

The Economics of Land Use



Berkeley
Sacramento
Denver

I-70 Corridor Economic Assessment Final Presentation

presented to

I-70 Regional Economic Advancement Partnership

presented by

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December 9, 2010

TEAM OVERVIEW

Economic & Planning Systems

- Full service urban economics consulting firm
- Offices: Denver, Berkeley, Sacramento
- Expertise:
 - Real estate economics
 - Public finance
 - Fiscal and economic impact analysis
 - Land use policy
- Focus:
 - Completed numerous economic development analyses and draw from a depth of experience and applications
 - Integration of data analysis with public policy
 - Understand civic needs of public sector and feasibility limits of private sector



Vision Land Consultants, Inc.

- Full service civil engineering and construction management consulting firm
- Offices: Golden, Granby, Rifle
- Expertise:
 - Civil Engineering
 - Structural Engineering
 - Construction Management
 - Program/Project Management



PROJECT GOALS AND SCOPE OF WORK

Project Goals

- Provide framework for market based growth potentials in the Corridor.
- Identify gaps in infrastructure systems that are impediments to growth.
- Create an assessment that can be used by Corridor stakeholders to align actions and improve the existing conditions to position the Corridor for growth.

Scope of Work

- Corridor Market Analysis
 - Growth Projections
 - Regional Development Trends
 - I-70 Market Capture of Development
 - Land Use Plans and Economic Development Plans
- Existing Infrastructure Conditions
 - Existing and Planned Capital Improvements

Scope of Work (cont.)

- Economic Assessment
- Mid-Course Presentation to BOCC's
- Action Plan
 - Competitive Advantages/Disadvantages
 - Gaps and Needs
 - Recommended Actions
- Final Report and Presentation

MARKET ANALYSIS

Study Corridor Employment by Town/Place

	2001	2009	Change 2001-2009		
			Total #	Ann. #	Ann. %
I -70 Corridor					
Aurora	254	605	351	44	11.5%
Bennett	417	786	369	46	8.2%
Byers	264	321	57	7	2.5%
Deer Trail	71	100	30	4	4.5%
Strasburg	452	538	86	11	2.2%
Watkins	193	714	521	65	17.8%
Grand Total	1,651	3,068	1,418	177	8.1%
Arapahoe County	789	1,505	716	90	8.4%
Adams County	862	1,563	701	88	7.7%

Source: Colo. Dpt. of Labor and Employment; Economic & Planning Systems

Study Area Growing Industries, 2001-2009

Growing Industries	Change 2001-2009		
	Total #	Ann. #	Ann. %
Construction	148	19	10.8%
Manufacturing	128	16	15.9%
Retail Trade	122	15	7.4%
Transportation and Warehousing	86	11	8.4%
Administrative and Waste Services	293	37	12.9%
Educational Services	185	23	5.1%
Accommodatins and Food Service	100	12	9.4%
Total	1,062	133	
% of Corridor Employment Growth	75%		

Source: Colo. Dpt. of Labor and Employment; Economic & Planning Systems

Corridor Location Quotient

Corridor Industry Share Compared to Adams and Arapahoe Counties



Study Area Employment Forecast, 2009-2030

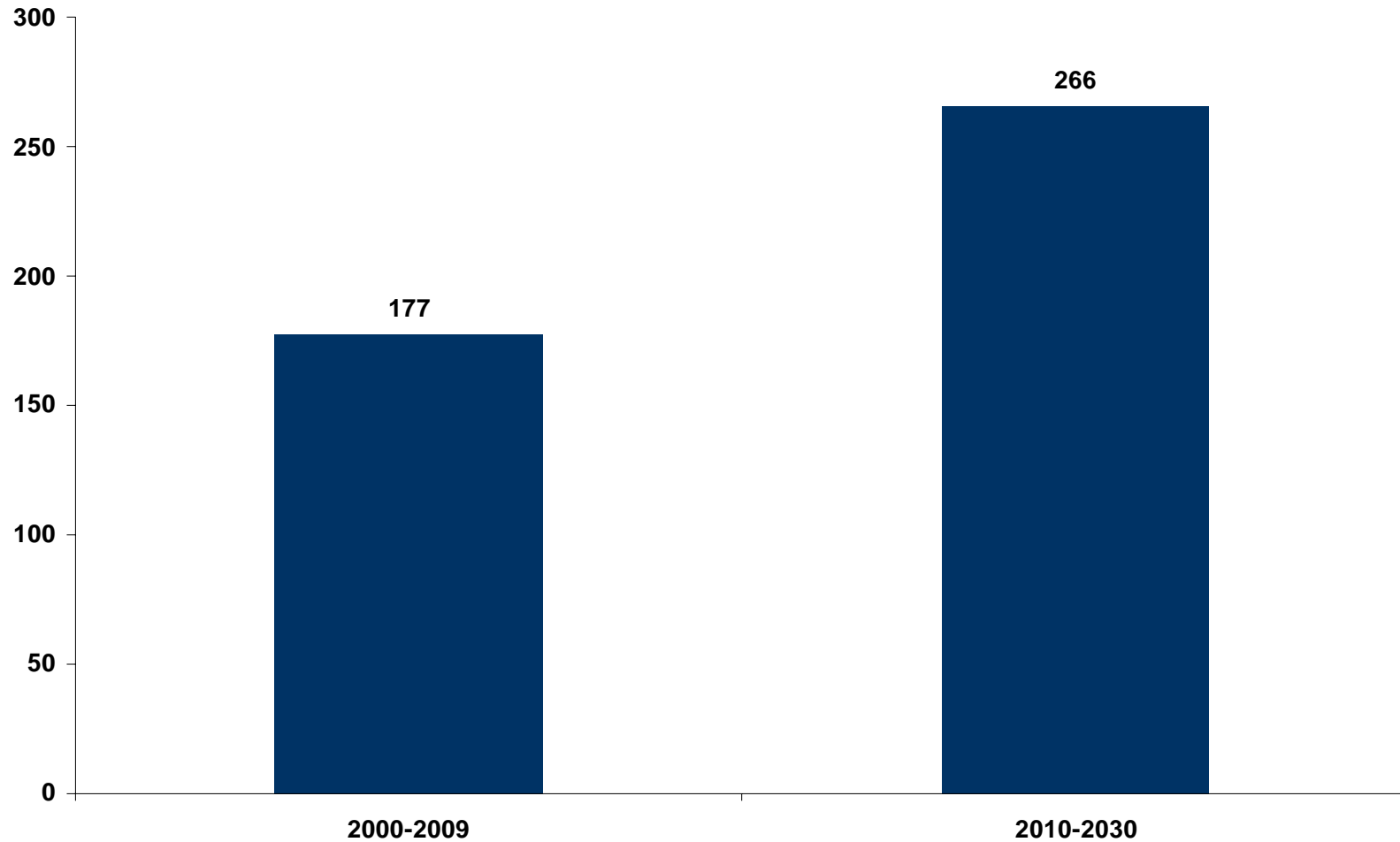
Description	Forecast			Change 2009-2030		
	2009	2020	2030	Total #	Ann. #	Ann. %
Adams County	1,654	3,472	6,681	5,027	239	6.9%
Arapahoe County	<u>1,687</u>	<u>1,889</u>	<u>2,246</u>	<u>559</u>	<u>27</u>	<u>1.4%</u>
Adjusted Employment	3,342	5,361	8,927	5,585	266	4.8%

Source: Claritas, DRCOG, Economic & Planning Systems

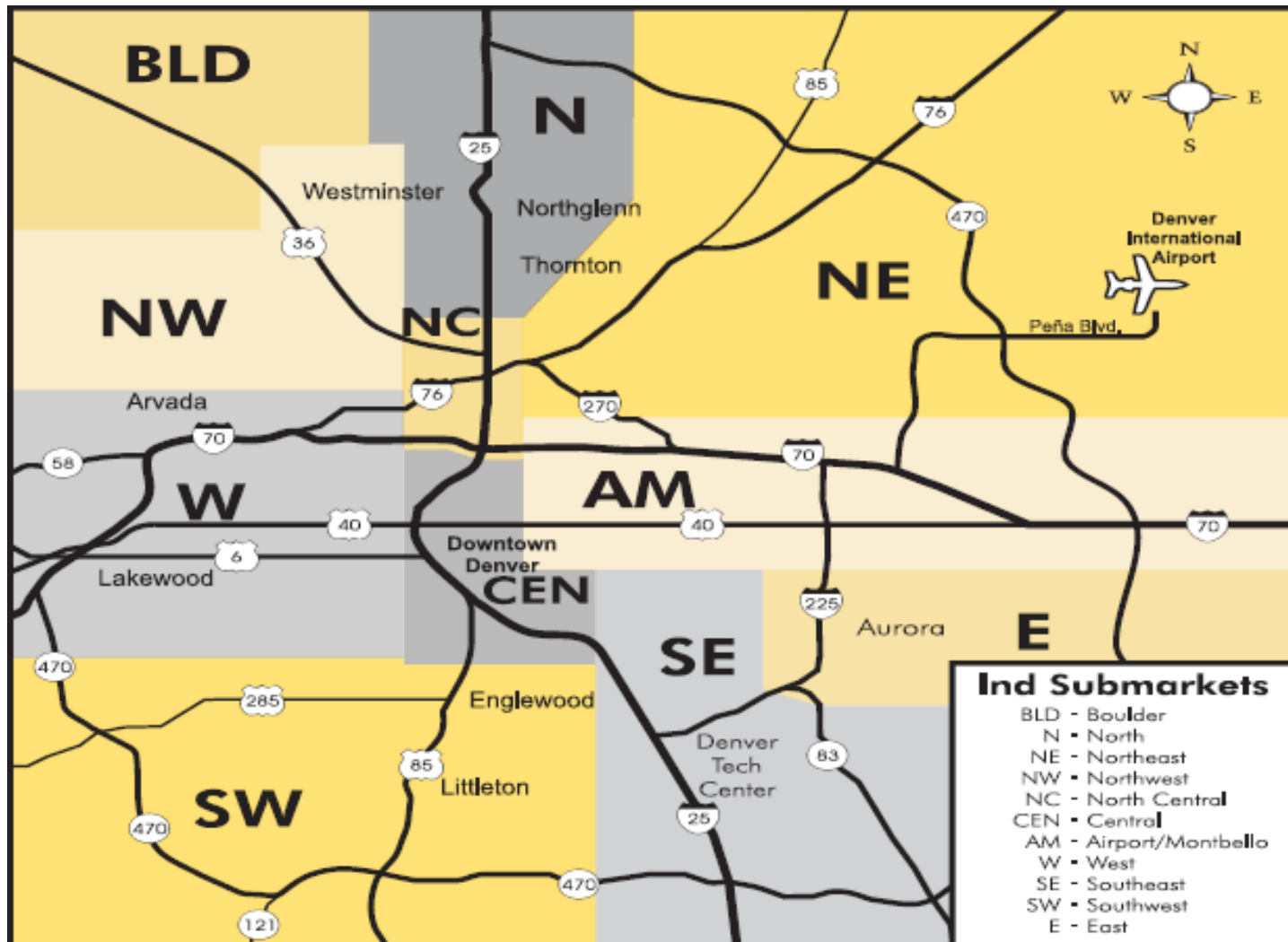
- 2005 DRCOG Forecast used as baseline forecast.
- Adjustments were made to account for actual growth between 2005 and 2010 and factor in the impact of the recession.

Historic Trend vs. Future Projection: Employment

Annual Increase in Employment



Industrial Space Submarkets



Capture of New Industrial Space by Area

Market Area	2009 Total GLA	% of Total	2000-2009 Change	% of Total
Airport/ Montbello	71,173,736	33.1%	9,856,036	87.0%
Boulder	18,461,744	8.6%	477,344	4.2%
Central	29,312,916	13.6%	-3,599,884	-31.8%
East	2,697,598	1.3%	-486,402	-4.3%
North	4,153,965	1.9%	2,008,365	17.7%
North Central	15,018,505	7.0%	1,108,605	9.8%
Northeast	9,968,313	4.6%	132,613	1.2%
Northwest	11,718,085	5.4%	-411,115	-3.6%
Southeast	15,403,182	7.2%	1,033,782	9.1%
Southwest	20,253,721	9.4%	273,221	2.4%
West	16,866,808	7.8%	938,808	8.3%
Metro Total	215,028,573	100.0%	11,331,373	100.0%

Source: Grubb and Ellis

Study Corridor Population and Households, 2000-'09

	2000	2009	Change 2000-2009		
			Total #	Ann. #	Ann. %
Watkins Area					
Population	427	1,018	591	66	10.1%
Households	151	361	210	23	10.2%
Bennett					
Population	2,021	2,405	384	43	2.0%
Households	715	847	132	15	1.9%
Byers Area					
Population	1,233	1,190	-43	-5	-0.4%
Households	436	418	-18	-2	-0.5%
Strasburg Area					
Population	1,402	1,666	264	29	1.9%
Households	503	580	77	9	1.6%
Deer Trail					
Population	598	583	-15	-2	-0.3%
Households	247	241	-6	-1	-0.3%
Remaining (Including Aurora Portions)					
Population	3,565	3,839	274	30	0.8%
Households	1,223	1,312	89	10	0.8%
Study Corridor					
Population	9,246	10,701	1,455	162	1.6%
Households	3,275	3,759	484	54	1.5%

Source: Colo. Depart. of Local Affairs; Claritas; Economic & Planning Systems

Study Corridor Household Forecast, 2010-2030

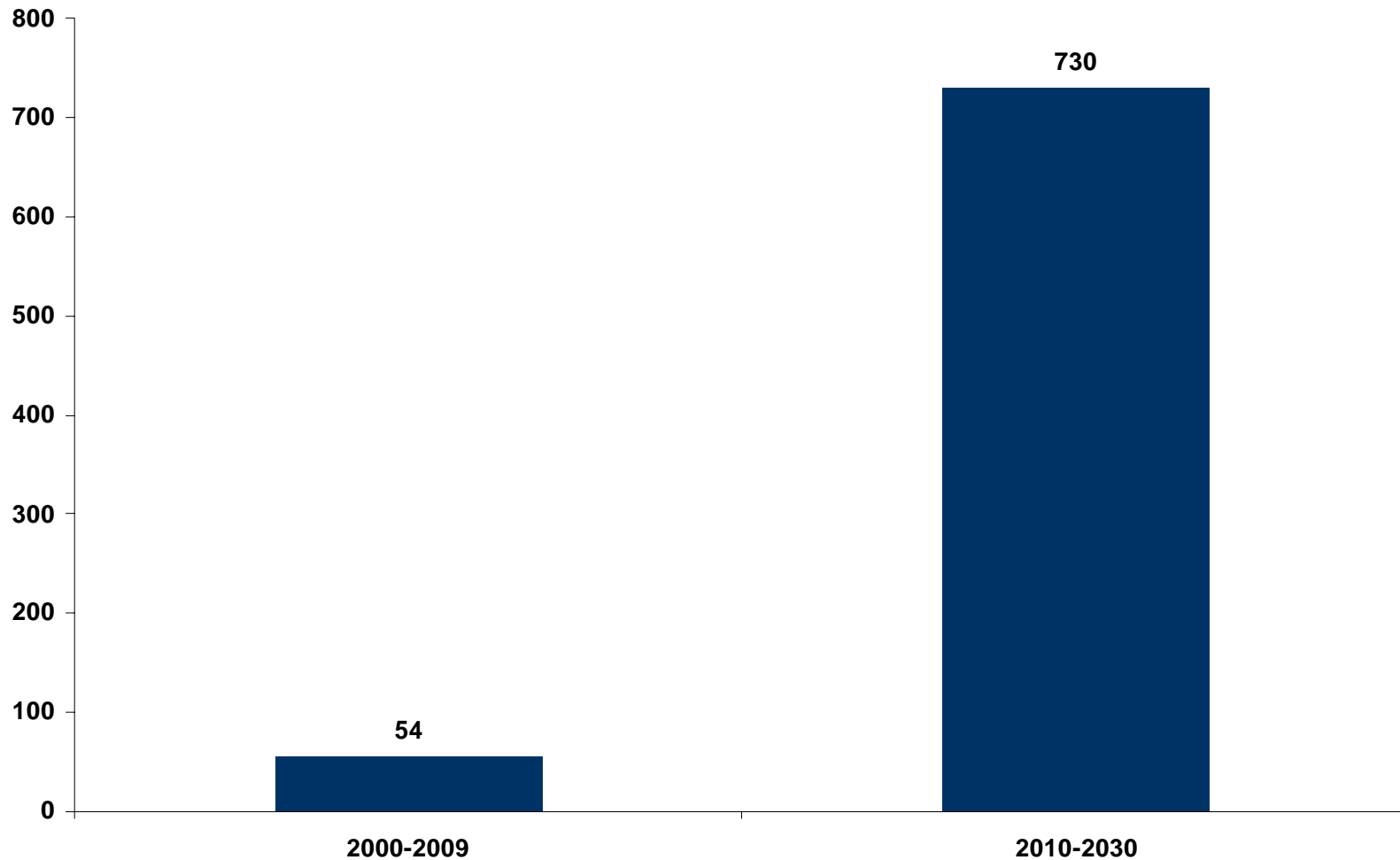
Description	Forecast			Change 2009-2030		
	2009	2020	2030	Total #	Ann. #	Ann. %
Adams County	2,255	3,882	7,456	5,201	248	5.9%
Arapahoe County	<u>1,504</u>	<u>5,146</u>	<u>11,663</u>	<u>10,159</u>	<u>484</u>	<u>10.2%</u>
Adjusted Households	3,759	9,028	19,119	15,360	731	8.1%

Source: Claritas, DRCOG, Economic & Planning Systems

- 5,800 of 15,360 estimated new households are expected outside of Aurora's Planning Area.
- 2005 DRCOG Forecast used as baseline forecast.
- Adjustments were made to account for actual growth between 2005 and 2010 and factor in the impact of the recession.

Historic Trend vs. Future Projection: Households

Annual Increase in Households



Study Corridor Land Demand Analysis

New Jobs/
Households

By Type

Demand for Space

	By Type		Demand for Space		
	Type of Job/HH	%	Type	Sq. Ft. or Units	Acres Of Land
5,600 New Jobs →	Industrial	28%	Industrial	1,170,000	268
	Office	25%	Office	550,000	94
	Public	20%	Retail	1,050,000	174
	Retail	17%			
	Other	10%			
16,000 New Homes →	Rural Household (Greater than 1 acre)	5%	Rural Homes	800	12,500
	Urban Household (Less than 1 acre)	95%	Urban Homes	15,200	7,400

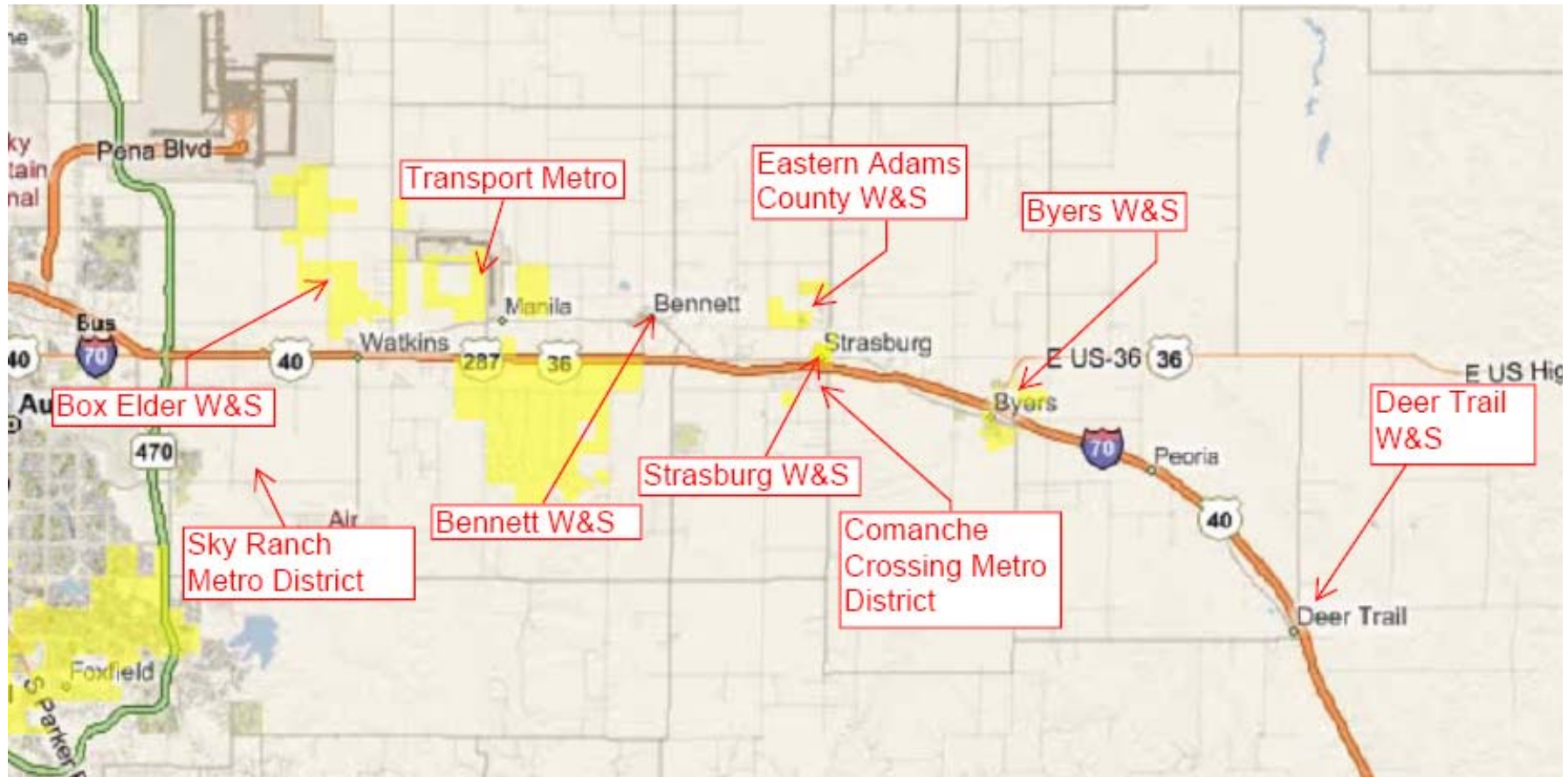
INFRASTRUCTURE CONDITIONS

Infrastructure Conditions

- Reviewed Master Plans and available data for:
 - Power
 - Natural Gas
 - Transportation
 - Water and Wastewater
 - Communications and Broadband



Water and Sanitation Districts



Water Providers Capacity

Water Providers in Study Area (SFE)			
Provider	Current Service	Current Capacity*	Available Growth*
Bennett	900	1,800	900
Strasburg	348	700	352
Byers	428	555	127
Deer Trail	214	392	178
East Adams	352	560	208
Total	2,242	4,007	1,765

* Based on Existing Infrastructure, estimated
 Source: Interviews with Providers - DRAFT



Capacity Analysis

- 1,765 SFEs of additional growth capacity for current providers.
- Projected 5,800 new households in area by 2030 (not including Aurora portions of Corridor).
- Assuming all water is used for only residential use there is current available growth capacity for 30 percent of projected households.
- If 50 percent of demand is allocated to commercial growth then capacity available for residential growth drops to 15 percent of projected households.



Water and Sanitation Providers

- Sufficient infrastructure and water supply to serve existing demands and to accommodate modest growth
- All on Denver Basin Aquifer well water, a finite resource
- Within Lost Creek and Kiowa-Bijou Designated Groundwater Basins
- Alluvial aquifers over-appropriated
- No local perennial surface water supply
- Insufficient capacity to accommodate projected growth for area



Groundwater Issues

- Finite resource
- Decreased well productivity over time
- Increased power costs, more wells over time
- Already 200' drawdown in Watkins/Bennett area
- Estimated 40-85 percent reduction in aquifer production in south metro area by 2050

Source: Division of Water Resources



Colorado Renewable Water Supply – Water Demands (AFY)

State

Today: 1,200,000

2030: 1,800,000

Increase: 600,000

South Platte Demands

Today: 800,000

2030: 1,200,000

Increase: 400,000

* Numbers are acre-feet per year (AFY)
Source: Colorado Water Conservation Board

- 310,000 AFY Identified
- 90,000 AFY Gap



Potential Regional Water Supply Projects

- Northern System
 - East Cherry Creek Valley
- Prairie Waters Project
 - City of Aurora
- Lowry Range
 - Rangeview Metropolitan District - Pure Cycle Corporation
- Others:
 - Regional Watershed Supply Project - Million Resource Conservation Group
 - Pump back alternatives



Transportation

- I-70
 - Sufficient capacity through 2035 east of Watkins
- Adams County
 - Creating a separated grade crossing in Bennett
 - Realigning SH 79 through Bennett
- Arapahoe County
 - Improvements to 6th Avenue
 - Re-alignment of Kiowa-Bennett Road at I-70
 - Widening of Watkins Rd.

Source: Adams County Transportation Plan, 1996
Arapahoe County Transportation Master Plan, In-Progress
DRCOG 2035 Transportation Plan



Dry Utilities – Power and Natural Gas

- Xcel provides service west of Bennett
- Intermountain Rural Electric Association (IREA) provides service east of Bennett
- Recent improvements to power grid in Strasburg and west for planned growth
- Power grid east of Strasburg may not be sufficient for substantial growth
- Xcel provides gas service west of Strasburg
- Colorado Utility Company provides gas service east of Strasburg, as well as multiple smaller providers



Communications

- Cable Broadband
 - Available within Bennett, Strasburg, and Byers.
 - DSL broadband is available west of Strasburg.
 - Only wireless broadband is available east of Strasburg and outside of Byers.
- Telephone Service
 - Four providers in Study Corridor
 - Bijou Telephone Cooperative (Byers and Deer Trail)
 - TDS Telecom (Strasburg)
 - Eastern Slope Rural Telephone (Bennett)
 - Qwest (areas west of Bennett)

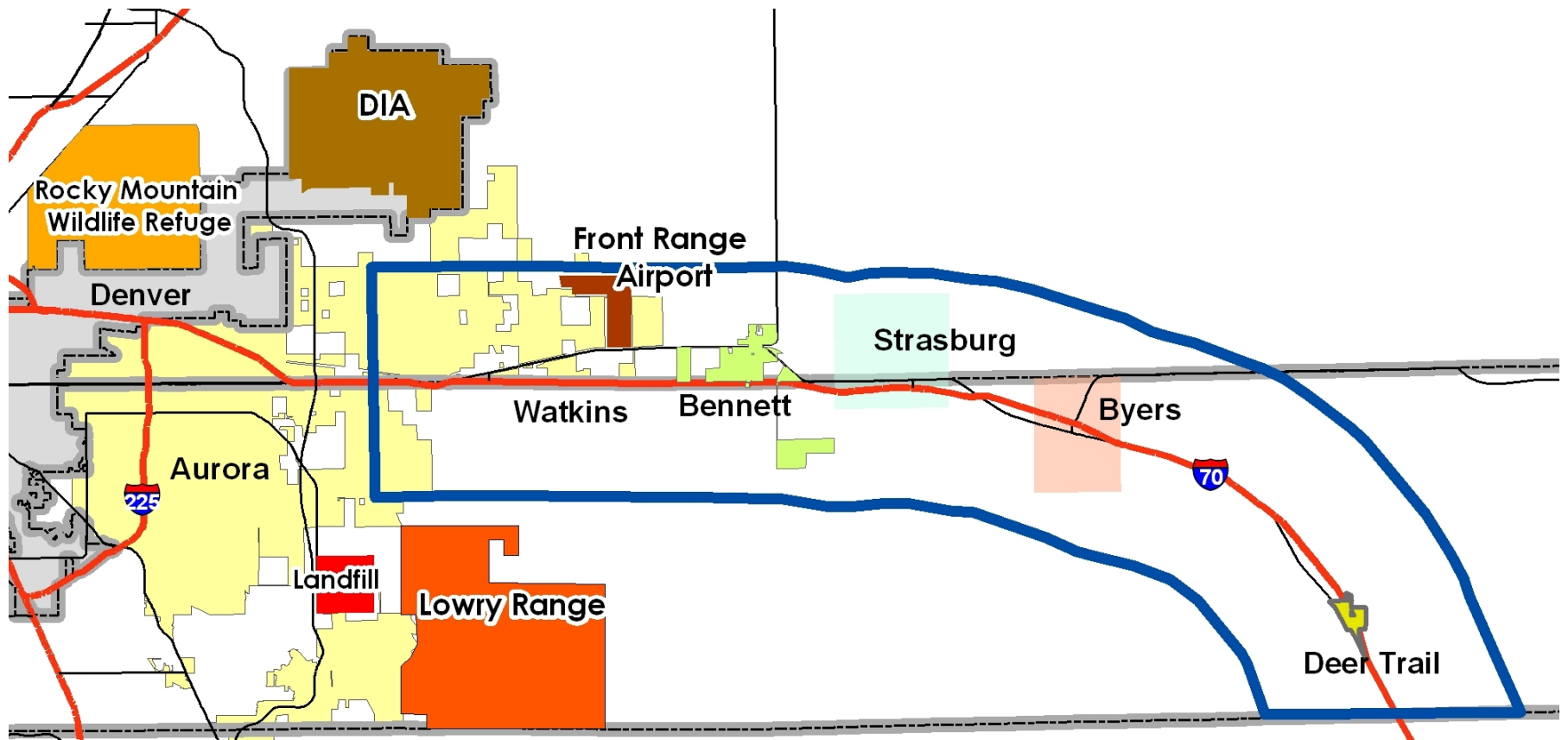
Summary

- Numerous infrastructure planning studies completed that include I-70 corridor
- Reasonable solutions identified to accommodate future growth for most infrastructure systems
- Renewable water supply should be pursued as component of long term planning, addressing competitive nature at a regional level and within the study corridor



CORRIDOR CONDITIONS

Regional Growth Drivers



Large Landholdings

Watkins Area

- Transport – 6,500 acres
- Furniture Row – 5,000 acres
- Property Reserve, Inc. – 4,300 acres
- Sky Ranch – 950 acres

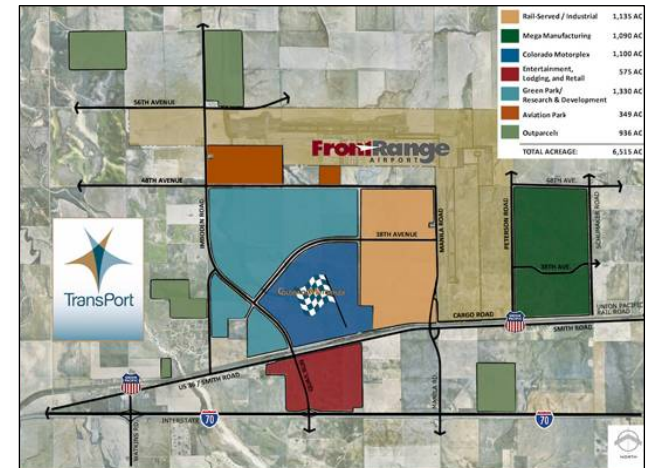
Bennett/Strasburg Area

- Paul's Corporation – 2,950 acres
- Double A Farms – 2,700 acres
- Muegge Farms – 1,200 acres
- Comanche Farms – 1,700 acres
- Burchfield – 1,550 acres
- Converse Family – 950 acres
- Kenneth Newby – 800 acres

- Is an asset and can allow for significant regional improvements to be made if large projects are developed.
- Lack of large landowners can be a barrier to growth.
- Some of these landholders most likely have other significant pieces of land in other areas or under different names.

Major Development Projects

- Transport
 - 5,000-acre planned multi-model transportation hub
- Comanche Crossing Business Park
 - Planned 54-acre business park
 - Future phases possible
- Sky Ranch
 - Planned 950-acre residential development
 - Recently purchased by Pure Cycle



Land Use Plans

- Adams County- Comprehensive Plan adopted 2004
- Arapahoe County - Comprehensive Plan adopted 2001
- Bennett – Significant updates being made to land use plans to plan for growth
- Byers – Subarea plan created in 2003
- Strasburg – Subarea plan created in 2002
- Deer Trail – Has comprehensive plan
- Watkins Area – No formal plan. Briefly incorporated in recent past.
- Joint planning efforts have occurred for areas such as Strasburg.
- Aurora is generally focused on areas already annexed.

Economic Development Efforts

- Adams County Economic Development
 - Administers Enterprise Zone Program (areas in Strasburg and Bennett)
 - Development Ready Site database
- I-70 Chamber and REAP
 - Goal to attract employment to Study Corridor
 - Development and business community voice
- Front Range Airport
 - Major economic driver for Study Corridor
 - Potential to be even bigger driver of employment
 - Recently completed Airport Development Strategy– identifies several action items related to opportunities at the airport.

ADVANTAGES AND DISADVANTAGES

Advantages

- Market Drivers:
 - Air transportation: DIA and Front Range Airport
 - I-70 and related transportation routes
 - Rail transportation
 - Potential for Trans-Loading link
- Established growth patterns to the west
- Close proximity to largest concentration of industrial uses in metro area
- Metro area constraints elsewhere
- Existing land aggregations
- Strong land use plans
- Recreation and entertainment facilities (growing area asset)
- Active communities in Corridor
- Corridor leadership

Disadvantages

- Lack of adequate water resources to support projected growth
 - Renewable water source is needed
 - Several, fragmented water providers
 - No regional infrastructure
- Potential for fragmented development
- Competing visions for the corridor.
- Lack of development ready sites to attract businesses.
- Still removed from areas of major growth, need to be proactive to be competitive.

RECOMMENDATIONS

Moving Forward

- Land Use
 - Consider IGA for region
 - Recognize targets for area
 - Job Growth
 - Household Growth
 - Take ownership of the identified gaps
 - Once 30% of projected water demand can be accommodated
 - Synthesize development requirements
 - Build on current plans adopted by communities and address the areas between communities
 - Accommodate but reduce the occurrence of fragmented development patterns

Moving Forward (Cont'd)

- Economic Development
 - Supplement and expand current economic development efforts
 - Increase the communication between the Counties, REAP, and the Adams County EDC
 - Focus on Corridor's Unique Economic Assets
 - Build on the findings from the Front Range Airport's recent study that will facilitate expansion of economic activity.
 - Recognize the economic potential related to a Trans-Load facility and identify ways to move that project forward.
 - Consider a visioning/branding strategy for the corridor that increase its profile in the region
 - Expand the data base related to development-ready sites
 - Identify the extent of anticipated growth that can be accommodated
 - Identify the impediments to be addressed to increase land supply to meet projected demand

Moving Forward (Cont'd)

- Infrastructure
 - Form Joint Task Force
 - Formalize leadership by Adams and Arapahoe Counties
 - Future Water Provision
 - Build on findings from this study
 - Summarize options
 - Recognize challenges and scale associated with future solutions
 - Define criteria that reflect local priorities
 - For each option, summarize process, players, costs and role for counties
 - Work with existing water and sanitation districts
 - Facilitate a collaborative dialogue
 - Determine roles moving forward