

# Sheckler Shunt, Churchill County & Smelter Creek, Douglas County Floodplain Management Forum April 22, 2015

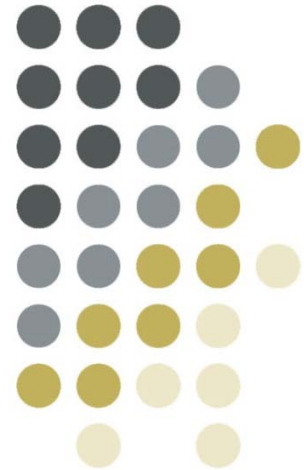
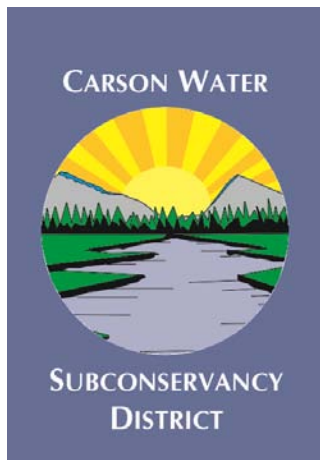
Presenter: Robert O. Anderson, P.E., CFM,  
WRS

Acknowledgements:

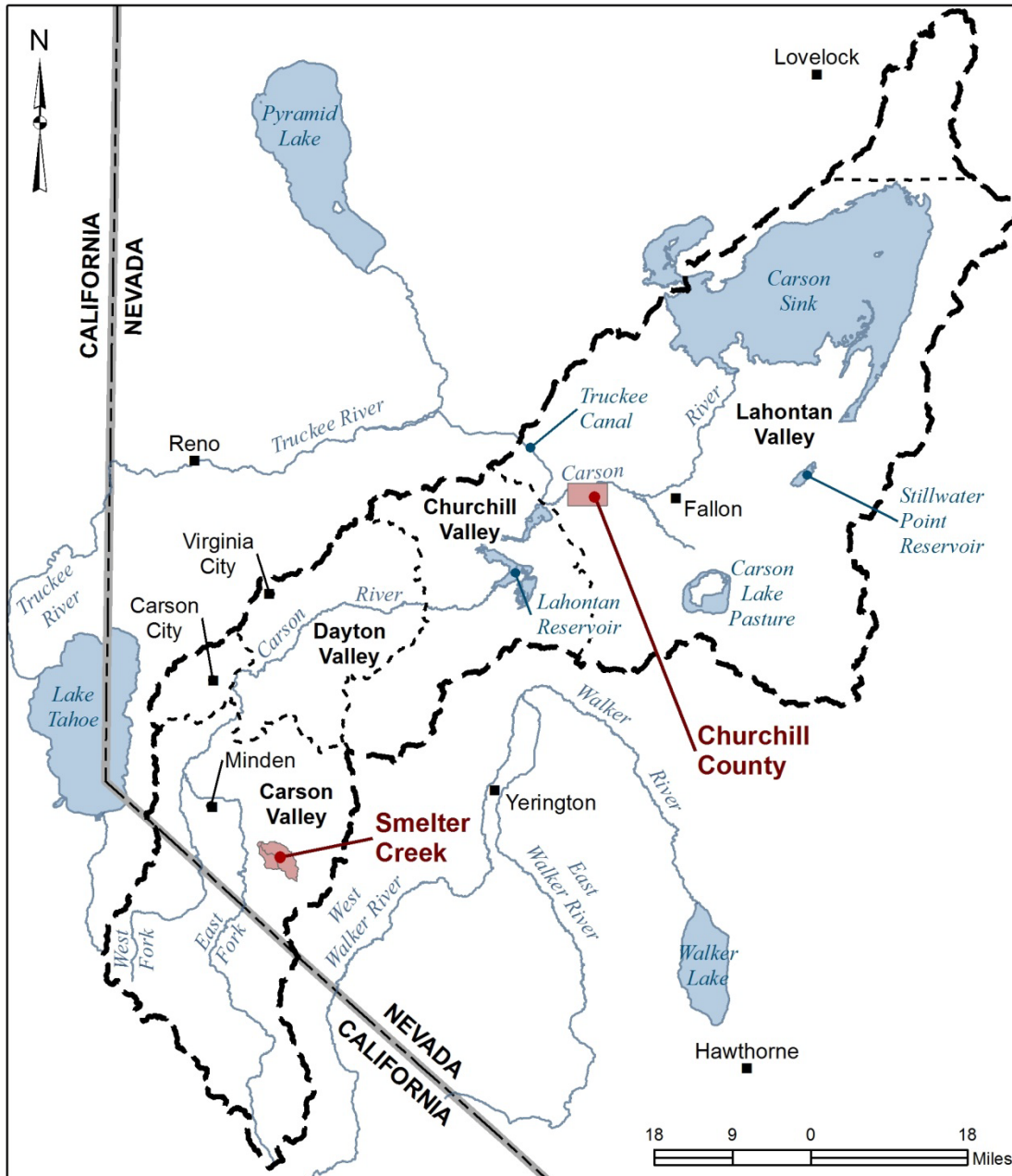
Shaker Gorla, P.E., CFM

Stephanie Hicks, AICP, CFM

David Thompson, PhD, P.E., D.WRE,  
CFM



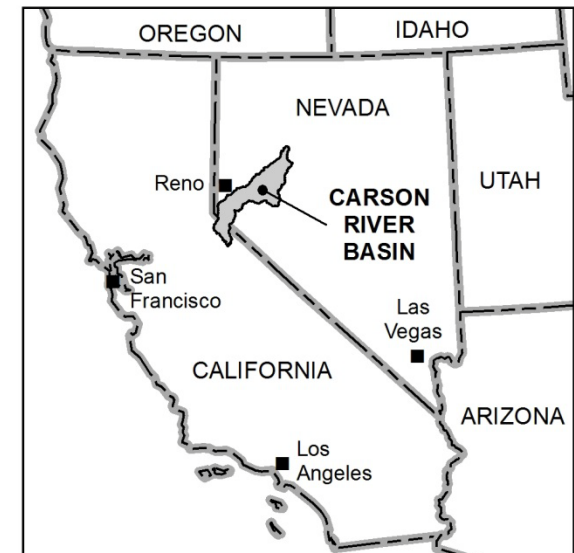
R|O|Anderson



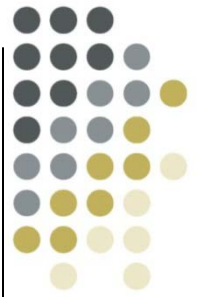
## CARSON RIVER BASIN PROJECT LOCATIONS

### Legend

- CARSON RIVER BASIN
- HYDROGRAPHIC AREAS



# Sheckler Shunt - Problem



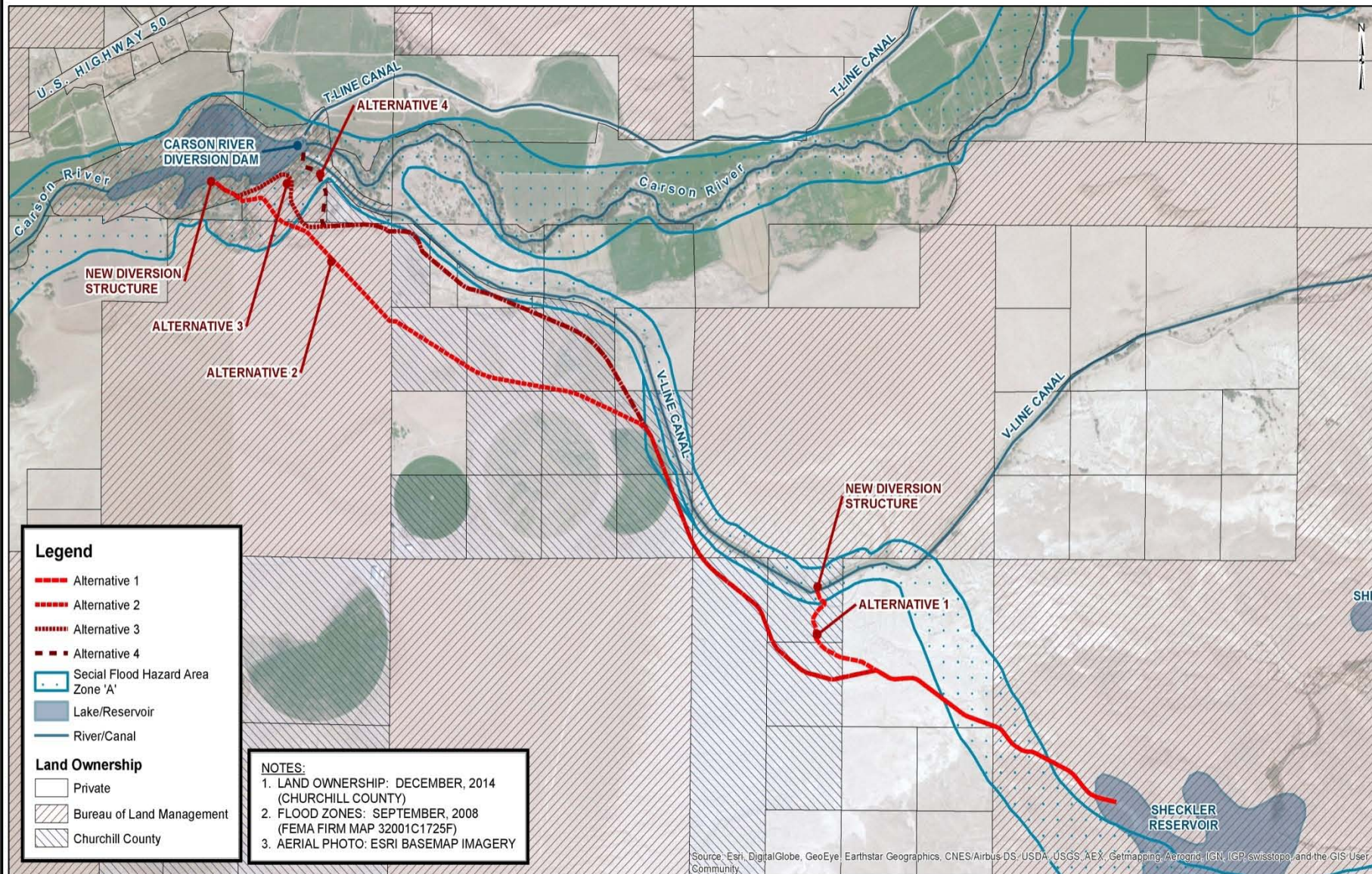
- City of Fallon & unincorporated Churchill County are located downstream from Lahontan Reservoir.
- Estimated peak flow reaching Carson River Diversion Dam is 3,100 cfs.
- Exploring possibility of diverting 1,200 cfs toward Sheckler Reservoir.

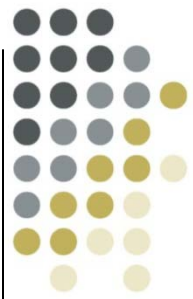




# Flood Relief Alternatives for Carson River Downstream from Lahontan Reservoir, Churchill County, Nevada – Feasibility Engineering Study

## EXHIBIT 3: ALIGNMENT ALTERNATIVES





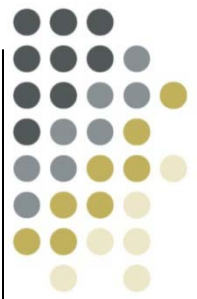
# Analysis

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- Use the collected topographic data to identify at least two potential routes for diverting flood flows during flood events on the Carson River below Lahontan Reservoir.
- Develop feasibility-level designs for conveying flood flows along the identified routes.
- Provide an engineer's estimate of probable construction cost for each of the identified alternatives.

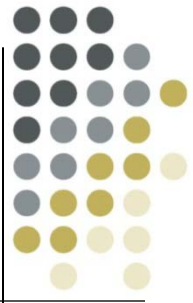
# Alternatives

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- Alternative 1 \$7.5M
- Alternative 2 \$10.1M
- Alternative 3 \$8.8M
- Alternative 4 \$7.5M
- Alternative 5 \$3.3M

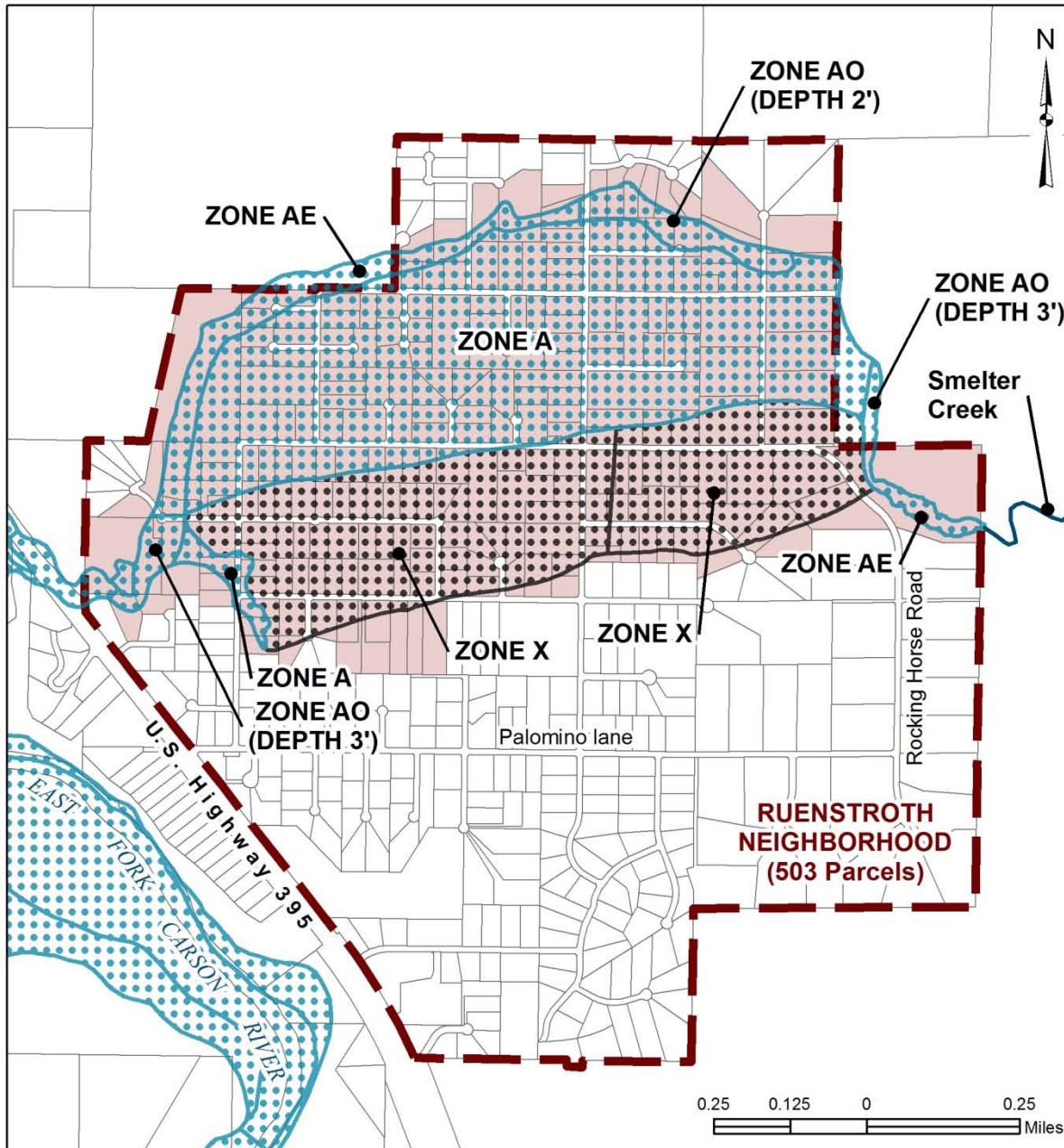




# Smelter Creek - Problem





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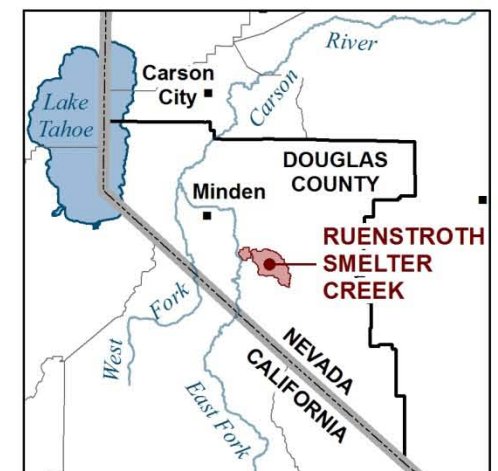
- Ruhenstroth Subdivision in Douglas County – 244 houses affected
- Estimated 100-year peak flow is 1,050 cfs
- Damages to properties, roads and road crossings
- Floodplain extends from Palomino to Riverview Drive/Muller Parkway



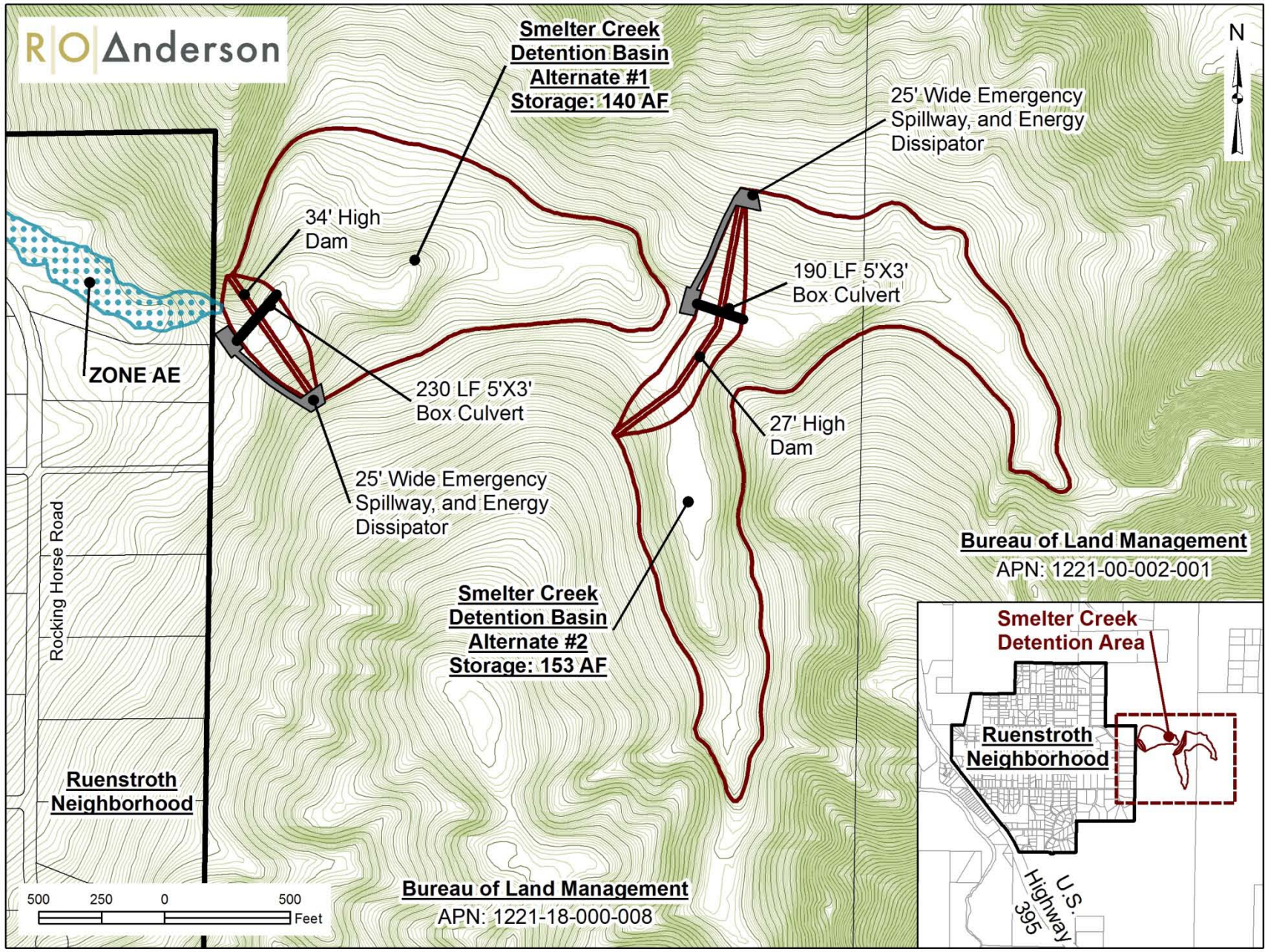
## RUENSTROTH EFFECTIVE FLOOD CONDITIONS

### Legend

-  SPECIAL FLOOD HAZARD AREA
-  SHADED ZONE X
-  RUENSTROTH NEIGHBORHOOD
-  244 PARCELS IN FLOOD ZONE

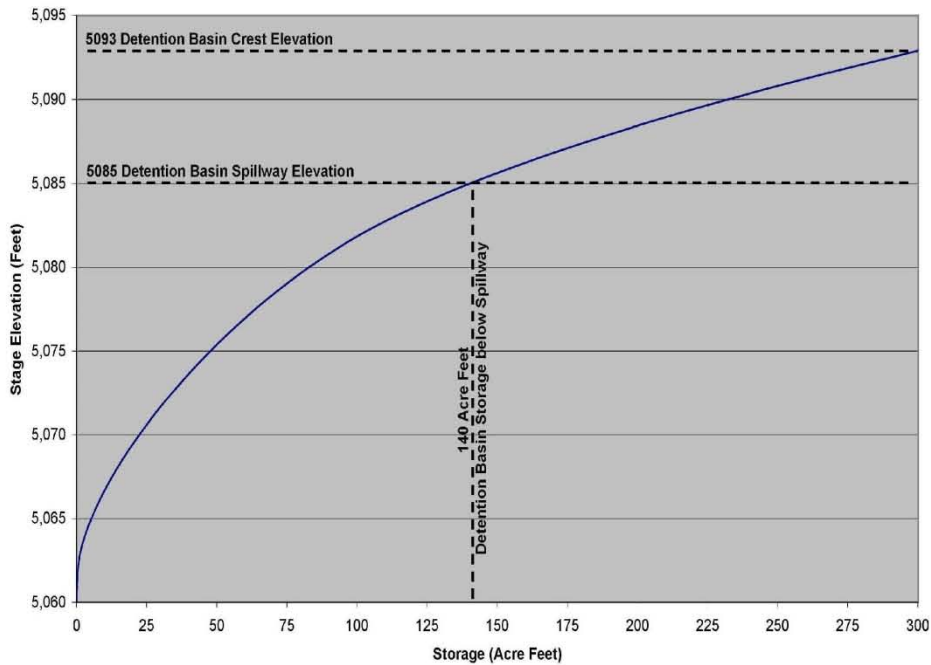




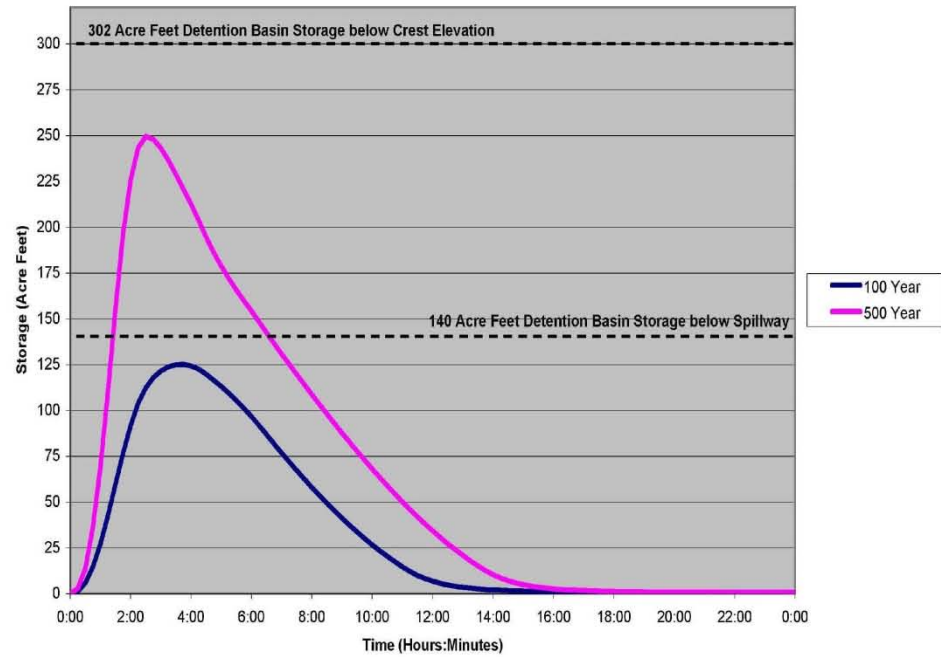




Smelter Creek Flood Control Project: Detention Basin Stage and Storage



Smelter Creek Flood Control Project: Detention Basin Storm Storage



**SMELTER CREEK  
FLOOD CONTROL PROJECT  
DETENTION BASIN  
STORAGE GRAPHS**

SHEET 3 OF 4



05/03/2011

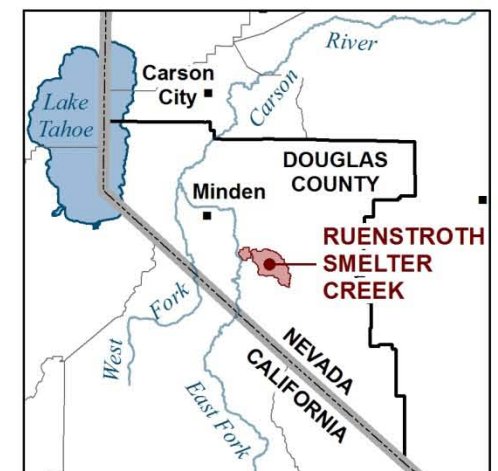
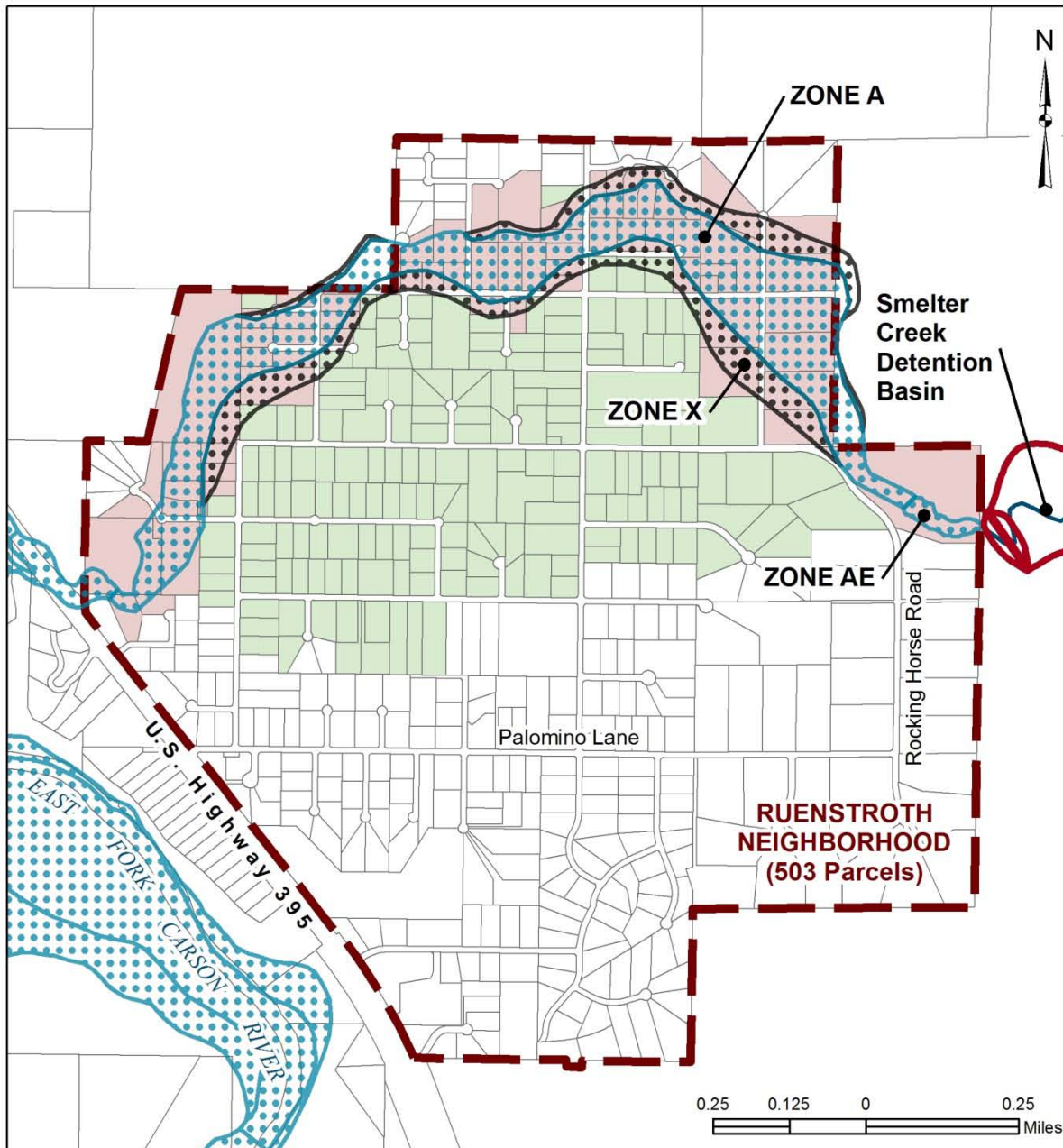
**R|O|Anderson**

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## RUENSTROTH POST PROJECT FLOOD CONDITIONS

### Legend

-  SPECIAL FLOOD HAZARD AREA
-  SHADED ZONE X
-  RUENSTROTH NEIGHBORHOOD
-  66 PARCELS IN FLOOD ZONE
-  178 PARCELS REMOVED FROM FLOOD ZONE





# ***Questions?***

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