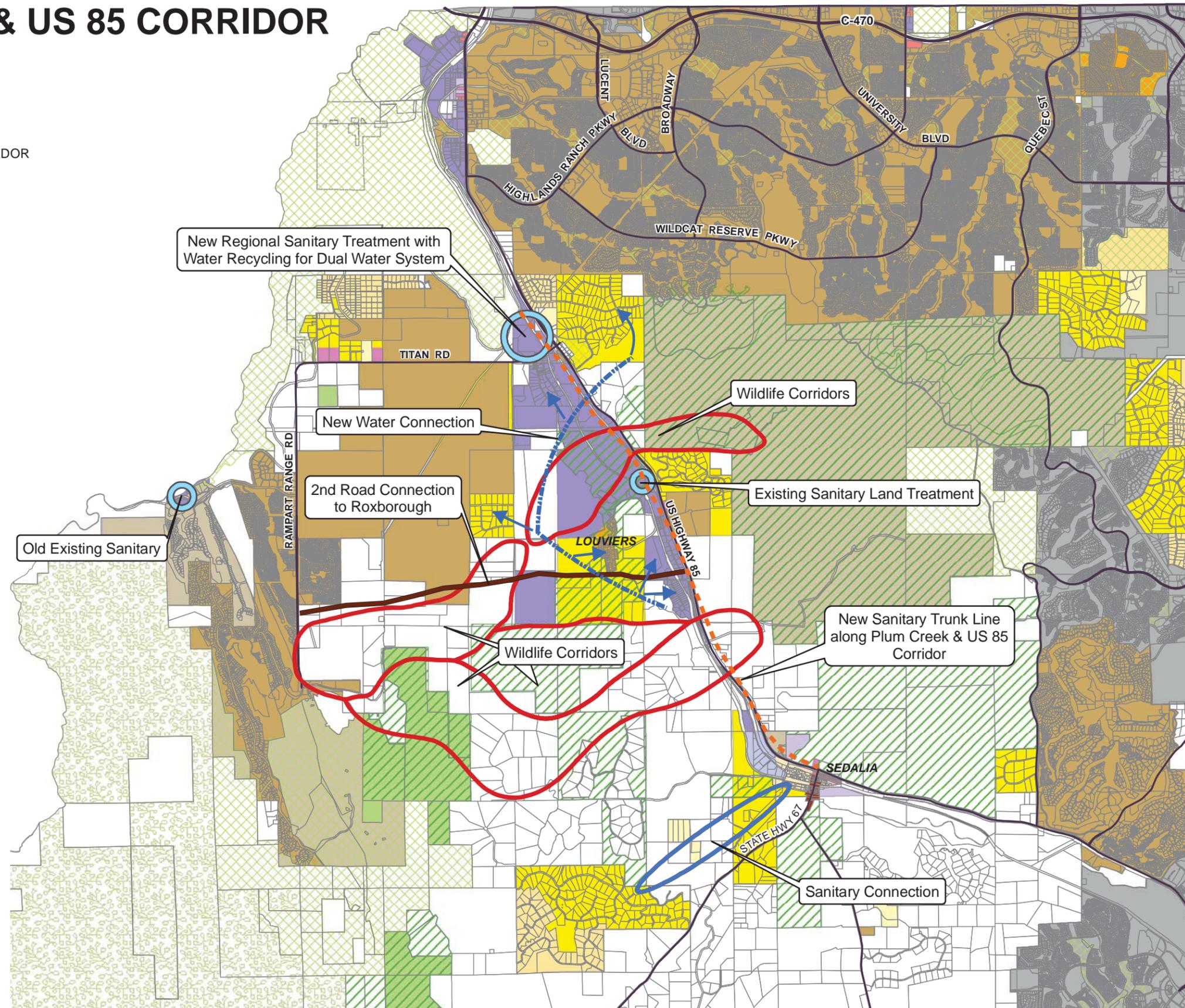
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## Small Group Meetings

The two large format meetings were followed by three small group meetings, held in April and May of 2012. The purpose of these meetings was to check back with the group members regarding their ideas and provide an opportunity for more detailed conversations about infrastructure improvements in NWDC.

### Small Group Meeting #1 (April 26, 2012)

Attendees of this meeting included a number of service district representatives and property owners.



#### Major points raised at Small Group Meeting #1 included:

- While some people see economic development as a threat to their lifestyle, most people in the area would define economic development as preservation of their property values, since depletion of the aquifers would be catastrophic to land and property values.
- The costs of water are only going up and getting farther out of reach, and small providers and HOAs need to be purchasing water rights in order to secure a renewable water option for future inclusion in any district.
- Regionalization will result in cost efficiencies that will assist the area in becoming viable for economic development. There is a need to gather as many customers as possible into a district(s) that would provide services to the area.
- The area is viewed as having "untapped potential," being limited at this time by the lack of water and transportation infrastructure. If it had adequate infrastructure, it would be a good target for new economic development and create an environment that would allow existing businesses to remain at their present locations.
- The difficult questions about how to proceed will come when considering the various small communities and their individual wants and needs. Some of the smaller communities do not want help, so thinking about an approach will be required before they begin talking to other groups within the area. There is not a "no action" alternative. The question is: "Who will begin this process?"

The group began to formulate parts of a strategy for moving forward.

**Small Group Meeting #1 go-forward ideas included:**

- Stakeholders need to form an umbrella organization to bring the various interests together, to begin talking to each other, and to begin taking steps toward district formation.
- It will be important to accommodate the different needs of the different areas.
- Stakeholders and communities need to set up a structure now that can be added to over time. Property owners can opt in now or later, but it will be less expensive for them if they do it now.
- It will be important to plan infrastructure improvements so as to not get too far ahead of the ability to pay for improvements.
- The potential exists for "picking low hanging fruit," in other words doable projects that start the process of creating infrastructure that can grow into something that serves the whole area over time. There is a need to start small, achieve early successes, and build momentum.
- Need to develop a plan for the 'central area' (the area between Roxborough and US 85, south of Titan Road, and extending south as far as people want). Anyone looking at ways to provide services to this area would have to try to maximize the number of customers served within this area.
- At the same time, in order to get anything started, they will have to start small and grow incrementally. There was general agreement that if Louviers and Plum Valley Heights start the process, others will follow.
- Initially, the County's role is to facilitate and continue the process.

**Small Group Meeting #2 (May 24, 2012)**

Attendees of this meeting included a number of service district representatives and property owners.

**Major points raised at Small Group Meeting #2 included:**

- Concern regarding intimidation from those communities that may not want further development.
- It was pointed out that residents, commercial property owners, and developers are all allies in bringing infrastructure. Developers need support from residents as much as residents need the developers to help get infrastructure. Momentum is starting to pick up.
- A representative of Roxborough Water and Sanitation District stated that the District's board would entertain the idea of adding customers if it benefitted their existing customer base by lowering the average charge to all customers. Roxborough Water and Sanitation District will soon be ready to take on a new project, a new water treatment plant, and now would be a good time to think about adding customers, as they figure out how big to make the new facility. Doing so would provide service while potentially lowering costs for everyone.
- A representative of the Sedalia Water and Sanitation District, and the greater Sedalia community, indicated that the District and community would prefer to evaluate future options before committing to new service ideas.



Overall, the group thought this process would accomplish two things: it would be a planning tool for the County, and provide information to landowners and developers.

**Small Group Meeting #2 attendees commented on things to consider as the process moves forward:**

- As people start to think about infrastructure planning, they should define the timing of phases for expansion. In addition to timeframes, it would also be useful to think in terms of thresholds (i.e. levels of service or numbers of customers served).
- It will be important to phase infrastructure improvements according to the present day need and ability to pay, and never get ahead of the ability to pay.
- It will be important to include estimates of future residential populations and industrial users in the customer base calculations.
- When the time comes for people to choose to be included or not in a district or service area, their choice needs to be explicit and recorded either way.
- Small, early successes are needed in order to gain momentum.
- The County will need to know what property owners want and what financial obligations they are willing to bear to buy infrastructure.
- Lack of infrastructure is holding the area back. Infrastructure would attract a different and better class of development to the area.
- The County should establish a vision for the area to better understand required infrastructure improvements.
- Essentially, the overall feeling is that entities are waiting for the County to take a lead on this process. Once the County does more regarding this process, more entities will support it.



**Small Group Meeting #3 (May 24, 2012)**

Participants at this meeting included two property owners and a property owner group representative.

**Major points that came out of the discussion at Small Group Meeting #3 included:**

- Many businesses are starting to get to the point where they need to expand but cannot because of a lack of water and sanitation infrastructure. One attendee, a commercial property owner, related that he had talked to Dominion Water and Sanitation District, but that at some point may have to install his own private wastewater treatment facility.
- Industrial properties are in the same situation as residential properties; water wells are going dry and problems are severe. There will be a real drive to get something done very soon. They believe that “everyone is in favor of more centralized, regional solutions.”
- Sterling Ranch may be a driver and an opportunity, but is not going to solve everyone’s water problems. Some property owners in the area have a false sense of security and expectations that may not be met.
- It was acknowledged that the formation of a commercial development group is needed. Commercial property owners need to organize and have a spokesperson. Stakeholders could start by having loosely organized meetings on a quarterly basis to share information. It was acknowledged that the County needs business owners to organize themselves so that they can speak with one voice.

Thunderbird Water and Sanitation District, which serves the Indian Creek Ranch subdivision, is willing to participate in discussions about a long-term solution, but if the solution is more development, it contradicts their desire to preserve the lifestyle they have now. They do not want to see suburbia develop in the area and their question is how to balance these competing goals. They also fear that the future larger population of Sterling Ranch will control the future, and marginalize the needs of existing residents. They may have joined the South Metro Water Supply Authority if they had been invited. Overall, they are very interested in participating in future discussions.

## Business Owner Interviews

Ten owners of businesses in the area were interviewed; a list of participating businesses is included in Appendix A.

### Views commonly held by business owners:

- At present, land cannot be developed due to the lack of infrastructure.
- With lack of central water infrastructure, fire protection requirements are prohibitively expensive for businesses wanting to upgrade or expand.

Most interviewees saw a need for businesses to band together. Several were hopeful that Sterling Ranch would be the catalyst for infrastructure development in the area. Otherwise, business owners are considering their long-term options, which include relocating out of the area. One business in particular would like to expand at its current location but cannot due to its leachfield size limitations.

According to one business owner the main obstacle is that the majority of people in the area are uninformed and do not understand the problem, and are therefore not supportive of developing new infrastructure. According to most interviewees, the County should develop a feasibility study for conceptual infrastructure improvements, costs, and financing methods to be able to educate property owners regarding new infrastructure needs and funding assessments.

### Among business owners, there is a strong unanimity of opinion that:

- The lack of infrastructure is a critical issue.
- There is a need to band together, speak with one voice.
- If the County takes steps, stakeholders will follow its lead.



## GENERAL CONSENSUS & RECOMMENDATIONS

There exists among service providers and business owners a desire for the County and local entities to conduct infrastructure master planning, especially for water service and wastewater treatment. Property owners need to take steps now to prepare for long-term, renewable water supplies, and are looking at the County to lead the effort. All involved admit the cost of water is rising and getting farther out of reach. So, small providers and HOAs must prepare to obtain or purchase renewable water rights and secure long-term service. Additionally, water quality concerns and possible regulations for the South Platte River, Plum Creek, and the overall Chatfield Basin watershed may increase pressures for renewable sources on those properties dependent upon on-site water and wastewater treatment systems.

The County should continue to facilitate and otherwise support efforts to create an infrastructure master plan and study the feasibility of extending water and sewer service in the area. The County's role in the process should be that of facilitator, by bringing the various interests together in order to support taking steps toward greater service provision.

***“Water wells are going dry. Problems are severe now. There will be a real drive to get something done.”***

— Stakeholder Meeting Attendee

A primary goal should be to pursue and involve as many people as possible in planning infrastructure improvement projects (regionalization). This will take advantage of economies of scale and may drive down the average cost of service to customers. At the same time, this process should be phased in a manner to ensure infrastructure improvements are cost effective and can accommodate the different needs of the property owners in NWDC. The organizational structure must make it possible to expand the service system incrementally over time. Property owners, businesses, or residential subdivisions can opt in now or later, based on their individual needs and desires. In order to get started, they would have to start small, and grow the system incrementally.

An infrastructure plan will help to accomplish two things: it will provide a planning tool to guide the goals and policies of the County, and it will provide information to landowners and developers regarding potential improvements in the area. Stakeholders are waiting for the County to take the lead regarding next steps, and once the County leadership moves toward greater facilitation regarding infrastructure needs, most stakeholders will support the County's goals.

## Recommendations

Over the life of the outreach process, stakeholders' comments began to coalesce into a strategy for going forward.

The following **actions** were described:

1. Develop a long-range master plan for the development of infrastructure in NWDC. The long-range master plan will include at least two feasibility studies:
  - a. Study the feasibility of extending water service from the Roxborough Water Treatment Plant to the Plum Valley Heights and Louviers residential areas.
  - b. Study the feasibility of placing a wastewater treatment facility on the west side of US 85 across from Chatfield Acres, including a sanitary sewer line extending to Sedalia within or alongside the US 85 right of way.
2. Facilitate Chatfield Acres and Chatfield East partnering with the Centennial Water and Sanitation District to obtain water service.
3. Form a stakeholder group to study the feasibility of establishing water and wastewater infrastructure for greater portions of NWDC not identified in action #1. Include representatives from Sedalia Water and Sanitation District, Thunderbird Water and Sanitation District, Louviers Water and Sanitation District, South Santa Fe Metropolitan District, Dominion Water and Sanitation District, United Water and Sanitation District, and other entities as appropriate.
4. Form a commercial and industrial property owners association whose purpose is to advocate for the needs of business owners along the US 85 corridor.
5. Continue to explore creative funding mechanisms for infrastructure improvements, including limited direct County funding, Colorado Water Conservation Board grants, and bonding mechanisms.



The consensus of the stakeholders is that the need for these actions is urgent and they welcome the County's efforts on their behalf.

## INFRASTRUCTURE NEEDS: BACKGROUND, RELATED STUDIES, AND STAKEHOLDER RECOMMENDATIONS

This section addresses each type of infrastructure discussed during the process, starting with the three that stakeholders considered the most important to address with this study: water, wastewater, and transportation. For each of the first three, there is background information, and descriptions of recent studies and planning efforts, followed by a summary of stakeholder recommendations taken from meeting notes.

### Water

***“Plan for water!”***

— Stakeholder Interview

Douglas County water users primarily obtain their supply from the non-renewable ground waters of four Denver Basin aquifers, including the Dawson, Denver, Arapahoe, and Laramie Fox Hills aquifers. All four aquifers have experienced net declining water levels during the past 20 years as withdrawals exceed recharge levels. Wells in northwest Douglas County generally tap into the Arapahoe and Laramie Fox Hills aquifers. During the period 1995-2000 water levels in the Arapahoe and Laramie-Fox Hills aquifers, which were being used more extensively for municipal water supply, declined by as much as 30 feet per year.<sup>1</sup>

While the aquifers are believed to contain large quantities of water, their levels are depleting at much faster rates than once anticipated. Additional renewable water supplies are necessary to help augment existing ground water resources. Ambitious water conservation efforts should be continued and expanded by all County water users.

Until the late 1990s, residences in the areas outside Roxborough, Sedalia, and Thunderbird Water and Sanitation Districts were supplied by individual wells. At that time, Douglas County assisted the Chatfield South Water District in its negotiations with Denver Water to obtain renewable water service for some property owners in the subdivisions north of Titan Road.

Most other property owners in the study area get their water from individual wells. The NWDC Domestic Wells Map shows the boundaries of service areas for water providers and identifies properties that are served by domestic wells.

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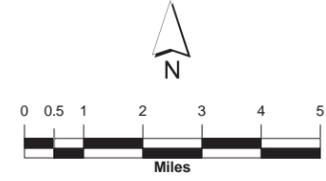
<sup>1</sup> Source: <http://www.douglas.co.us/water/index.html>;

[http://geosurvey.state.co.us/apps/wateratlas/chapter6\\_1page3.asp](http://geosurvey.state.co.us/apps/wateratlas/chapter6_1page3.asp)

# NORTHWEST DOUGLAS COUNTY STAKEHOLDERS, WATER PROVIDERS & DOMESTIC WELLS MAP

**Note:**  
This map represents parcels with existing structures used for residential purposes as of 1/1/2010.  
It does not include parcels where the residential structure has been demolished or converted to other uses.  
8,494 housing units - 8,028 domestic wells

- PARCELS WITH HOUSING SERVED BY DOMESTIC WELL
  - PARCELS OF LAND
  - DOUGLAS COUNTY BOUNDARY
  - MAJOR ROADS
- PRIVATE WATER PROVIDERS**
- A, Beverly Hills Mutual Water Company
  - B, Centennial Water & Sanitation
  - C, Sierra Vista Douglas Mutual Water Company
  - D, View Ridge Mutual Water Company
- TAX AUTHORITY WATER PROVIDERS**
- 1, Arapahoe County Water and Wastewater Authority
  - 2, Aurora Water
  - 3, Bell Mountain Ranch Metro District
  - 4, Castle Pines Metropolitan District
  - 5, Castle Pines North Metro District
  - 6, Castleton Water and Sanitation District
  - 7, Centennial Water and Sanitation District
  - 8, Chatfield South Water District
  - 9, Cottonwood Water and Sanitation District
  - 10, Inverness Water and Sanitation District
  - 11, Louviers Water and Sanitation District
  - 12, Meridian Metropolitan District
  - 13, Parker Water and Sanitation District
  - 14, Perry Park Water and Sanitation District
  - 15, Pinery - Denver SE Suburban
  - 16, Ravenna Metro District
  - 17, Roxborough Park Metropolitan District
  - 18, Sedalia Water and Sanitation District
  - 19, Silver Heights Water and Sanitation District
  - 20, Southgate Water District
  - 21, Southwest Metro WSD
  - 22, Stonegate Village Metro
  - 23, Thunderbird Water and Sanitation District (4/3/08)
  - 24, Town of Castle Rock
  - 25, Town of Larkspur
  - 26, Westcreek Lakes Water District



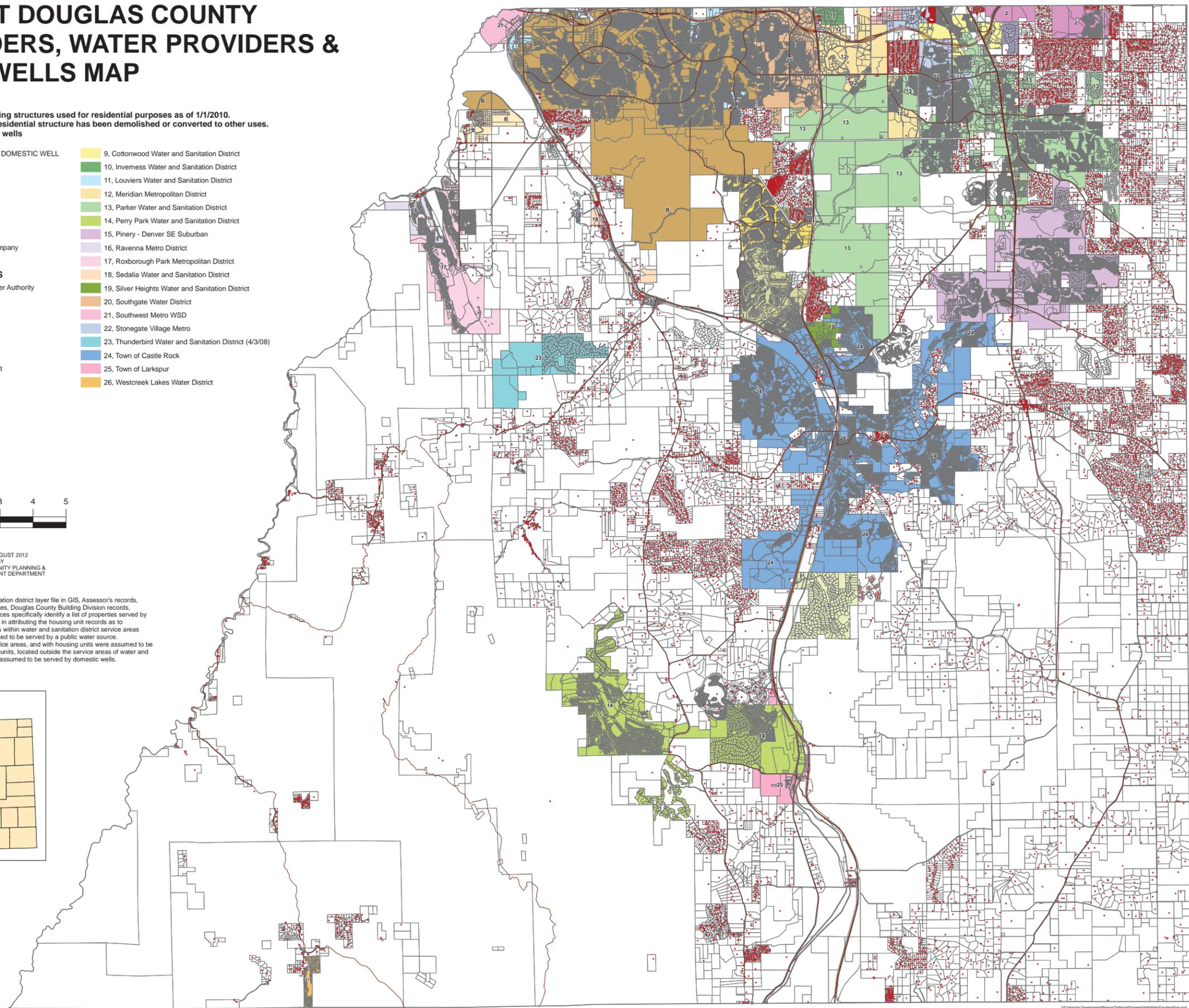
MAP GENERATED AUGUST 2012  
PREPARED BY  
DOUGLAS COUNTY COMMUNITY PLANNING &  
SUSTAINABLE DEVELOPMENT DEPARTMENT

**Sources:**  
The sources for the report include the water and sanitation district layer file in GIS, Assessor's records, Douglas County Information Resource Group databases, Douglas County Building Division records, and City and Town building records. None of the sources specifically identify a list of properties served by domestic wells so some assumptions were also made in attributing the housing unit records as to water service. All platted properties with housing units within water and sanitation district service areas and mutual water company service areas were assumed to be served by a public water source. Some metes and bounds properties, within those service areas, and with housing units were assumed to be served by domestic wells. All properties with housing units, located outside the service areas of water and sanitation districts and mutual water companies were assumed to be served by domestic wells.



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Source: Douglas County Community Planning & Sustainable Development Department, 2012.



Efforts are underway by Douglas County, water supply providers, and other entities to find solutions to the current water supply limitations.<sup>2</sup>

These **water supply efforts** include:

- Work by multiple water provider consortiums to tackle County water supply and conservation issues.
- Creation of a Douglas County Water Conservation Program that includes a comprehensive indoor and outdoor water audit of all county-owned facilities and provides technical assistance to smaller water providers in the creation and implementation of their own water conservation plans.

## **Recent Studies & Planning Efforts**

### ***Regional Water Conservation Plan, Douglas County, May 2011***

This document is a compilation of the water conservation plans of 16 water providers who participated (out of 20 that were invited to participate in the project). Douglas County generally has limited and unreliable surface water supplies. The region is heavily dependent on nonrenewable Denver Basin groundwater; therefore water conservation is essential to helping the region achieve long-term sustainability. The participating water providers have implemented various water conservation measures to manage water demands and conserve water. They have also stepped up water conservation efforts in recent years. Taking into account water savings attributed to plumbing code provisions and existing and planned water conservation programs, the 2020 demand is expected to be 951 acre-feet per year (AFY) less than it would have otherwise been, a savings of 12.7 percent. The conservation savings to providers for conserved water supply and delivery infrastructure based on the potential savings in 2020 is an estimated \$10.9 million.<sup>3</sup>

### ***Water, Infrastructure and Supply Efficiency (WISE) Partnership***

Some members of the South Metro Water Supply Authority are exploring a partnership with Aurora Water and Denver Water to supply customers with more water while minimizing the need to buy new water rights. If approved, the Water, Infrastructure and Supply Efficiency (WISE) partnership will provide “new supply” by combining unused capacities in Aurora Water’s Prairie Waters Project with unused water supplies from Denver. During the years Denver and Aurora have

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<sup>2</sup> Source: <http://www.douglas.co.us/water/index.html>

<sup>3</sup> Source: [http://www.douglas.co.us/water/Water\\_Consevation.html](http://www.douglas.co.us/water/Water_Consevation.html)

unused water, participating entities from the South Metro Water Supply Authority will be able to buy the water to help reduce the reliance on nonrenewable groundwater. Although much work remains, the plans should be finalized in December 2012.<sup>4</sup>

**Douglas County WaterSmart Feasibility Study**

In early 2011, under the leadership of the Douglas County Water Resource Authority (DCWRA), a group of area water entities came together to initiate regional water infrastructure planning efforts. A feasibility study is now underway and the pursuit is intended to utilize the considerable work performed to date by members of the South Metro Water Supply Authority to complete water infrastructure planning for the region, and move on to the analysis of regional economics and financial considerations of water solutions in the Douglas County area.



The Douglas County WaterSmart Feasibility Study is being funded in part by a \$600,000 grant from the Colorado Water Conservation Board. This regional effort is guided by representatives from the South Metro Water Supply Authority, the Rural Water Authority of Douglas County, the Douglas County Board of County Commissioners, and the Douglas County Water Resource Authority.<sup>5</sup>

**Members of DCWRA include:**

- Arapahoe County Water & Wastewater Authority
- Castle Pines Metropolitan District
- Castle Pines North Metropolitan District
- Town of Castle Rock
- Castleton Water & Sanitation District
- Centennial Water and Sanitation District
- City of Castle Pines
- City of Lone Tree
- Cottonwood Water and Sanitation District
- Dominion Water and Sanitation District
- Douglas County Government
- East Cherry Creek Valley Water & Sanitation District
- Franktown Business Area Metropolitan District
- Inverness Water and Sanitation District
- Meridian Metropolitan District
- North Douglas County Water and Sanitation District
- Parker Water and Sanitation District
- Pinery Water and Wastewater District
- Roxborough Water and Sanitation District
- Stonegate Village Metropolitan District
- The Canyons

<sup>4</sup> Source: <http://www.denverwater.org/SupplyPlanning/WaterSupplyProjects/WISE/>

<sup>5</sup> Source: <http://www.dewater.org/pages/news/2011/kickoff.html>

**South Metro Water Supply Authority**

The South Metro Water Supply Authority (SMWSA) was founded in 2004 to bring together many smaller water entities in south Denver to create a regional water authority. The SMWSA stemmed from the Douglas County Water Resource Authority (DCWRA), which started in 1992, and the South Metro Water Supply Study Board, formed in January 2000, when other larger water providers requested to work with one regional entity.<sup>6</sup>

**Members of SMWSA** include:

- Arapahoe County Water and Wastewater Authority
- Castle Pines Metropolitan District
- Castle Pines North Metropolitan District
- Centennial Water and Sanitation District
- Cottonwood Water and Sanitation District
- East Cherry Creek Valley Water and Sanitation District
- Dominion Water and Sanitation District
- Inverness Water and Sanitation District
- Meridian Metropolitan District
- Parker Water and Sanitation District
- Pinery Water and Wastewater District
- Rangeview Metropolitan District
- Roxborough Water and Sanitation District
- Stonegate Village Metropolitan District
- Town of Castle Rock

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<sup>6</sup> Source: <http://www.southmetrowater.org/>

### **United Water and Sanitation District**

United Water and Sanitation District is a Title 32 Special District formed to provide raw water and water infrastructure services to existing water providers along Colorado’s Front Range. United constructs wells, pipelines, reservoirs, pumping facilities, and treatment plants for its municipal and public utility clients.

#### **Existing projects in Douglas County include:**

- Chambers Reservoir.
- Bell Mountain Ranch well field.
- United-Sutton Reservoir and Diversion Structure.

### **Stakeholder Recommendations**

The Southern Connector was identified as an opportunity for creating a utility corridor running east-west, connecting Roxborough Water and Sanitation District water distribution to Plum Valley Heights and Louviers, and serving additional properties along the way. Roxborough Water and Sanitation District declared a willingness to consider adding new customers to its service area. The district is about to begin an analysis of the size of its planned new water treatment plant and the timing is good for including this possibility in the analysis.

US 85 from Sedalia to Titan Road was also identified as a logical utility corridor running north-south between Sedalia and Titan Road, possibly connecting to Louviers, and serving additional properties along the way.

Finally, Centennial Water and Sanitation District expressed a willingness to consider extending service to residents in Chatfield Acres and Chatfield East.

### **Wastewater**

The majority of residences and businesses in the study area are on septic systems (on-site wastewater treatment systems, or OWTS). Some exceptions include the Roxborough Water and Sanitation District and the Louviers Water and Sanitation District.

Septic systems have an inherent limitation in that the size of the leach field is heavily influenced by the number of occupants and the size of the facility it serves. Many commercial or industrial properties in the area are quite small when taking into account the required size of a leach field. When a business outgrows its present leach field size, the business owner has the choice to remain stagnant, add acreage, or

***“We’re pleased within our district, but we need to move from taking care of our own and start working with others.”***

— Stakeholder Interview

relocate to a larger site. The amount of wastewater produced and the kind of soil at a site determine how large the soil treatment area (leachfield or drainfield) must be. If a business expands and increases its flow, the OWTS may need to be expanded. If the area is too small for an expansion, a business might consider acquiring additional property or relocating the business altogether.

## Recent Study

### ***Wastewater Collection and Treatment, US Highway 85 Corridor, Tetra Tech, June 2009***

The study evaluated long-term wastewater utility needs in the US 85 Corridor and identified preferred alternatives for a wastewater collection and treatment system that would address water quality in the Chatfield Reservoir watershed. Ten alternatives were evaluated and three were selected as preferred alternatives. Financing options were studied for the three preferred alternatives, recognizing that the financial burden on citizens must be kept to a minimum. The report recommended that debt for construction of the project improvements would have to be funded by future growth.

The report recommended the formation of an “authority” because of advantages in terms of management and financing. According to the report, implementing the plan’s “recommendations will address the current wastewater infrastructure deficiency, while enabling the County to realize long-term water quality protection and reuse of the water resources within the study area. Important next steps involve honing in on special financial and engineering approaches, organization of a governmental entity to facilitate the project and institutional issues, political considerations, and public outreach; all recognizing opportunities in the study area and potential limitations.”<sup>7</sup>

### **Stakeholder Recommendations**

US 85 was identified as a utility corridor, particularly with regard to wastewater collection for properties along US 85, from Sedalia to a possible location for a wastewater treatment plant north of Titan Road. The stakeholder recommendations are supported by the recommendations of the Wastewater Collection and Treatment study by Tetra Tech, referenced above. Both emphasize the need for the two utility corridors, with only slight differences regarding the location of a possible wastewater treatment plant near US 85 north of Titan Road. Additionally, some stakeholders advocated for the formation of a greater authority to coordinate these needs.

***“If you want to eat dinner, you need to start preparing the meal now.”***

— Stakeholder Interview

<sup>7</sup> Source:

[http://www.douglas.co.us/commissioners/adhoc/documents/Wastewater\\_Collection\\_and\\_Treatment\\_US\\_85\\_Corridor\\_6-27.pdf](http://www.douglas.co.us/commissioners/adhoc/documents/Wastewater_Collection_and_Treatment_US_85_Corridor_6-27.pdf)

## Highways and Roads

The US 85 Corridor has been undergoing widening and other improvements for the past ten years. Instead of completing projects all at once, improvements are being done in short segments in order to match the limited local, state, and federal funding that is available for this corridor. There are several segments between Highlands Ranch Parkway on the north end and Meadows Parkway on the south (Castle Rock) that are not scheduled to be constructed until 2035. Currently the Colorado Department of Transportation (CDOT) has no funding or environmental clearance identified for widening US 85 from four to six lanes from C-470 to Highlands Ranch Parkway and south of Titan Road (although the Douglas County 2030 Transportation Plan shows a need for widening).

The Douglas County 2030 Transportation Plan also identifies the need for improving several County roads in NWDC, including Titan Road, Rampart Range Road, Roxborough Park Road, and sections of Waterton Road within both Douglas and Jefferson Counties. Additionally, one new road, the Southern Connector, is being proposed that will provide an additional access in the area. The approved Sterling Ranch Planned Development includes extension of the Southern Connector through the property such that it connects with Waterton Road at Rampart Range Road. Although the County is currently conducting an alignment study for the Southern Connector, no County funds have been identified over the next ten to fifteen years to construct this new roadway.

In Spring 2012, the County initiated the Northwest System Level Study (SLS) that will assess traffic impacts associated with planned development in NWDC on three state highways. The County is working closely with CDOT and Jefferson County in order to develop the traffic model, assess traffic impacts, identify mitigation costs and establish priorities. More information regarding the Southern Connector and the Northwest SLS can be found on the pages that follow.

### Recent Studies & Planning Efforts

#### ***Conceptual Alignment Feasibility Study for the Southern Connector***

The objective of the study is to define a preferred alignment for a limited portion of the Southern Connector from the eastern boundary of the Sterling Ranch property to US 85; more specifically between Moore Road on the west and US 85 on the east (either at Airport Road, south of Louviers or at Main Street, north of Louviers). Selecting the preferred alignment may be challenging because of varied stakeholder interests and because the alignment will cross the DuPont property that was used as a munitions and explosive factory in the past. There are concerns regarding both preserving the wildlife corridors and the need to minimize impacts to the built environment while preserving

community values; all of these concerns will need to be taken into consideration when selecting the most appropriate alignment.

### **Northwest System Level Study (SLS)**

The purpose of this study is to assess transportation impacts associated with planned future development in NWDC. The study will focus on looking at future traffic forecasts and impacts on three state highways, US 85, C-470, and SH121 or Wadsworth Boulevard; all of which are within and outside of Douglas County and will likely be impacted the most from future development. The boundary limits of the traffic study along these state highways are as follows: the US 85 Corridor from SH 67 to Mineral Avenue, the C-470 Corridor from Kipling Parkway to Lucent Boulevard, and State Highway 121 from Waterton Road to C-470.

#### **The primary objectives of this system level study are to:**

- Prepare long-term traffic forecasts for the three corridors, which will take into account the anticipated full build-out of Sterling Ranch (assumed to be 2035 for the traffic modeling purposes).
- Estimate the proportion of traffic forecasted from anticipated development that would use those improvements in northwest Douglas County.
- Evaluate and prioritize the needs for improvements on the three NWDC state highway corridors – based on accommodating 2035 traffic forecasts (which will include all corridor background traffic along with full build-out of Sterling Ranch in 2035).
- Develop improvement alternatives and prepare conceptual cost estimates associated with the identified improvements.

***“The question is how to balance competing goals.”***

— Stakeholder Meeting Attendee

### ***Douglas County 2030 Transportation Plan, LSA, November 2009***

This is an update to the 2020 Transportation Plan. It creates a vision for a multi-modal transportation system, including transit and bicycle options. It identifies future transportation needs, and provides technical and policy direction for decisions related to planning future transportation facilities and improvements.

### **Stakeholder recommendations**

The primary roadway improvement identified by the majority of stakeholders, during meetings held for this project, was the Southern Connector, a proposed road that will one day connect with Waterton Road to the US 85 Corridor. A portion of the alignment for this new road is currently being studied by Douglas County, namely for the section of new roadway that is between US 85 and Moore Road. All of the

improvements identified by the stakeholders are already included in the Douglas County 2030 Transportation Plan.

## Bicycle

The Douglas County 2030 Transportation Plan includes recommendations to add bicycle lanes to Titan Road, Rampart Range Road, Waterton Road, Roxborough Park Road, and the Southern Connector when it is constructed. Additionally, the Douglas County 2030 Transportation Plan identifies the need to accommodate bicycles along the US 85 by providing a combination of paved shoulders or a separate bicycle trail along this corridor that will connect to the C-470 Trail.

The 2030 Transportation Plan provides additional information regarding the Countywide Bicycle Vision Plan for 2010, 2020, and 2030 time frames.

### Stakeholder recommendations

Stakeholders identified the need to continue improvements for bicycle use, mainly the expansion of shoulder widths on Titan Road.

## Other Infrastructure Needs

### **Storm Water**

Existing stormwater management facilities in NWDC generally consist of unstabilized natural drainage ways, roadside swales or ditches, and culverts to convey runoff under driveways and roadways. More extensive infrastructure and underground storm sewer systems exist in the Roxborough area, in some areas of industrial development along the US 85 corridor, and within recently widened sections of US 85.

Some of the existing stormwater management facilities need to be upgraded or replaced as they are likely inadequate to handle stormwater runoff under current development conditions. As this area of the County develops, there will be a need for additional or upgraded infrastructure, including channel stabilization improvements, storm sewer systems, culverts, and detention and water quality ponds.

Two studies, prepared cooperatively by Douglas County and the Urban Drainage and Flood Control District, recommend conceptual level improvements for major drainageway stabilization and conveyance improvements, as well as roadway crossing upgrades at drainage way crossings.<sup>8</sup>



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<sup>8</sup> The Plum Creek Watershed Outfall Systems Planning Preliminary Design Report is available at: <http://www.udfcd.gisworkshop.com/pdfs/Plum%20Creek%20OSP%20Ph%20B%202003.pdf>  
The Willow Creek, Little Willow Creek, and East Willow Creek Watersheds Outfall Systems Plan Preliminary Design Report is available at:

Douglas County Engineering has also recently completed the Stormwater Conveyance and Regional Detention - Water Quality Feasibility Study for Sedalia, Colorado. This study was conducted to identify potential regional solutions for stormwater quality and detention, and to identify and address local drainage issues for Sedalia. This study was completed in April 2012.

Additional infrastructure requirements will be defined over time with new development and land use submittals through the required drainage reports and studies.

### **Electric**

The area is served by the Intermountain Rural Electric Association (IREA) and Xcel Energy. The IREA has 139,000 members in its 5,000 square-mile service territory (within ten counties to the east, west and south of Denver).

Stakeholders did not comment on the need for additional electrical infrastructure.

### **Internet**

The area is served by cable, satellite, and dial-up Internet providers.

Stakeholders identified the need for additional bandwidth to support economic development.

### **Gas**

Xcel Energy and Black Hills Energy serve parts of the study area. Other parts are limited to the use of propane.

Stakeholders did not comment on the need for additional gas infrastructure.

### **Freight Railroads**

Two freight railroads run through the area, Union Pacific and Burlington Northern Santa Fe. Their rights-of-way isolate parts of NWDC and often impede east-west automobile traffic, particularly in Sedalia where they tend to block automobile traffic on SH 67.

A small number of stakeholders suggested that the County look at relocating one or both of the railroad tracks and rights-of-way to minimize the way they isolate portions of the study area. Establishing “Quiet Zones” has been suggested for the railroad rights-of-way as they pass by Castle Pines Village and through Sedalia.

**“It’s the biggest infill site left in the metro area.”**

— Stakeholder Interview



**Transit**

The Regional Transportation District's (RTD's) southernmost Light Rail Transit station on the southwest corridor is located at US 85 and Mineral in Littleton. The FasTracks program includes a southern extension of the Light Rail Transit line from Mineral to C-470, then east to Lucent Boulevard, terminating at a 1000-car park-n-Ride facility. An intermediate station located at the southeast corner of the C-470 and US 85 interchange is being considered, but is not yet a part of the FasTracks plan.

One stakeholder interviewed expressed a desire to have the RTD's southwest light rail line extended south along US 85 to Titan Road. This is a long-term proposition that would require either RTD's district service boundaries be expanded or a new regional transportation authority be created to serve the area.

**Landfills and Disposal Needs**

Located approximately one-half mile north of Sedalia along U.S. Highway 85, Sedalia Recycling Center and Depository (SRCD) is a solid waste disposal site for non-hazardous, non-rotting waste, along with a limited citizen's recycling drop-off area. SRCD has been in operation since 2006 and is owned by Sedalia Land Company (a Waste Connections Inc. company).





## SUMMARY – NEXT STEPS

The study revealed prevailing attitudes and impressions of the stakeholders who reside, own property, or have businesses in NWDC. Many expressed concerns about the infrastructure and the ability of existing service providers to address future needs of the area; in some cases, participants were not aware that other stakeholders felt the same way.

The study focused on ideas for meeting infrastructure needs. Many participants acknowledged the need for reliable and renewable sources of water to the area – for residential users, industrial users, and fire protection. The provision of reliable and renewable sources of water is the top concern as the total loss of access to potable water would be catastrophic to property values. Wastewater collection and treatment is the next most critical issue. The lack of centralized sewer collection infrastructure limits businesses' ability to expand and the area's ability to attract new businesses.

A majority of stakeholders understand that the path to greater viability and sustainability involves the provision of infrastructure and making the area more attractive to new development to help pay for the infrastructure; the area is well positioned to access regional markets. At the same time, it will be important to protect the high quality of life that many in the area enjoy today.

The stakeholders' consensus is that there is a need for the County to provide leadership in the form of facilitating further conversations and cooperation concerning infrastructure among stakeholders.

## **APPENDIX A: INTERVIEWS**

### **List of Interviewed Entities**

Castle Pines Commercial Metro Districts 1-5  
Centennial Water and Sanitation District  
CDOT Region 1  
Chatfield Community Association  
Chatfield East HOA  
Chatfield Watershed Authority  
Cherokee Ridge Estates Metro District  
City of Castle Pines  
Douglas County Libraries  
Intermountain Rural Electric Association  
Louviers Water and Sanitation District  
Northern Douglas County Water & Sanitation District  
Northwest Douglas County Economic Development Corporation  
Plum Valley Heights  
Roxborough Water and Sanitation District  
Sedalia Property Owners Coalition  
Sedalia Water & Sanitation District  
Solitude Metro District  
South Santa Fe Metro Districts 1&2  
South Suburban Park & Recreation District  
Sterling Ranch Development  
Titan Road Business Association  
United Water and Sanitation District  
West Douglas County Fire Department  
Western Douglas County Citizens' Association

## Summary of Answers to Interview Questions

### Question #1

Do you see current and future area service needs (i.e. water, wastewater, storm water, transportation, etc.) being met with infrastructure and services provided by the current group of service districts/providers?

#### **Answer:**

About half of the interviewees emphatically said “no.” Others responded by addressing only their subdivision or district’s needs. In general, it would appear that current needs are being met, but barely. Again, about half said that existing providers couldn’t meet future needs. One person said that the Centennial Water District would be the logical provider to build on. Water and sanitary are the critical elements of infrastructure. If these two can be solved, other utilities would follow. There were very few comments about transportation infrastructure.

### Question #2

If not, do you want to see such services expanded to aid long term economic growth in the area?

#### **Answer:**

Half of the respondents said they were in favor of expanding services to aid long-term economic growth. Others saw expansion of infrastructure as a way out of the current problems (lack of a renewable source of water and the possibility of prohibitions on septic systems) but were neutral on the growth question. Two said that the cost of any expansion should be borne by new development. Existing residents do not have the funds to build new infrastructure and are very cost-sensitive.

### Question #3

If so, do you think the current service districts/providers are able to do this?

#### **Answer:**

About a third said no, not with the current service providers. Other comments: No one has the funds to pay for improvements or expansion; Perhaps Centennial could provide the infrastructure; The County needs to take a stronger role; Cooperation of districts and property owners will be difficult to obtain.

#### **Question #4**

What obstacles do you see to the efficient development of lands/parcels that currently are undeveloped?

**Answer:**

Obstacles include:

- Fragmentation of older developments
- Lack of funding
- Lack of renewable water
- Tendency to get stuck between levels of government, agencies
- Accessibility
- Development review process, requirements
- Railroads
- Inability to expand infrastructure

#### **Question #5**

Are you satisfied with the current delivery of services (water, wastewater, storm water, transportation, etc.) in the area? If not, why?

**Answer:**

About half said no and had to do with water supply, sanitation, public transportation, watershed contamination, train crossings, and storm drainage. About a third responded that the current condition is satisfactory. One said that they needed to begin cooperatively working with others and another said that it would be difficult to do anything because the people in the area are very self-reliant.

#### **Question #6**

Is the current method of delivering services (water, wastewater, storm water, transportation, etc.) sustainable over the long term?

**Answer:**

About half responded that the water infrastructure is not sustainable. Some also mentioned that sanitation infrastructure is not sustainable. A few responded that transportation infrastructure is inadequate. A few mentioned that the answer to funding might be additional growth, and one asserted that sustainability may be possible if residential development is held in check. Most recognize that the area will need a revenue stream to pay for improvements. The county needs to assume a larger role.

#### **Question #7**

Are there natural alliances or partners with which your organization would consider joining if there were benefits to doing so? Benefits

might include: the ability to provide infrastructure to currently undeveloped parcels and/or cost savings (operational and administrative) due to improved efficiencies.

**Answer:**

Almost all respondents said that they were willing to cooperate with others and cited many examples of cooperative agreements already in place. Most said they would be willing to be a part of organizing a cooperative process. In general, there seemed to be a fair amount of optimism about groups working together to solve infrastructure needs. One cautioned that the challenge would be to not make it too big - that what was needed was an appropriate and consistent vision.

**Question #8**

Are you aware of the Northwest Douglas County Economic Development Corporation and what do you think they should be doing to promote the economic development in the area?

**Answer:**

Half of the interviewees were aware of the NWDCEDC and half were not. Two were not sure. (It was only 3-4 months old at the time of the interviews.)

**Question #9**

What other types of improvements would you like to see that might aid long-term economic growth for the area (i.e. high speed internet, greater bandwidth, light rail, transportation improvements, etc.)?

**Answer:**

Almost all respondents had infrastructure improvements that they would like to see. Responses included: realignment of the railroads, higher education, water and wastewater utilities, other (non-wet) utilities, light rail transit (to Titan Road), highways, streets, left turns, bike lanes, high-speed internet, bandwidth, parks and recreation facilities, quiet zones at railroad crossings, bike trails, intersection improvements, and improved consistency in terms of highway travel lanes.

**Question #10**

What do you see as the future of development in the area, if any?

**Answer:**

Two thirds of the interviewees responded to this question. The ones that did respond said they thought that future development should include: aerospace, telecom, medical, healthcare, and manufacturing uses. Landlocked areas (due to the railroad tracks) are obstacles. The area is well positioned geographically, and has many advantages such as access to regional transportation. It would be poised to experience economic development if it had certain infrastructure (wet utilities)

improvements. Otherwise, its potential for growth will remain very limited.

### **Question #11**

What markets could it serve?

#### **Answer:**

Only about half responded to this question. Their responses indicated that they thought there were markets for large lot commercial, industrial, high-end industrial, welding, piping, trailers, buses, office, medical office, retail, services, and residential (west of US 85 only).

### **Question #12**

What kinds of land uses or businesses should be developed or promoted? What kinds or types of businesses do you think would be a good 'fit' for the area?

#### **Answer:**

Responses were mixed. Either people thought that it was time to try something different from what is there today by responding to the regional markets, or that new development should reflect what is already there. Responses included: residential development, college or office park, (migrating away from industrial), service business and light manufacturing, consulting, professional, managerial, high-tech manufacturing, and recreation-related businesses.

Responses by location, were:

- West of SH85: residential
- DuPont Properties: office park or college
- Along the SH85 corridor: industrial, full service retail, no residential

### **Question #13**

Regarding businesses and service providers, what thoughts do you have regarding possible ways to expand, augment, and consolidate their networks?

#### **Answer:**

Nine respondents were in favor of some kind of consolidation or cooperation between districts or providers. They also said that consolidation of the various water and sewer systems represented the most significant challenges. A significant number said that the area will need regional solutions to its infrastructure challenges and must look to consolidation to realize whatever efficiencies of scale may be possible. One responded that no consolidation was necessary. Seven did not respond.

## **List of Participating Businesses**

Baron High-Tech Precision Manufacturing

Blade Runners Svc Inc.

CDI

DCP Consulting

Farm Bureau Insurance

Fulcrum One

Group Medical Marketing, Inc.

Intermountain Rural Electric Authority

Outdoor Storage

Realty Management Group

Split Rail Fence & Supply Company

Superior Metal Products

## **APPENDIX B: FINANCING AND FUNDING OPTIONS**

*Although the stakeholders did not specifically address financing and funding options during the public outreach process, a constant theme was the discussion of how to fund infrastructure improvements in NWDC without being dependent upon new development alone. The following discussion offers such ideas and also summarizes some recent efforts the County has undertaken to creatively finance and initiate infrastructure improvements in the area.*

As noted, some NWDC stakeholders see that the lack of water, wastewater and transportation infrastructure is not only restricting existing property owners' ability to develop and expand, but is limiting the County's efforts to attract new businesses. The organic development of NWDC has created a fragmented land use pattern that makes the provision of basic services challenging at best. Not surprisingly, there are numerous service providers, individually serving the needs of their own constituents, but collectively creating the potential for overlap and duplication. The need for a regional solution to infrastructure investment appears to have some support among stakeholders; however, a regional funding strategy will likely necessitate the establishment of a formal entity, or umbrella organization to implement it.

A framework for implementing infrastructure improvements in NWDC should be established to ensure the most efficient and cost-effective delivery of needed services. This implementation framework should include guiding principles to serve as a checklist to ensure equitable participation from each participating entity.

**Financing and funding principles** could include, but not be limited to:

- Equitable risk and revenue sharing:
  - Identify those stakeholder entities who clearly benefit from proposed improvements
  - Quantify “gaps” between traditional funding sources and needs
  - Develop creative, but practical funding mechanisms to “fill gaps”
- Portfolio of assets:
  - Understand that every improvement will have differing benefits and rate of return
  - Prioritize improvements by cost vs. level of impact and benefit
  - Early improvements should have the highest cost-to-impact-benefit ratio, identify the “low hanging fruit”
  - Use high-return investments to assist lower-return investments
- Leveraged investment:
  - Infrastructure improvements should leverage private investment
  - Ensure that infrastructure investments do not outpace private development growth (match funding with system phasing)

Infrastructure improvements to support both existing and new development will likely be funded through both regional and local sources, and through both public and private sector initiatives. The cost of this infrastructure will consist of both capital costs to construct improvements and annual operating and maintenance (O&M) costs.

The remainder of this section summarizes potential funding sources and mechanisms that could be utilized to fund infrastructure improvements in NWDC.

### **Improvement District**

The most applicable improvement districts for a regional funding solution in NWDC would be either a Local Improvement District (LID) or

Public Improvement District (PID). The improvement district could serve as an overlay special district, incorporating most, if not all, of the current service providers in NWDC, and could be the umbrella entity to construct, install, operate and maintain necessary infrastructure improvements. These could include transportation, water, and wastewater facilities.

As an assessment district, the LID would be funded through an assessment on property, typically based on a formula for benefit received. LIDs can impose a sales tax within the district, which can also be used to fund operations and maintenance. Improvement costs are typically financed through special assessment bonds issued by the county within which the LID is located.

As a taxing district, the PID would be funded through a property tax mill levy. PIDs can issue general obligation and revenue bonds and can also enter into Intergovernmental Agreements (IGAs).

### **Building Authority**

A building authority could be formed to act on behalf of the County to construct infrastructure improvements in NWDC, so long as those improvements are dedicated to the County on behalf of which the authority is acting. Improvements are typically financed through a type of lease-purchase mechanism called Certificates of Participation (COPs). COPs are sold to investors and represent a proportionate interest in the right to receive revenues paid by the lessee (the governmental entity) to the lessor (the building authority).

### **Water Authority**

This type of authority is empowered to develop and operate water systems. They can be created by “any combination of municipalities, special districts or other political subdivisions” provided that each of the participating entities (existing service providers) is authorized separately to own and operate such systems. The participating entities enter into IGAs to establish organizational structures and provisions for disposition and distribution of assets and property. The existing South Metro Water Supply Authority (SMWSA), while incorporating service providers outside of NWDC, could nonetheless provide a funding conduit for water and wastewater improvements.

### **Enterprises**

An enterprise is a government-owned business authorized to provide services to the public on a user charge basis, similar to the operation of a commercial enterprise. An enterprise can issue its own revenue bonds, but must receive less than 10% of its annual revenue in grants from all Colorado state and local governments. An example of this type

of entity would be the Colorado Bridge Enterprise (CBE), formed in 2009, to finance, repair, reconstruct and replace bridges designated as structurally deficient or functionally obsolete, and rated “poor.” The CBE imposes a bridge safety surcharge on vehicle registration based upon vehicle weight to fund these efforts.

### **Colorado State Agencies**

Both the Colorado Water Conservation Board (CWCB) and the Colorado Water Resources and Power Development Authority (CWRPDA) were created by the General Assembly to assist cities, towns and districts, in developing, operating and maintaining water and wastewater system infrastructure. Both agencies offer grant and loan programs to implement a wide variety of projects. Any of the potential mechanisms described above could apply for such loans and grants.

### **Public-Private Initiatives**

The foundation for any public-private solution to funding improvements in a planning area will be the capture of revenues from new development. These revenues could be in the form of taxes (sales, property, use, lodging, etc.), fees (impact fees, developer fees, etc.), or voluntary contributions. As stated earlier, there is anticipated to be a significant level of new development within NWDC, all of which could be expected to generate revenue for infrastructure improvements. Public-private initiatives, which potentially could be used to assist in funding infrastructure improvements in NWDC, include:

#### **Revenue Sharing**

This initiative is a potential multijurisdictional revenue source, which requires local entities to enter into IGAs as a means to share the costs of funding infrastructure improvements. These agreements would allow participating jurisdictions to dedicate tax revenues from new development (property, sales, use, lodging, etc.) to fund improvements and O&M costs. One of the important advantages of the revenue sharing concept is the relative ease and quickness with which it can be implemented. Conversely, a multijurisdictional revenue sharing agreement could be as difficult as the number of participating entities and interests involved.

#### **Infrastructure Impact Fees**

These are fees imposed on new development, the revenue from which is dedicated to new infrastructure improvements. The primary advantage to impact fees is that the revenues generated are tied directly to improvements made. As impact fees are increased, there is the potential to create a disincentive to new development, or a competitive disadvantage relative to other communities.

### **Developer Fees**

In many planning areas, private sector interests have self-imposed impact fees to provide upfront funding for infrastructure improvements. These are fees that could be reimbursed as additional users join the infrastructure system, or capitalized into the sale price of property as it is developed.

### **Metropolitan Districts**

While several metropolitan districts already exist in NWDC, perhaps a consolidated district could be overlaid onto existing districts to provide additional funding potential for regional infrastructure improvements.

### **Financing and Funding Conclusion**

In summary, the use of *several* regional and public-private local sources will likely be required to fund the cost of building infrastructure to support new development growth in NWDC. To the extent that participating jurisdictions and service providers can work with private sector development interests to create true and equitable partnerships, resulting infrastructure improvements can be implemented strategically and cost-effectively.

As NWDC communities face increasing economic development pressures along the U.S. 85 Corridor, a true public-private partnership with a unified vision, broad stakeholder commitment, and shared risk will be critical in funding and financing needed infrastructure.