

CARSON CITY

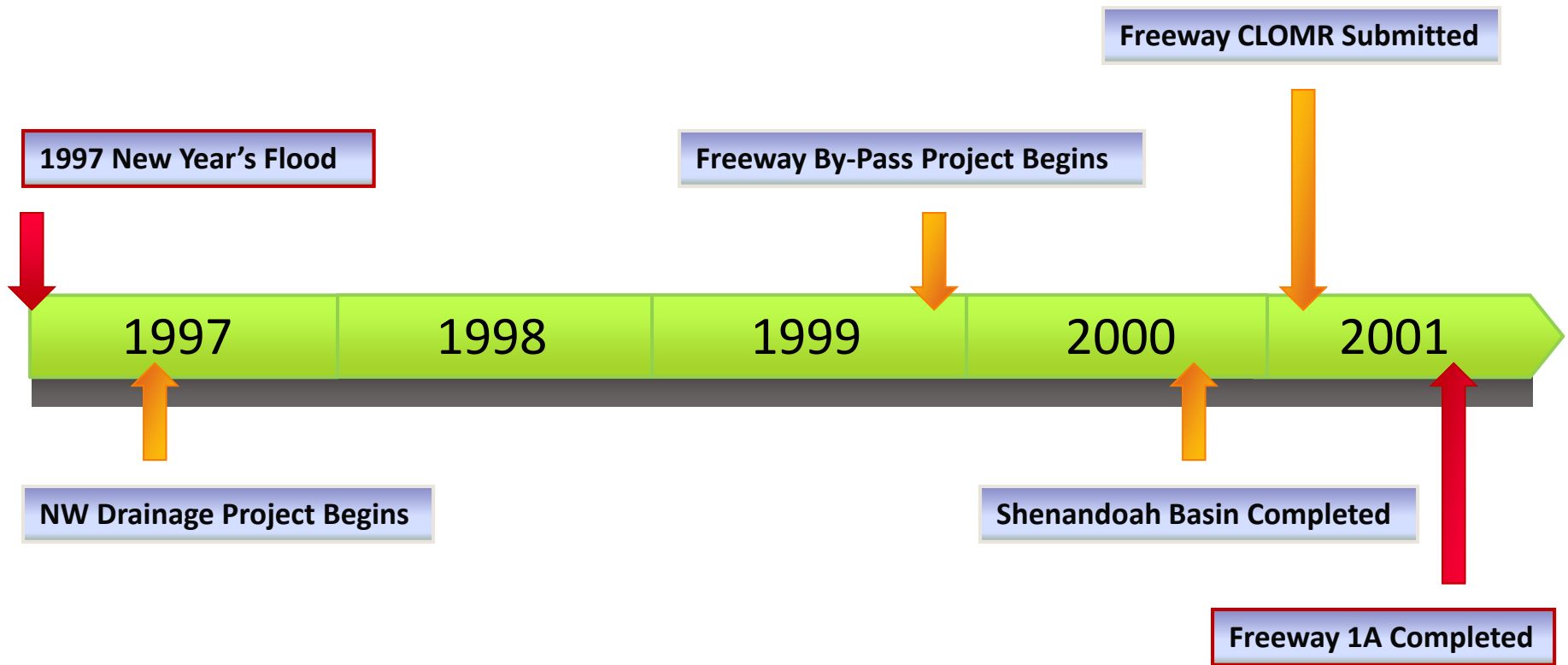


STORM WATER MANAGEMENT PROGRAM & CIP

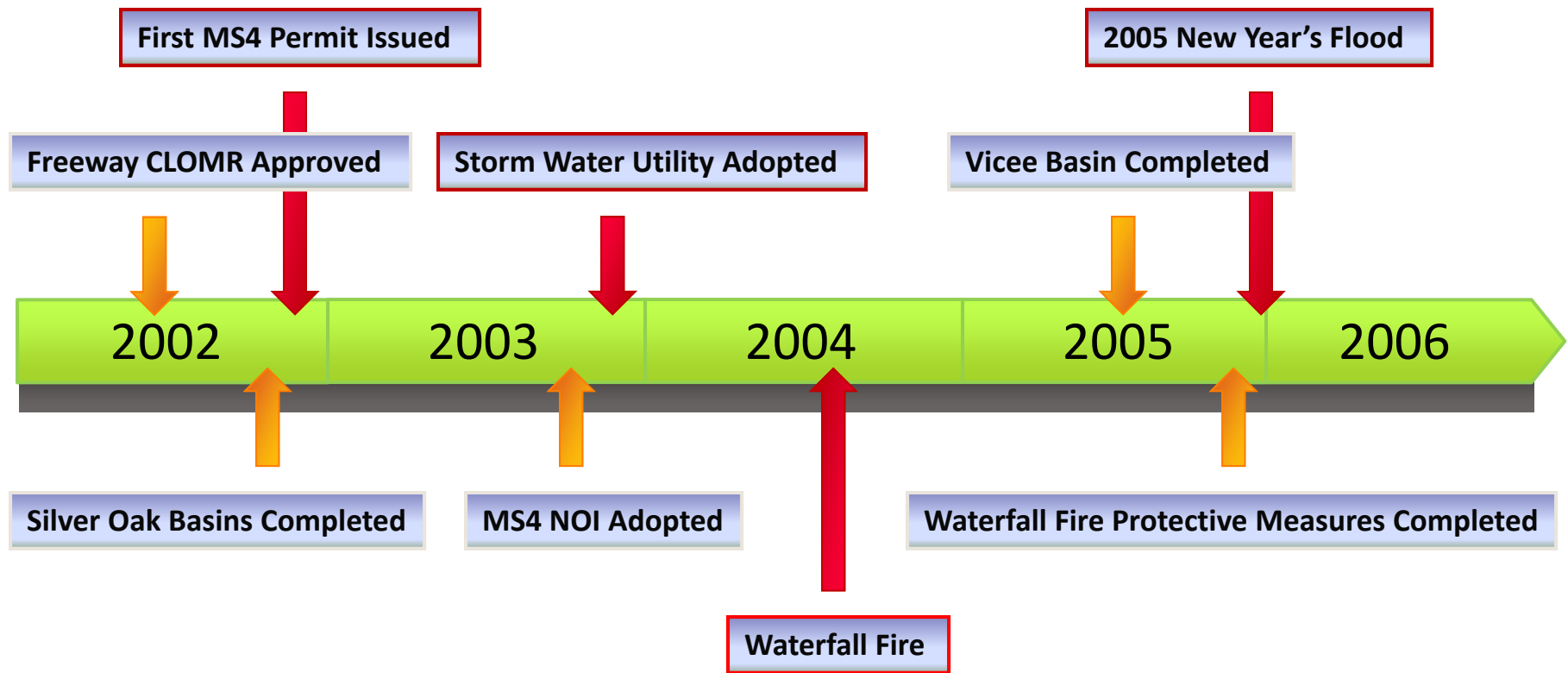
Public Works Department

March 14, 2013

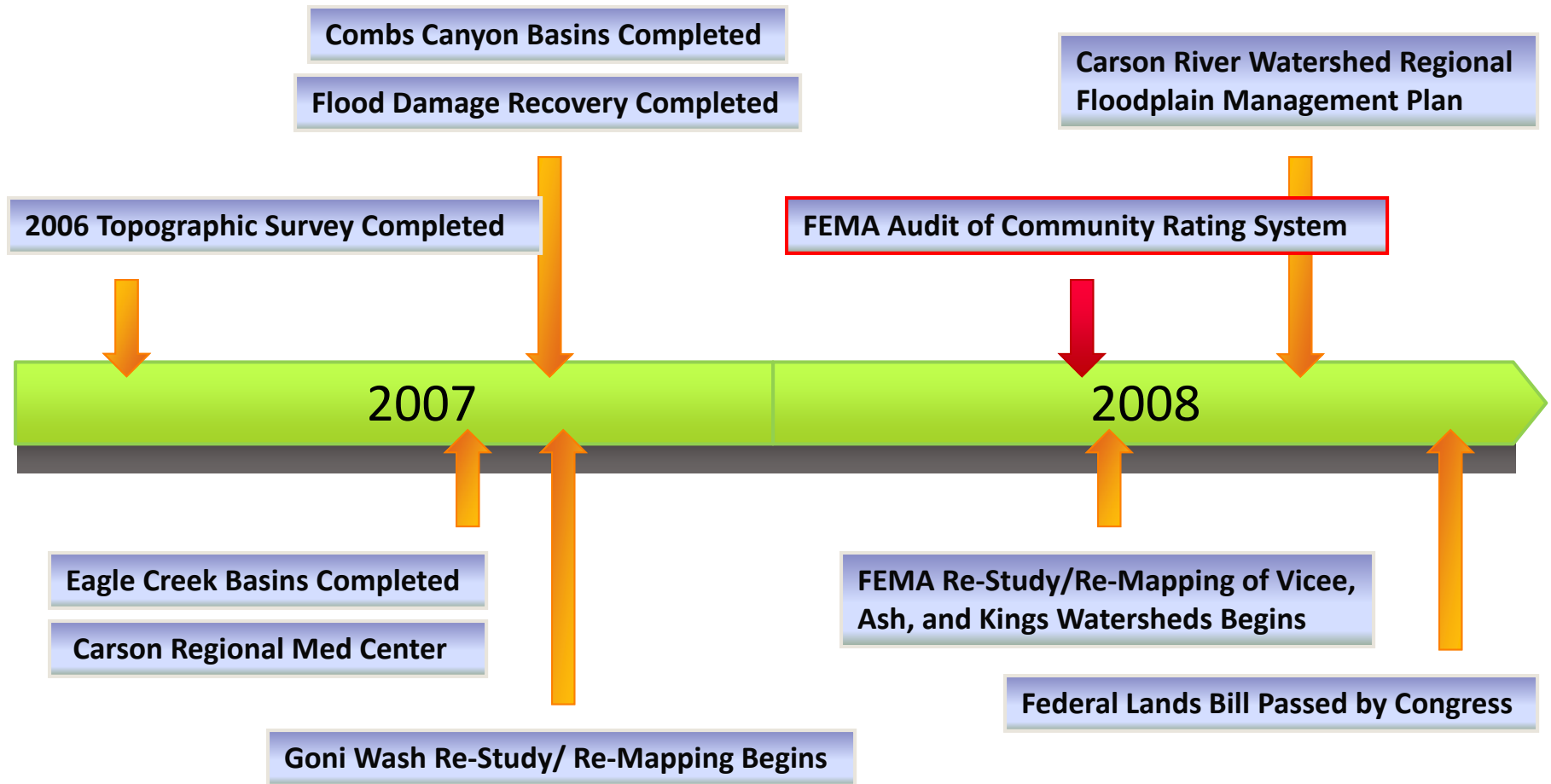
Activity and Event Timeline



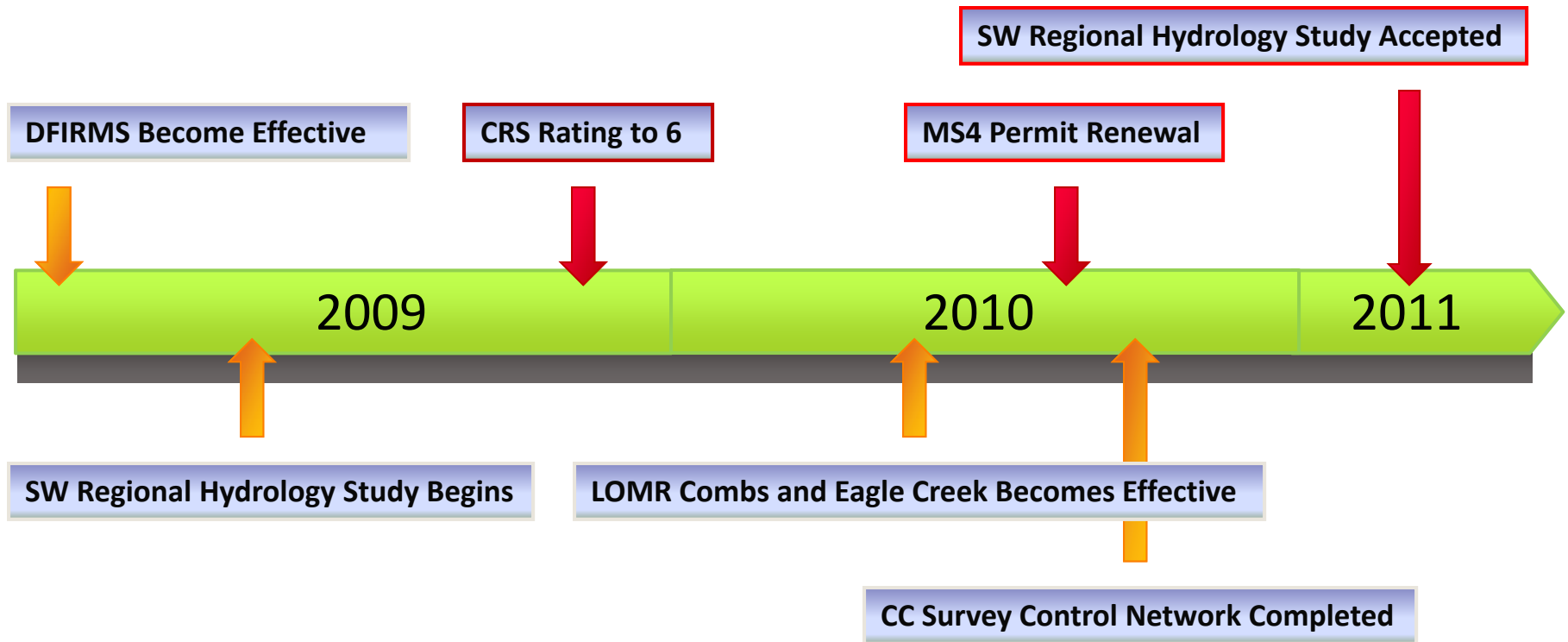
Activity and Event Timeline



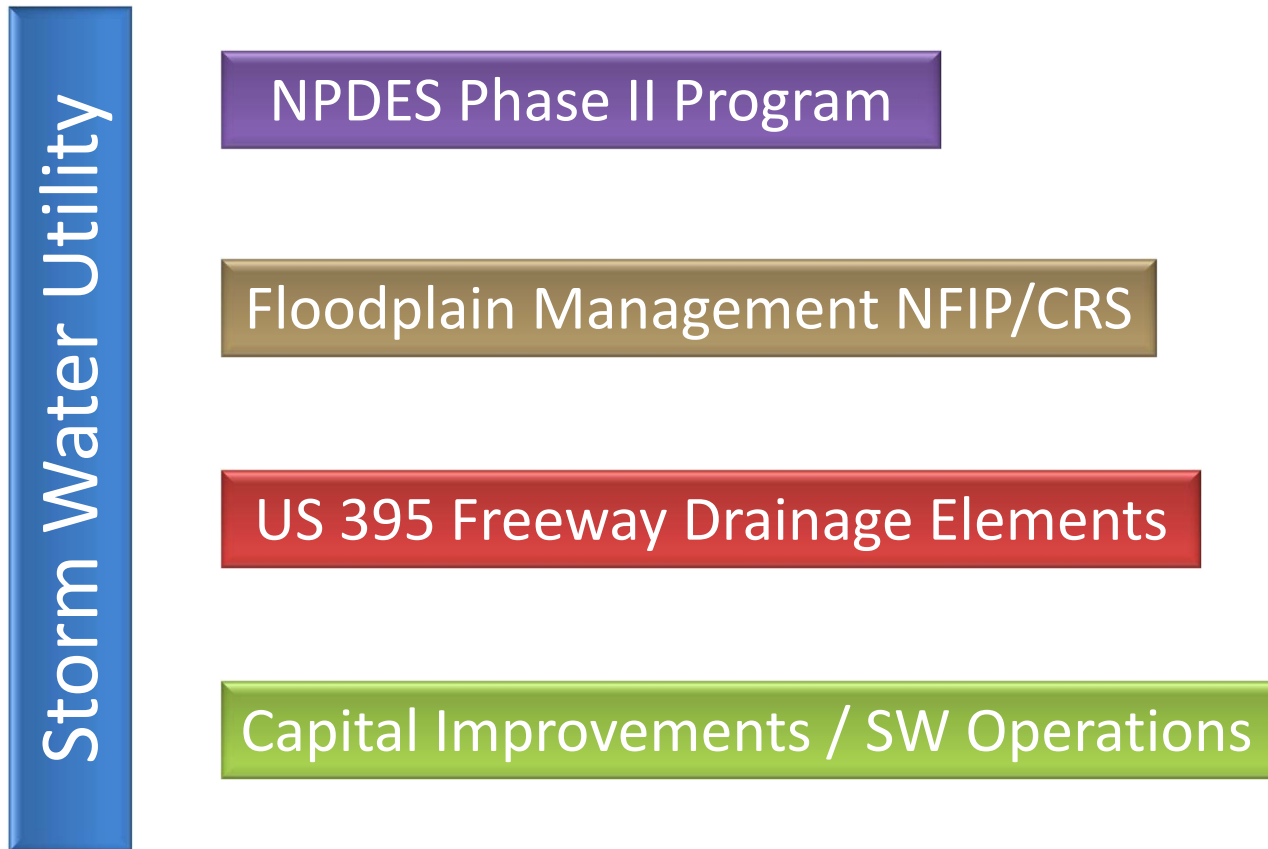
Activity and Event Timeline



Activity and Event Timeline



Storm Water Management Program



National Pollution Discharge Elimination System (NPDES)

1987 Amendments to the 1972 U.S. Clean Water Act

USEPA's Regulation of Storm Water Runoff in Two Phases

Unfunded Federal Mandate on State and Local Governments

Enforced by Nevada Division of Environmental Protection (NDEP)

NPDES Phase I 1990

Medium to Large Municipalities and Large Construction Sites (≥ 5 ac.)

NPDES Phase II 2003

Small Municipalities and Small Construction Sites (≥ 1 ac.)

Carson City Initial NPDES Permit Requirements (2002)

1. Public Education and Outreach

2. Public Participation and Involvement

3. Illicit Discharge Detection and Elimination

4. Construction Site Runoff Control

5. Post-construction Runoff Control

6. Pollution Prevention / Good Housekeeping

PLUS: Carson City Urbanized Discharge to Clear Creek

Carson City NPDES Permit Renewal Requirements (2010)

SAME Requirements from Initial Permit, PLUS:

1. Low Impact Development (LID)

2. Redevelopment

3. Increased Public Outreach

4. Increased Program Documentation

5. Additional SW System Maintenance

6. City SW Ordinance Changes

National Flood Insurance Program (NFIP)

1968: National Flood Insurance Act

1973: Flood Disaster Protection Act

1994 & 2004: National Flood Insurance Reform Acts

Provides federally backed flood insurance to property owners in NFIP participating communities.

Encourages communities to enact, update, and enforce floodplain management ordinances and regulations.

Provides Flood Insurance Studies (FISs)

Provides Flood Insurance Rate Maps (FIRMs)

Reviews and processes Letter of Map Change (LOMC) applications.

Administers and Regulates the Community Rating System (CRS).

NFIP Community Rating System (CRS)

Voluntary for Communities

Incentives for Communities

Full Compliance with NFIP

Must Exceed Minimum Requirements

Credit Points and Classifications

Recognizes Community Activities

FEMA Recognized CRS Activities

Public Information

- Advise local populace of flood hazards, insurance, and protective measures.

Mapping and Regulation

- Enact and enforce regulations that exceed the NFIP minimum standards.

Flood Damage Reduction

- Acquire, relocate, or retrofit existing structures and maintain drainageways and retention basins.

Flood Preparedness

- Flood Warning, Emergency Response, Evacuation Plans, and Maintenance.

Credit Points, Classes, and Premium Reductions

CREDIT POINTS	CLASS	PREMIUM REDUCTION SFHA*	PREMIUM REDUCTION NON-SFHA**
4,500+	1	45%	10%
4,000 – 4,499	2	40%	10%
3,500 – 3,999	3	35%	10%
3,000 – 3,499	4	30%	10%
2,500 – 2,999	5	25%	10%
2,000 – 2,499	6	20%	10%
1,500 – 1,999	7	15%	5%
1,000 – 1,499	8	10%	5%
500 – 999	9	5%	5%
0 – 499	10	0	0

Credit Points, Classes, and Premium Reductions

CREDIT POINTS	CLASS	PREMIUM REDUCTION SFHA*	PREMIUM REDUCTION NON-SFHA**
4,500+	1		10%
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3,000 – 3,499	4	30%	10%
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1,500 – 1,999	7	15%	5%
1,000 – 1,499	8	10%	5%
500 – 999	9	5%	5%
0 – 499	10	0	0

Carson City currently has 2,040 credit points and a Class 6 CRS Rating

Current CRS Classes

Nevada Communities

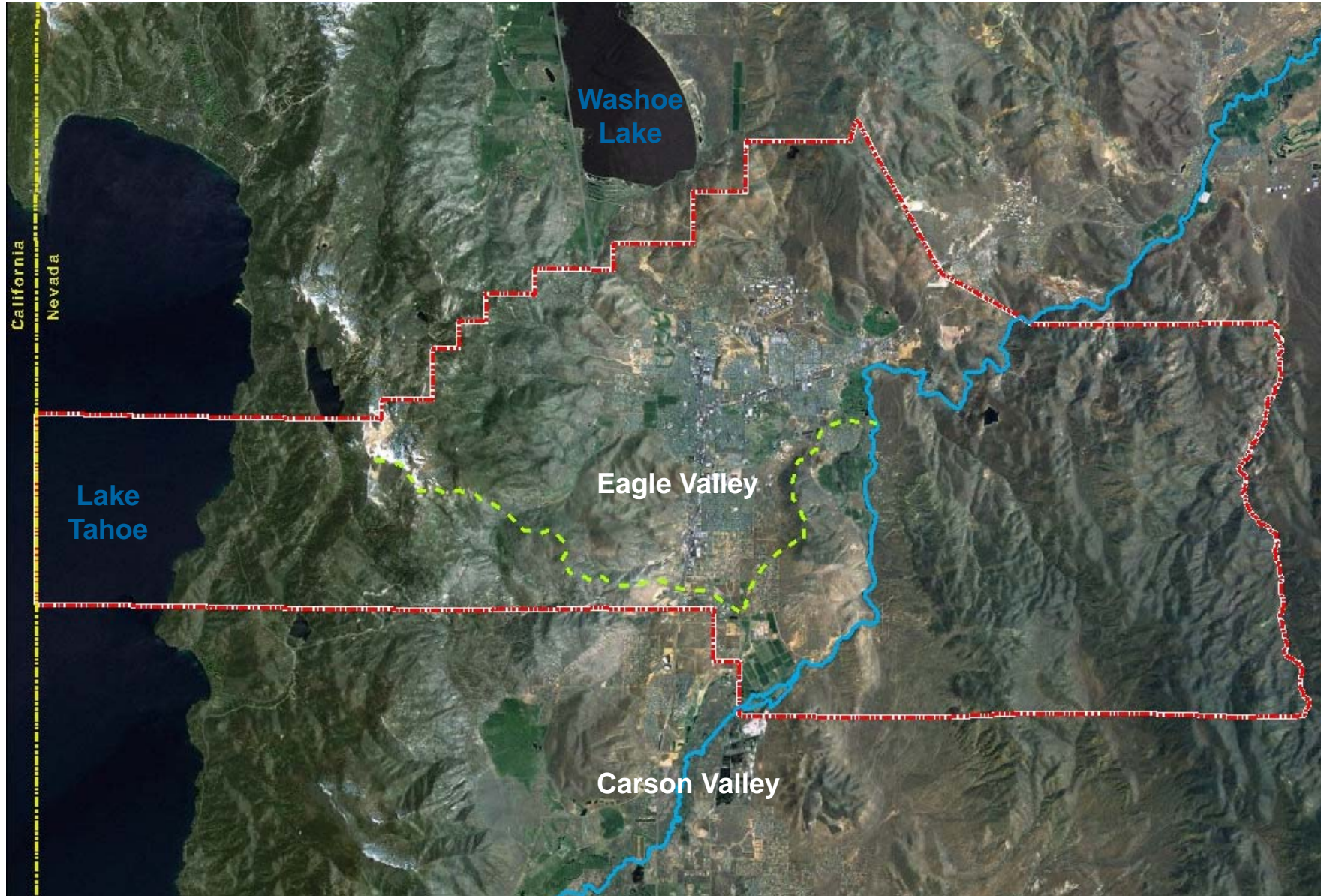
Community	Class
Carson City	6
Clark County	6
Douglas County	6
City of Henderson	6
City of Las Vegas	6
City of Mesquite	7
City of North Las Vegas	6
Storey County	8
Washoe County	7

National Statistics

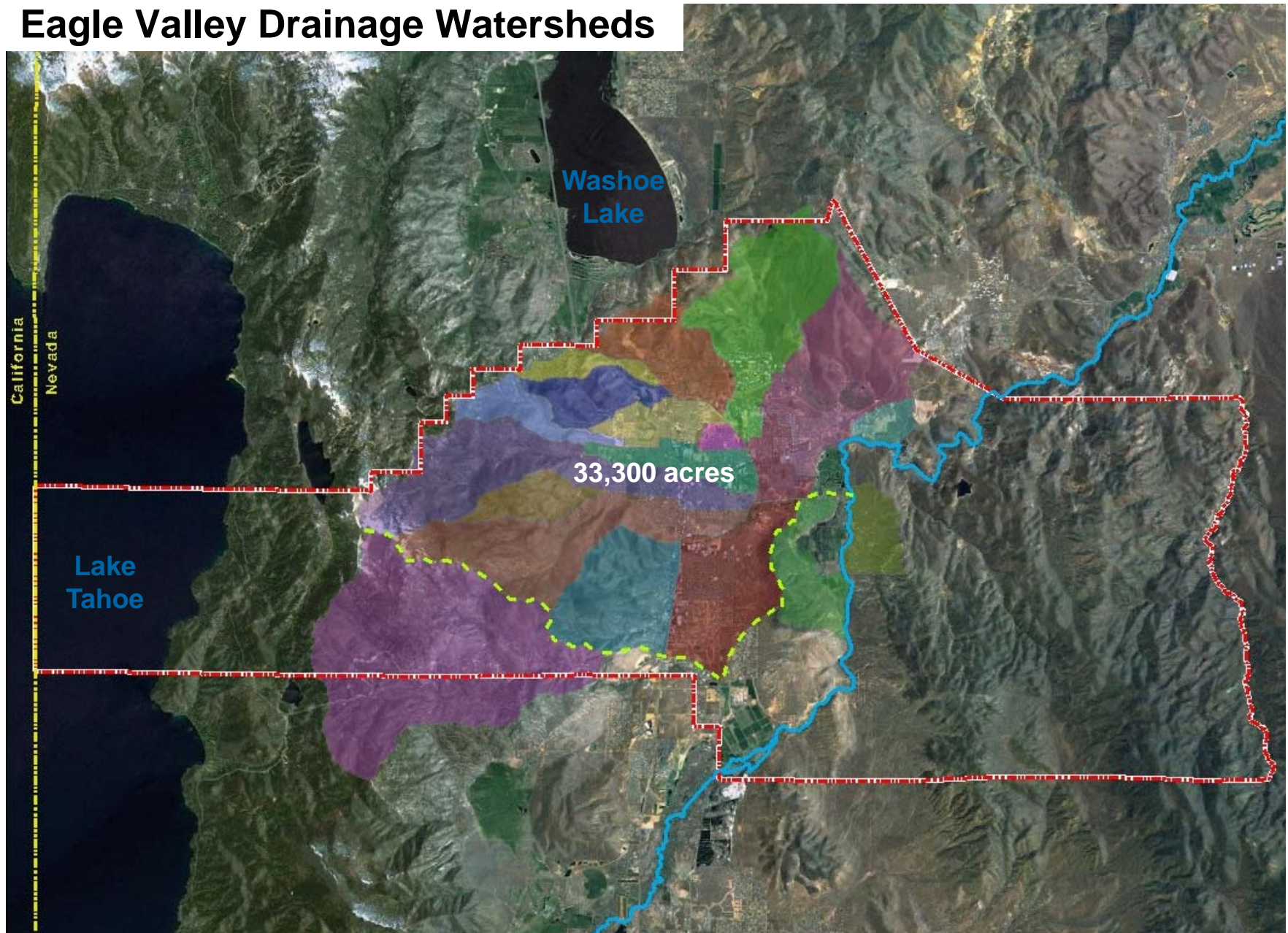
Communities	Class
1	1
2	2
1	3
5	4
50	5
112	6

Roseville, CA only Class 1

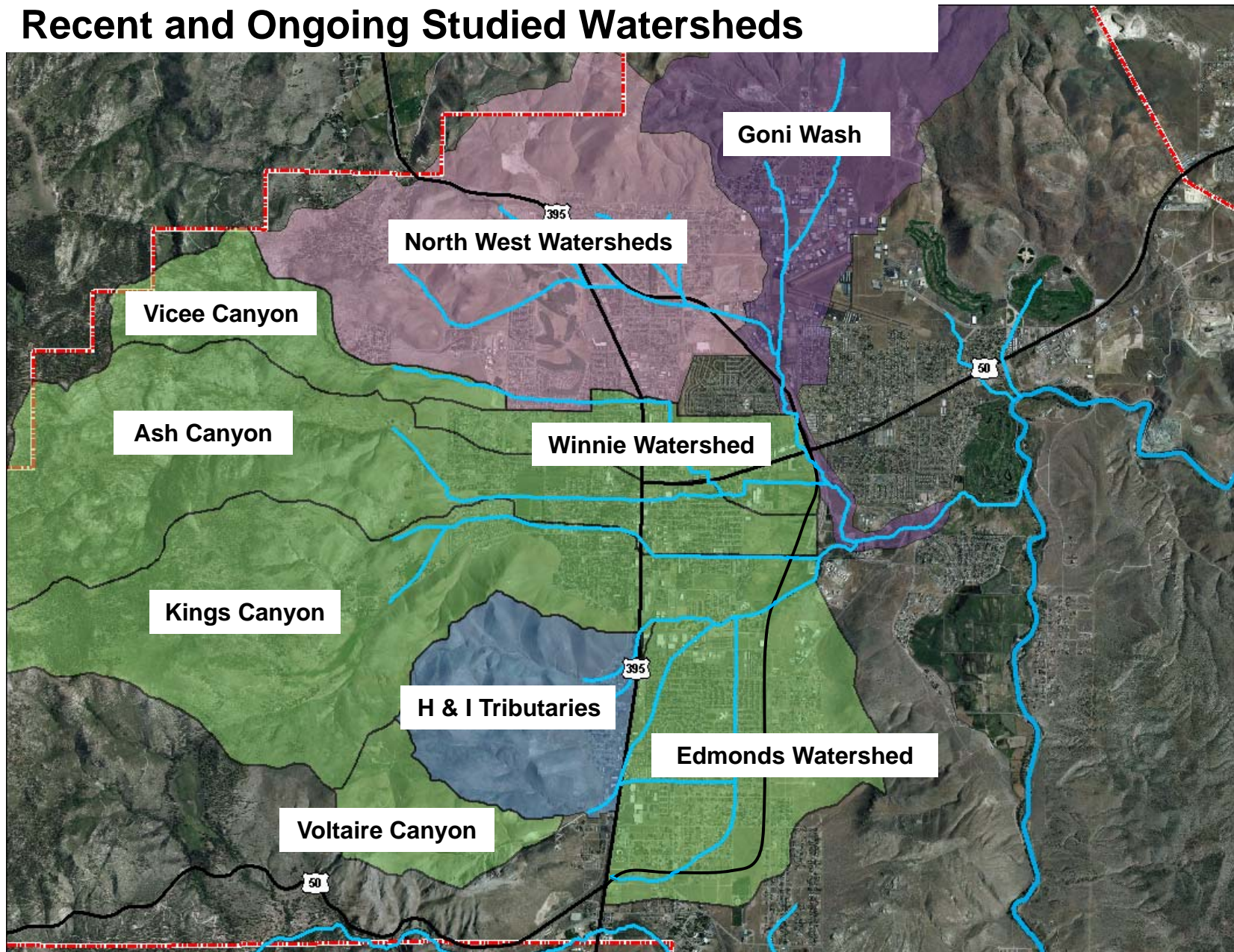
Floodplain Studies and Mapping Efforts



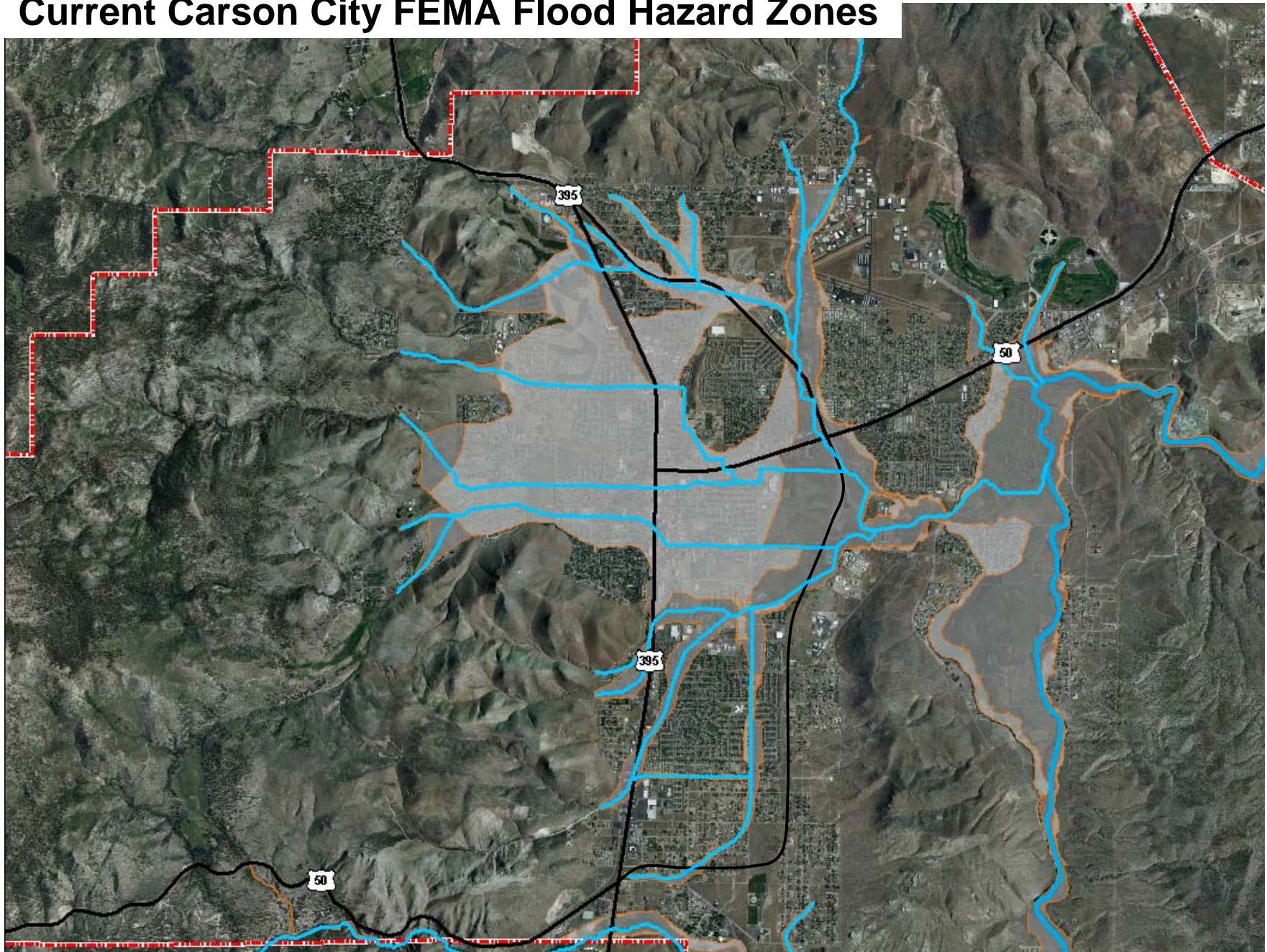
Eagle Valley Drainage Watersheds



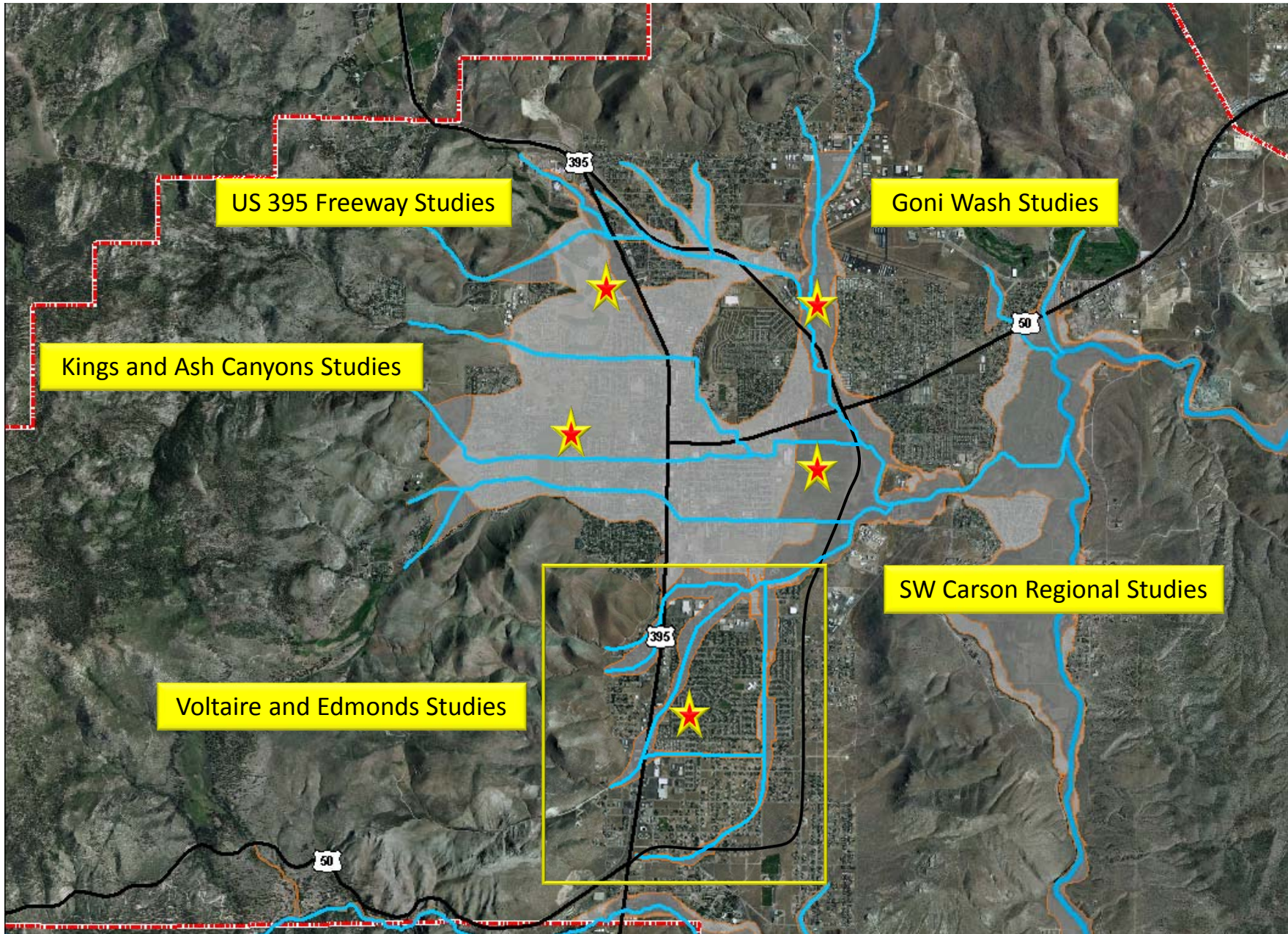
Recent and Ongoing Studied Watersheds



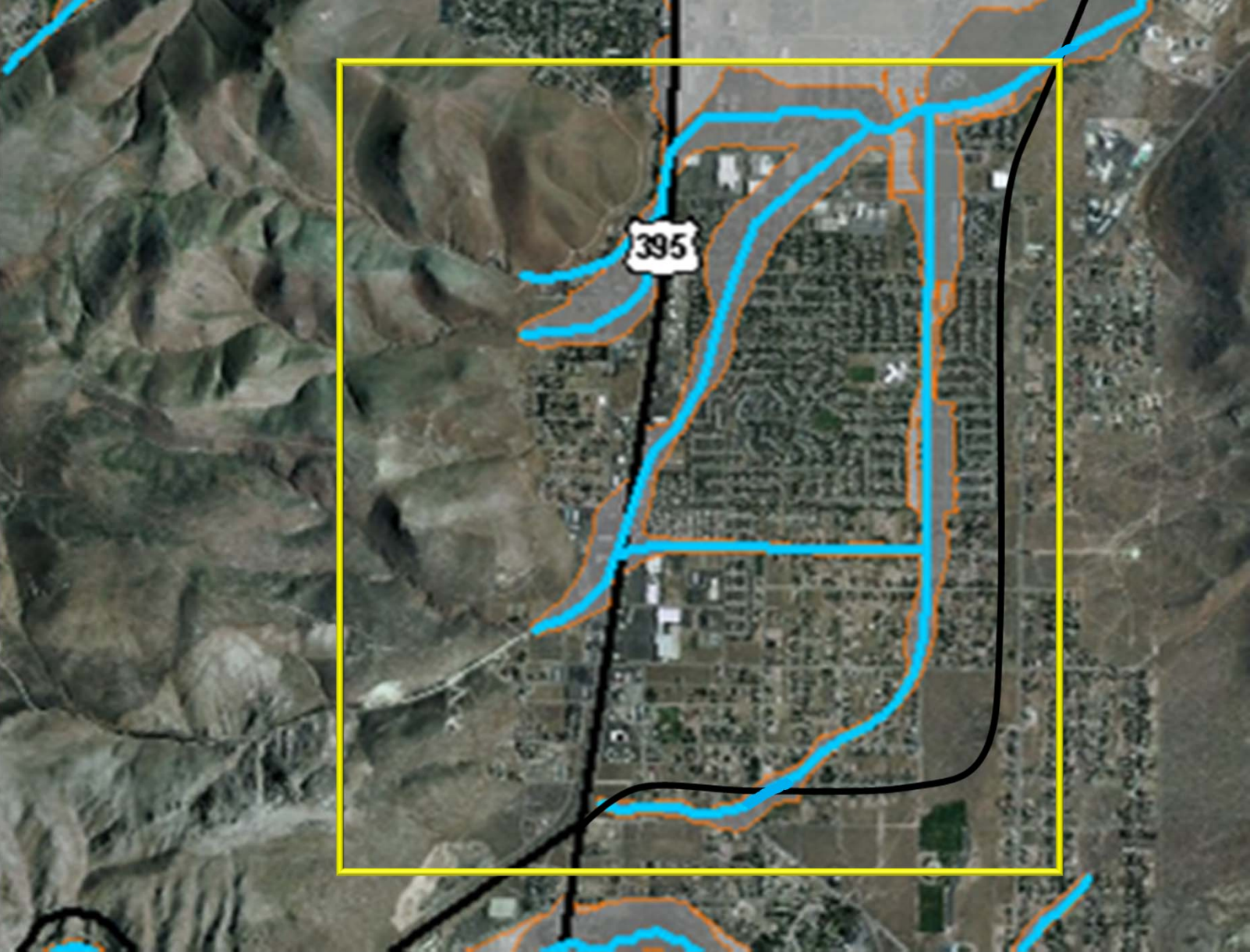
Current Carson City FEMA Flood Hazard Zones



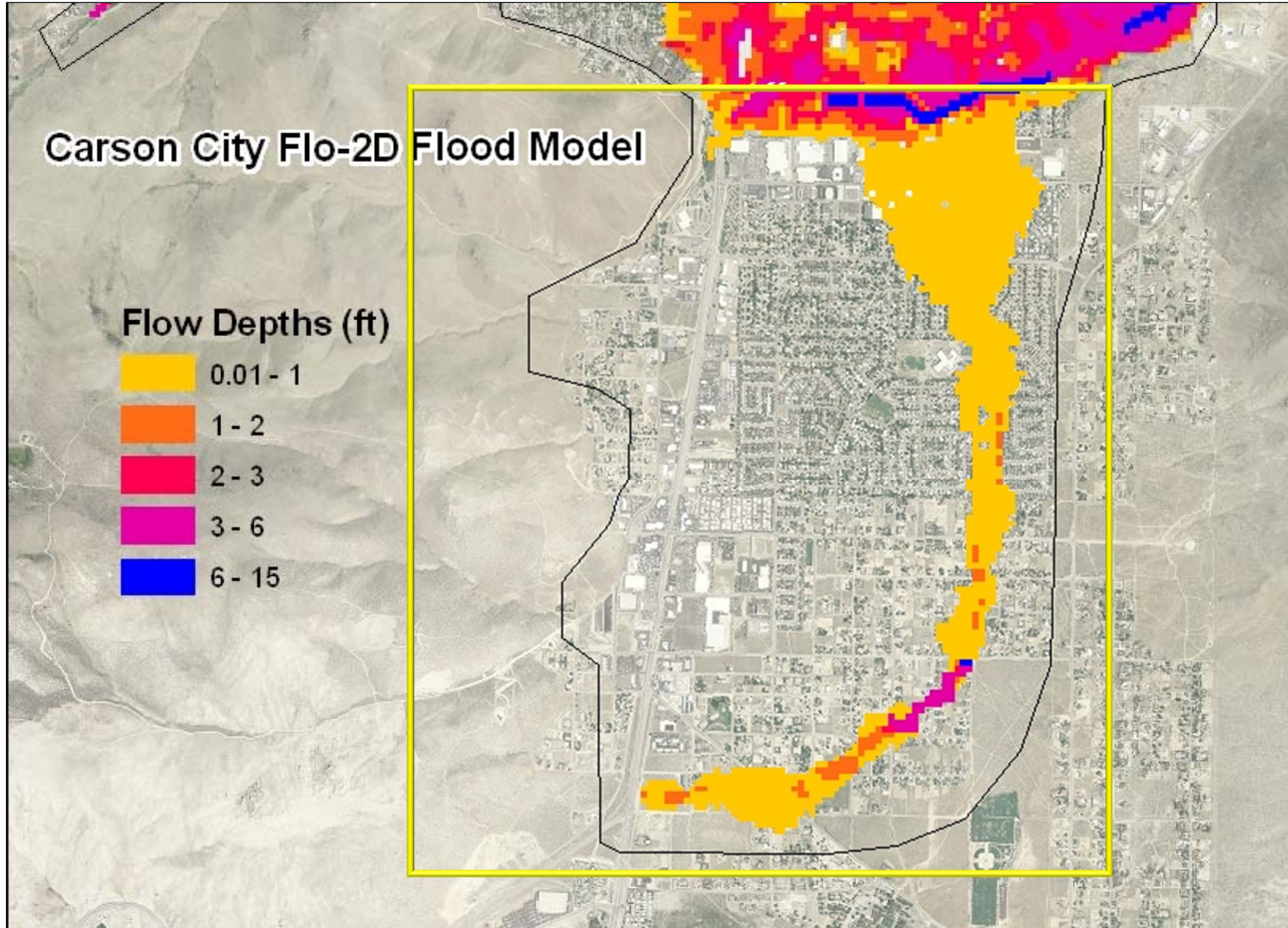
Recent/Ongoing Flood Hazard Zone Studies/Change Applications



EXAMPLE: Voltaire & Edmonds Current Flood Zones



EXAMPLE: Voltaire & Edmonds Flood Zone Remapping



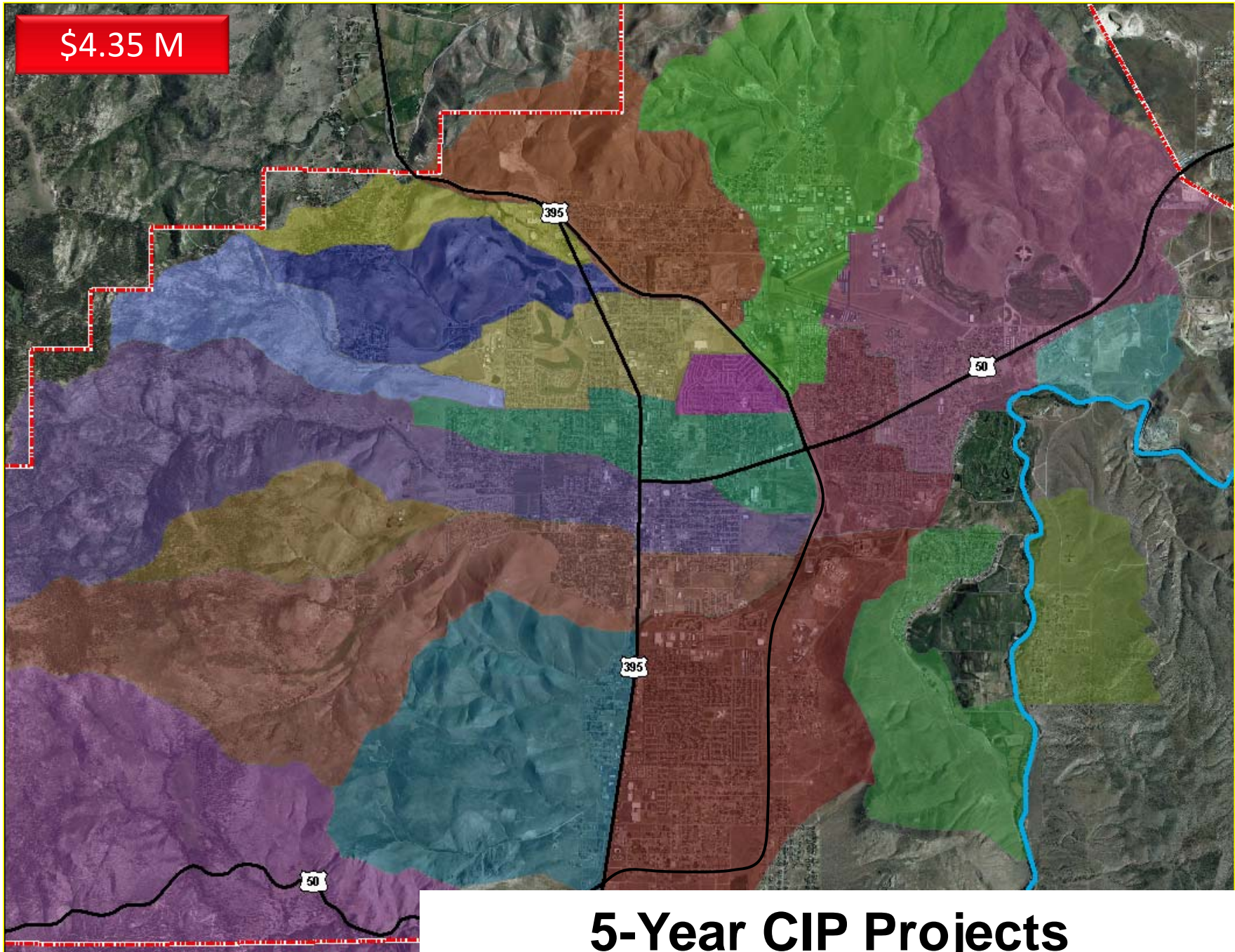
5-Year CIP Projects

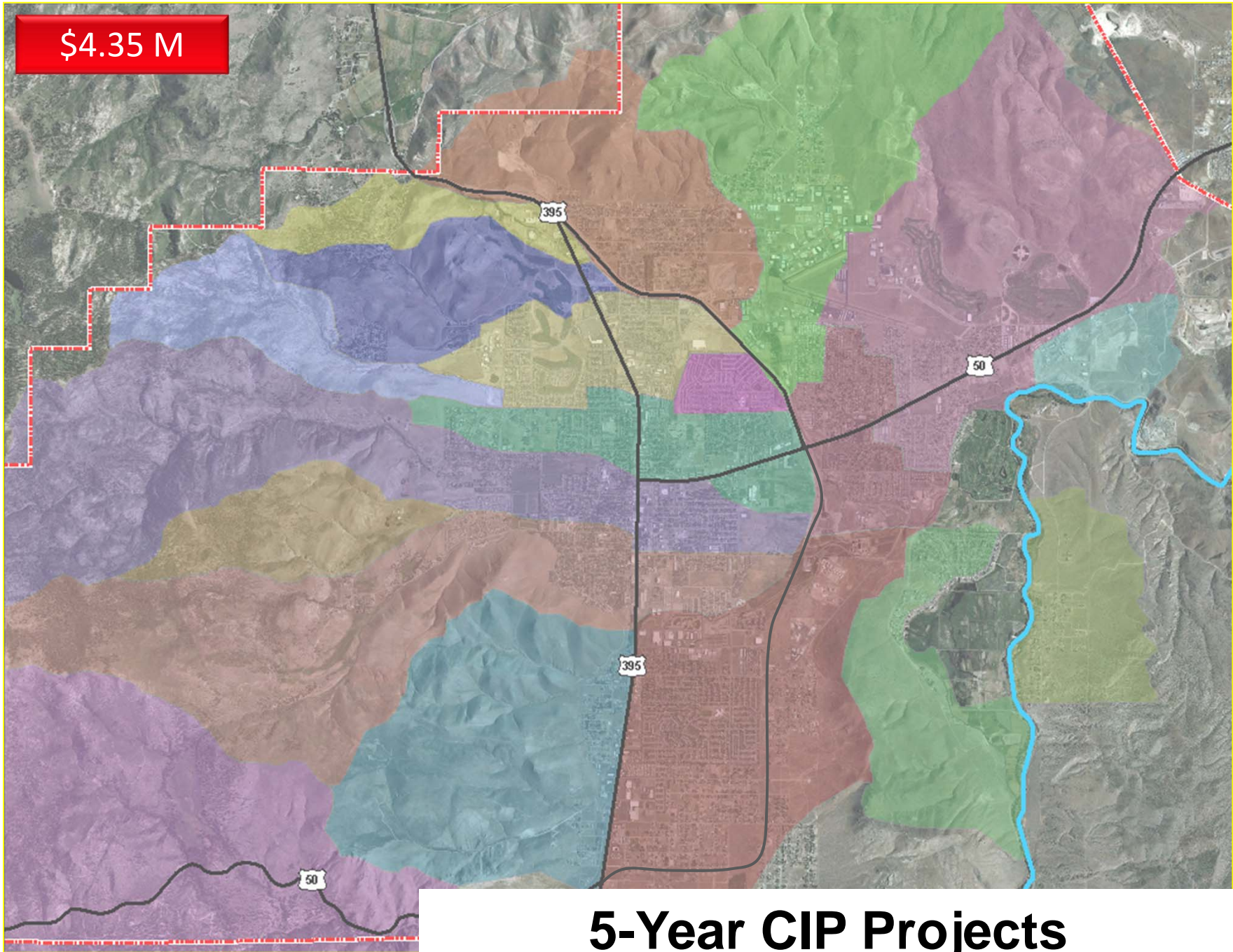
Program Summary

Fiscal Years	13/14 – 17/18
# of Projects	11
Estimates Costs	\$4.35 M
Affected Watersheds	8

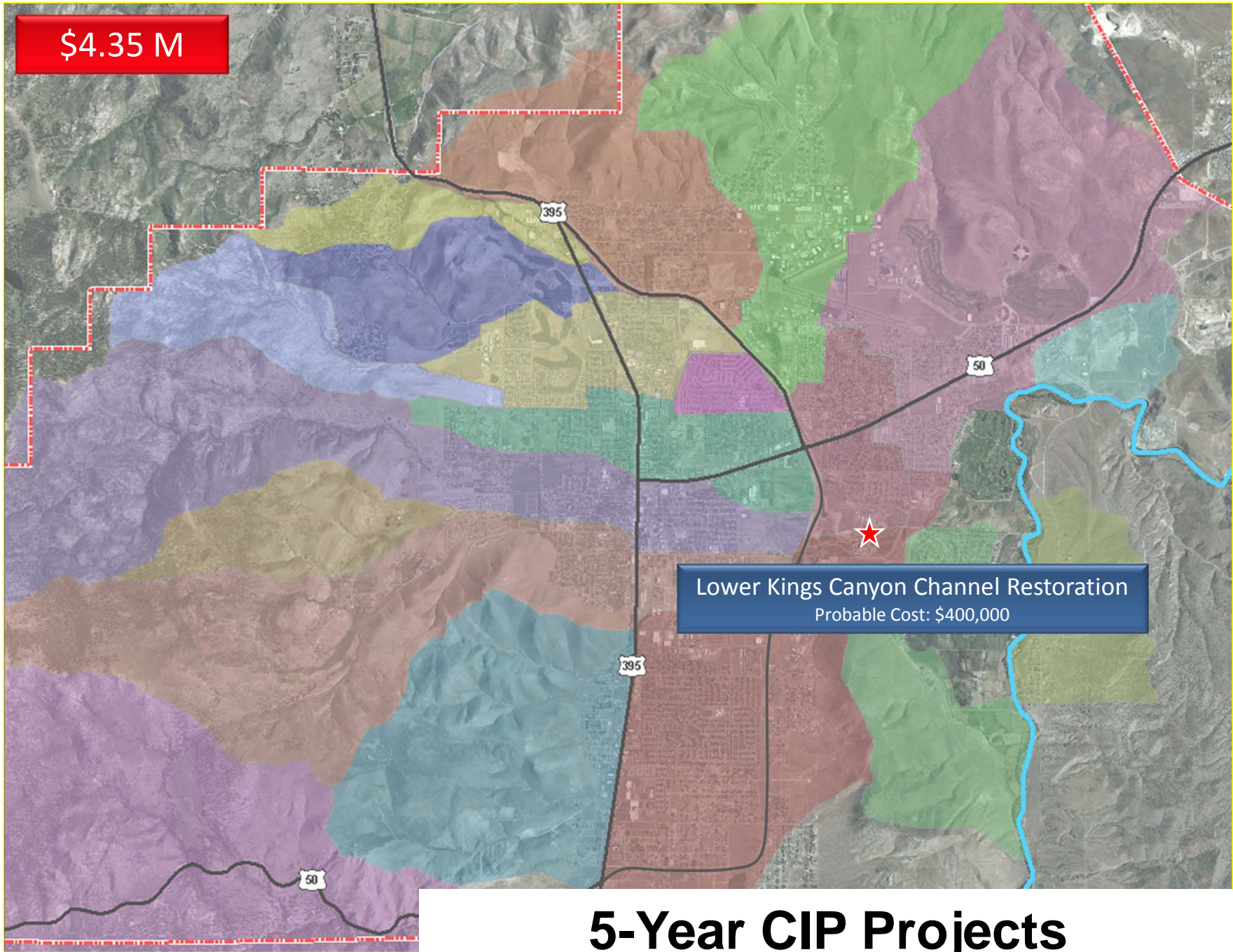
Project Types /

Upgrades of Existing SW System	8
Water Quality Improvements	1
Combination of Project Types	2
SW Required Land Purchases	0

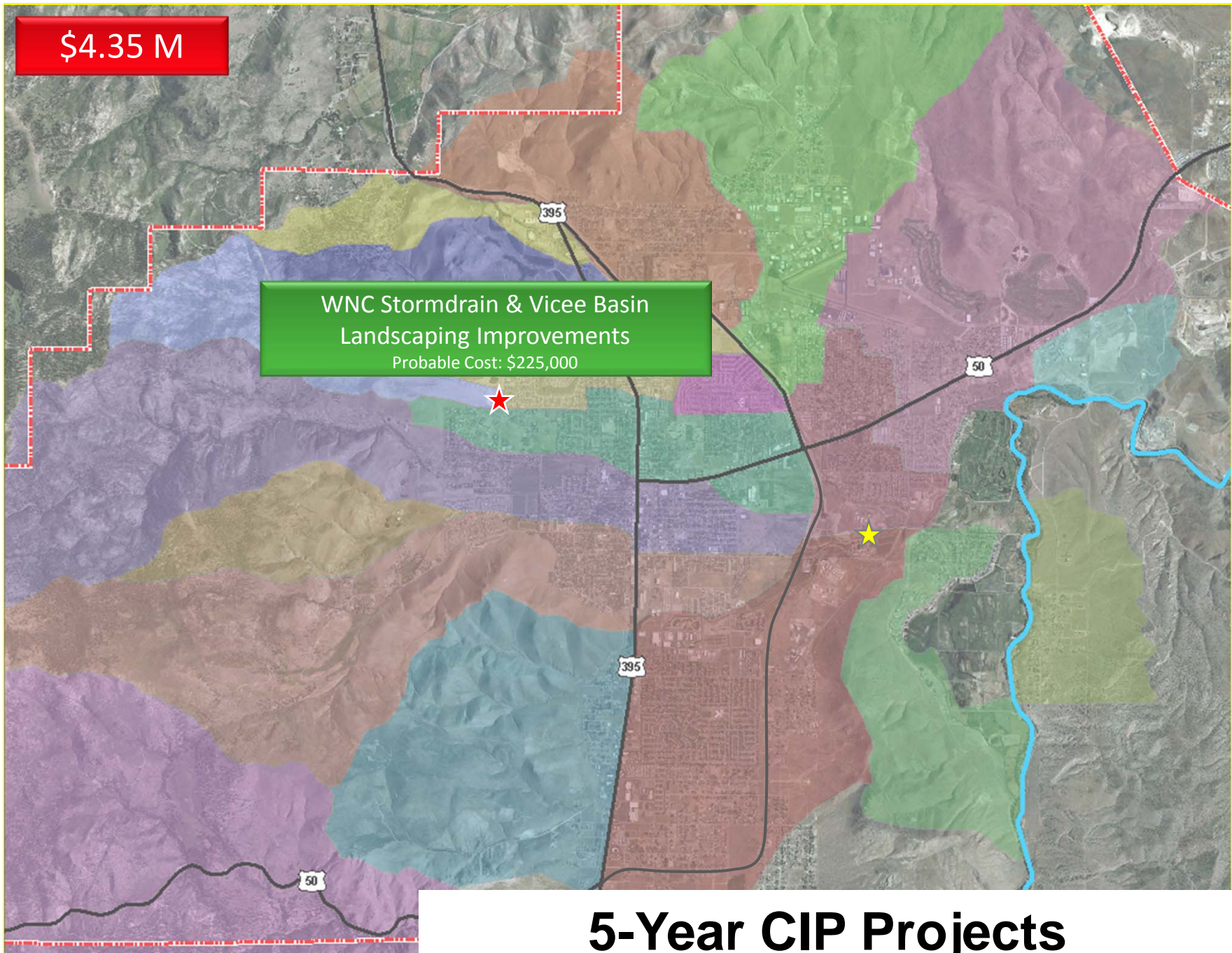




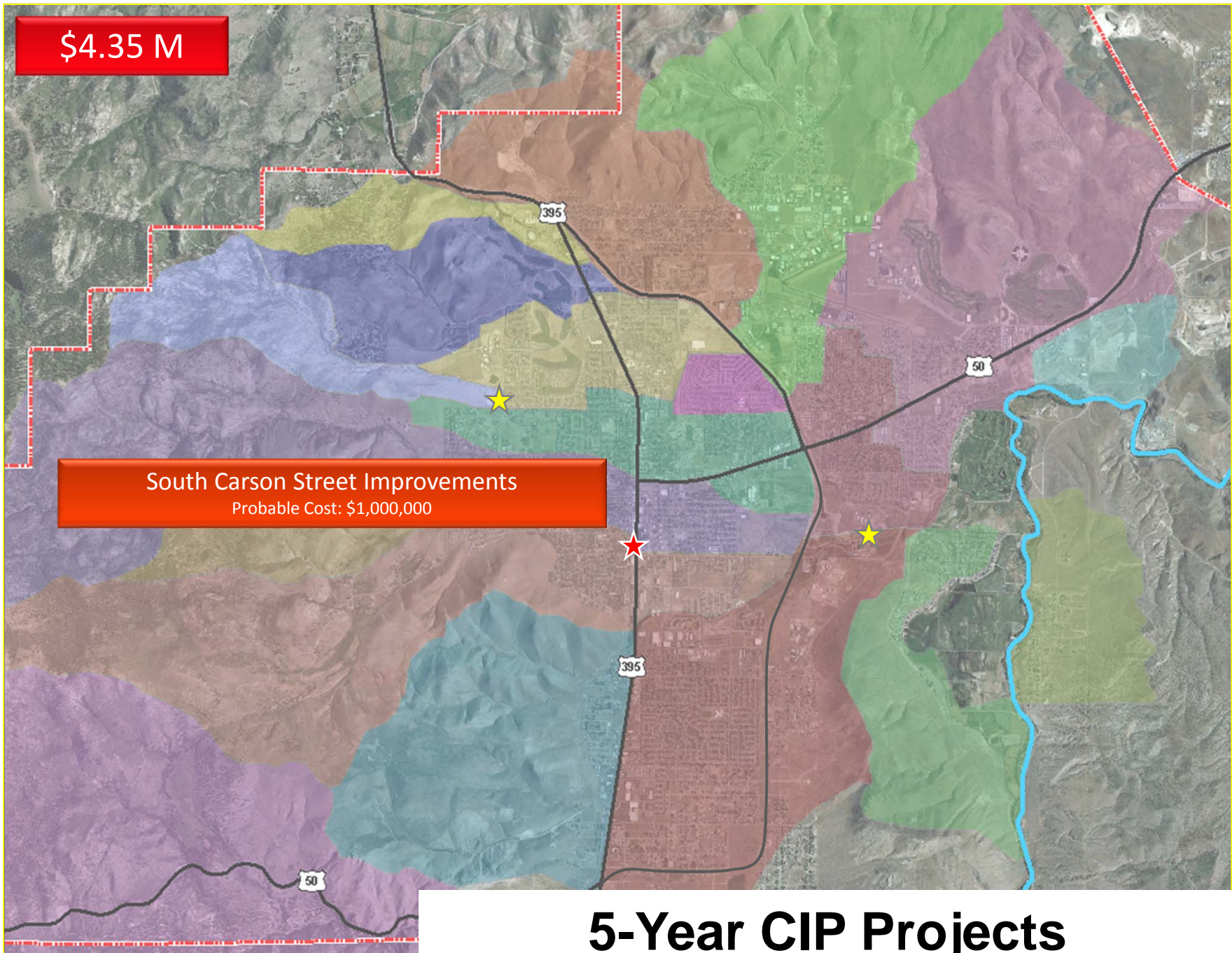
5-Year CIP Projects



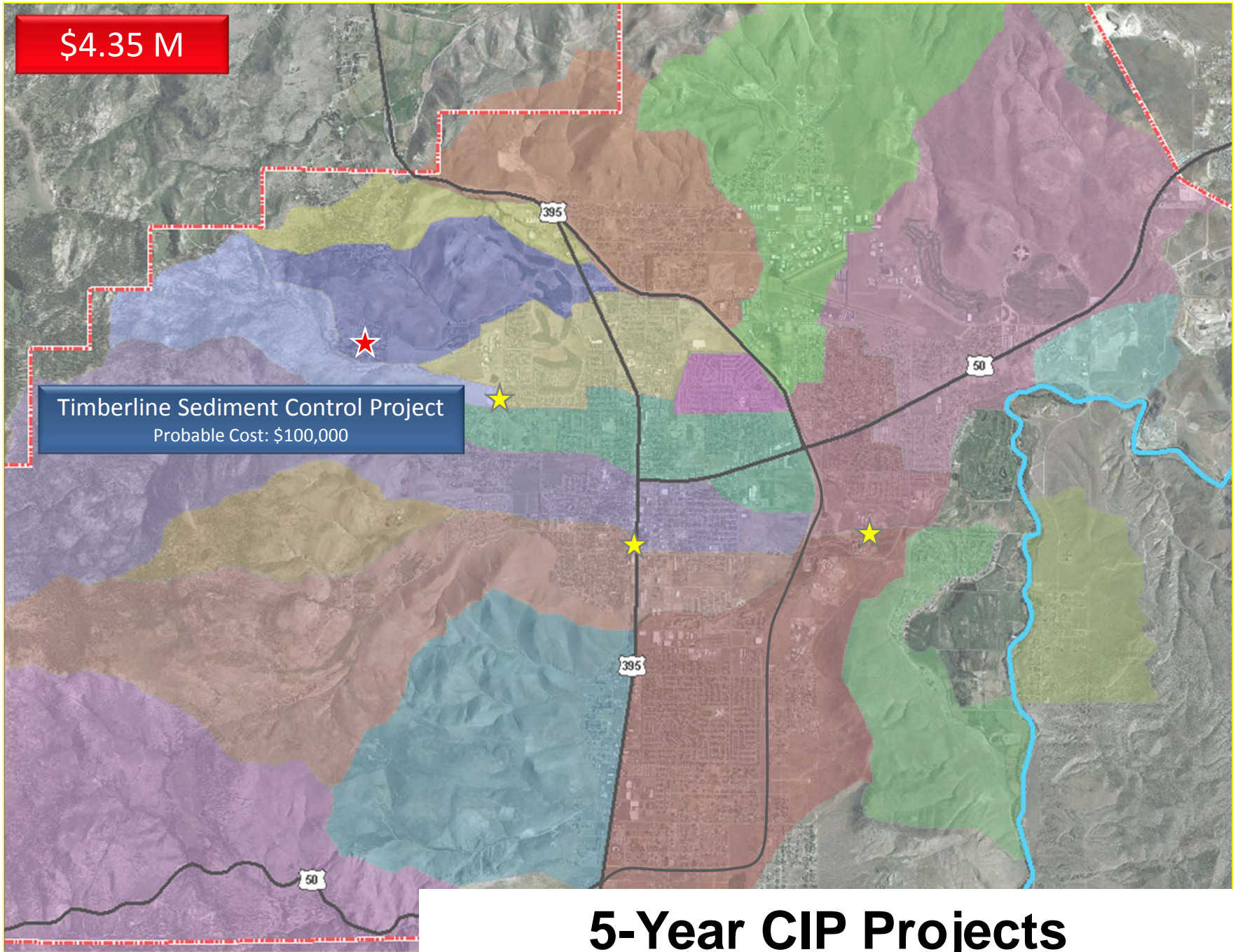
5-Year CIP Projects



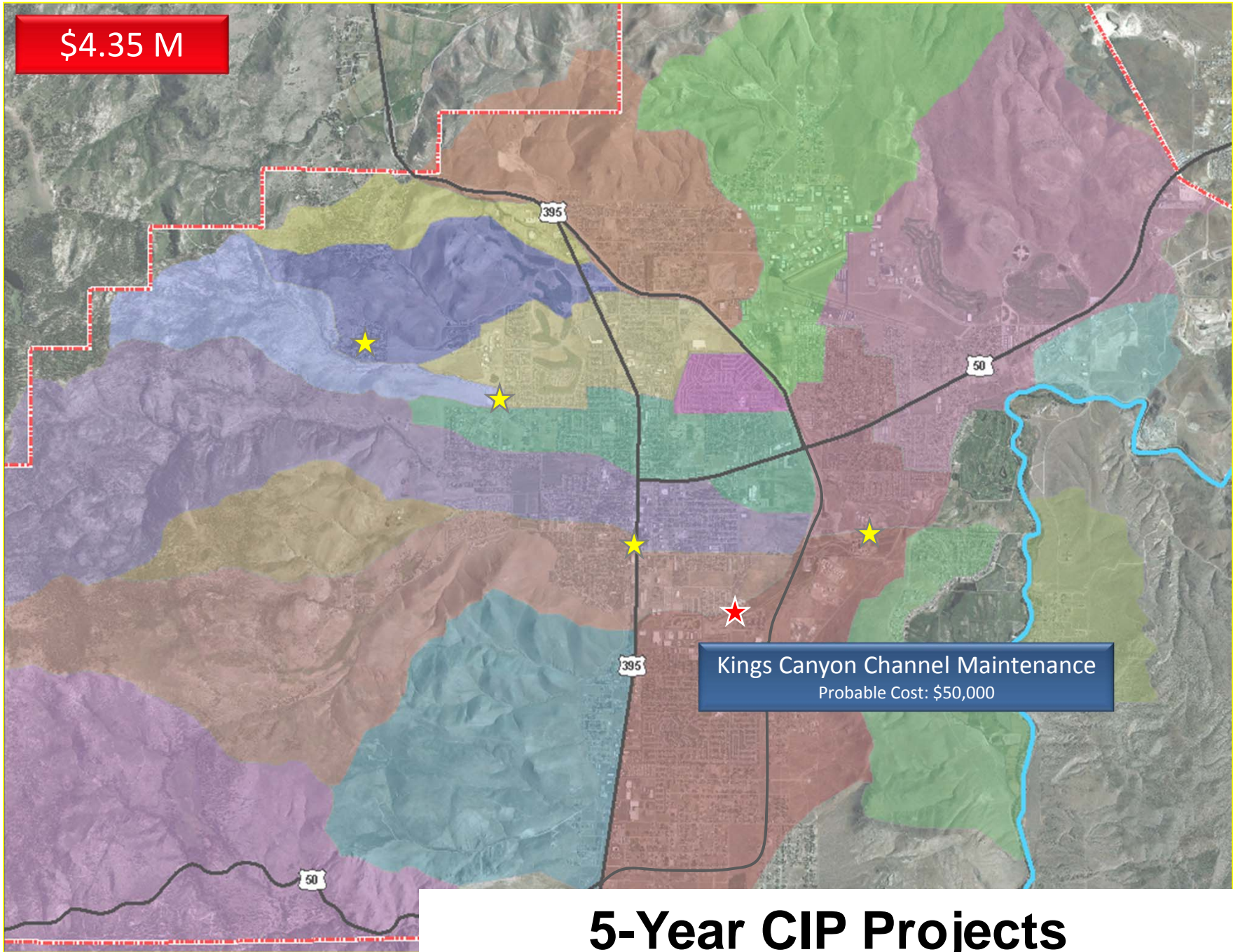
5-Year CIP Projects



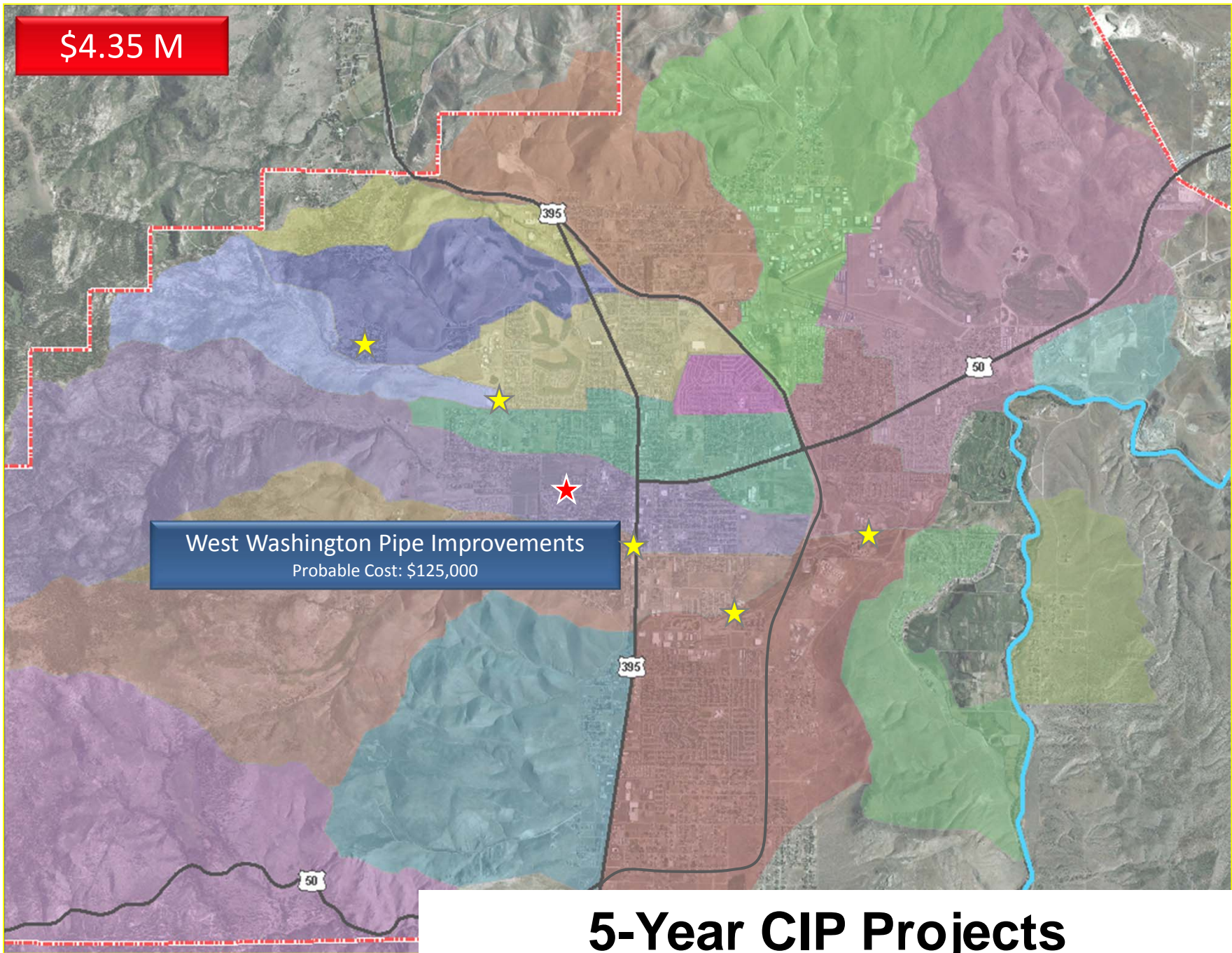
5-Year CIP Projects



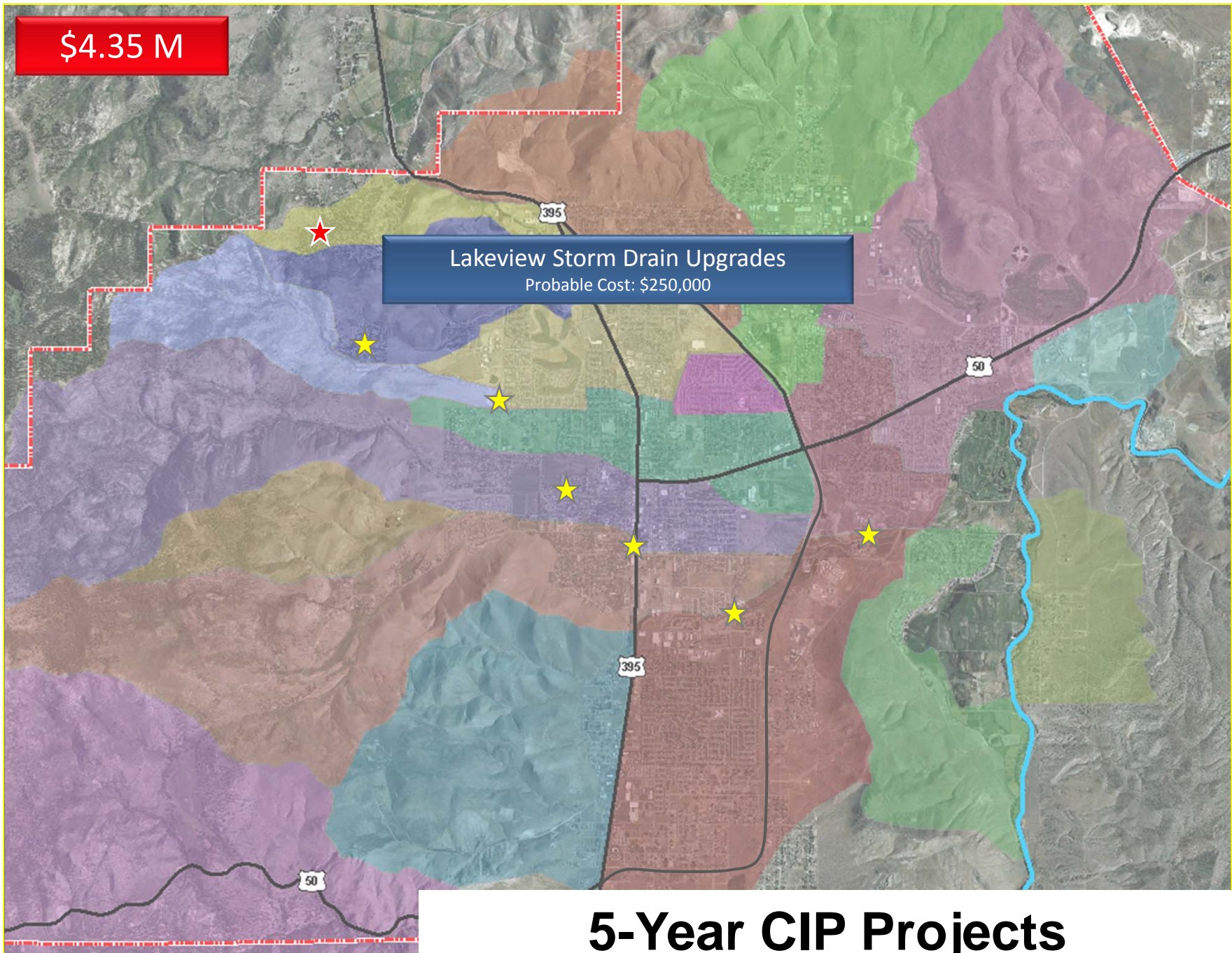
5-Year CIP Projects



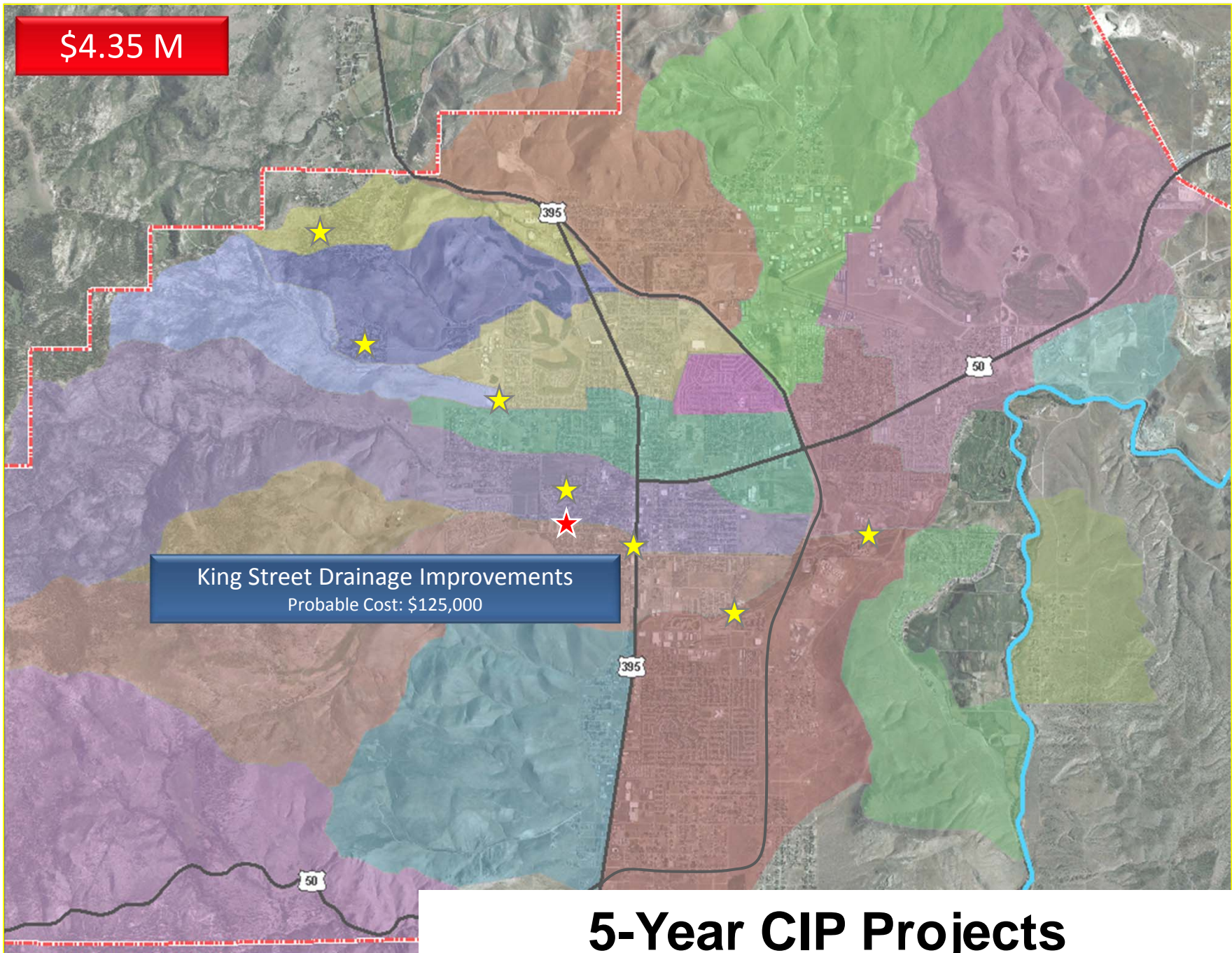
5-Year CIP Projects



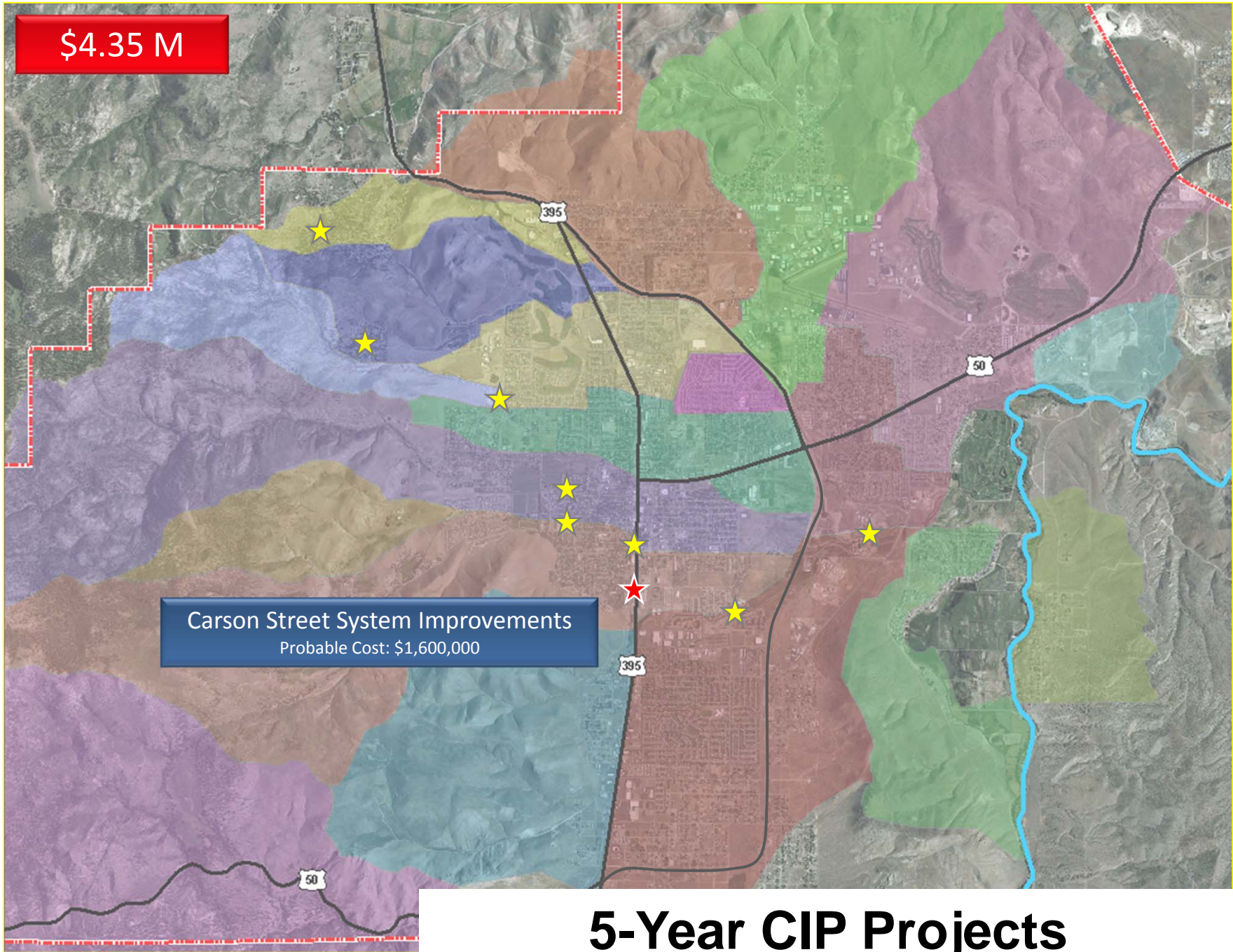
5-Year CIP Projects



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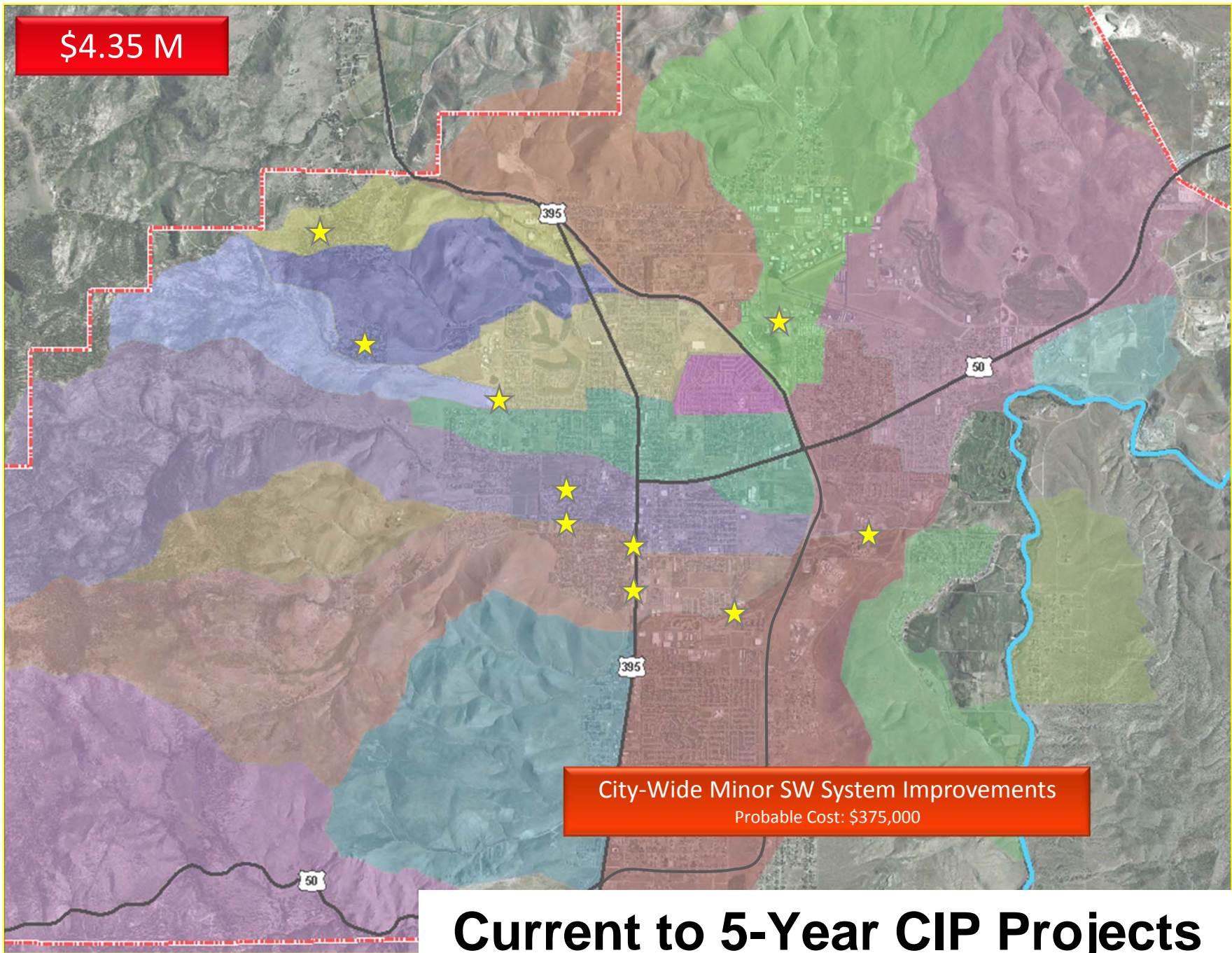
5-Year CIP Projects

\$4.35 M

Lower Goni Wash Water Quality Improvements

Probable Cost: \$100,000

Current to 5-Year CIP Projects



Current to 5-Year CIP Projects

5-Year CIP Projects

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Comments and Questions