



US Army Corps of Engineers



Truckee Meadows Nevada Flood Project Overview

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US Army Corps of Engineers



Nevada...Isn't that a desert?



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Historic Flooding in the Reno/Sparks Area

- 1996/97 Flood
 - \$500 Million in damages
 - Two deaths



Virginia Street Bridge - Downtown Reno



2005/06 Floods

- Less damage as in 96/97
- Still showed flood protection was needed



Downtown Reno





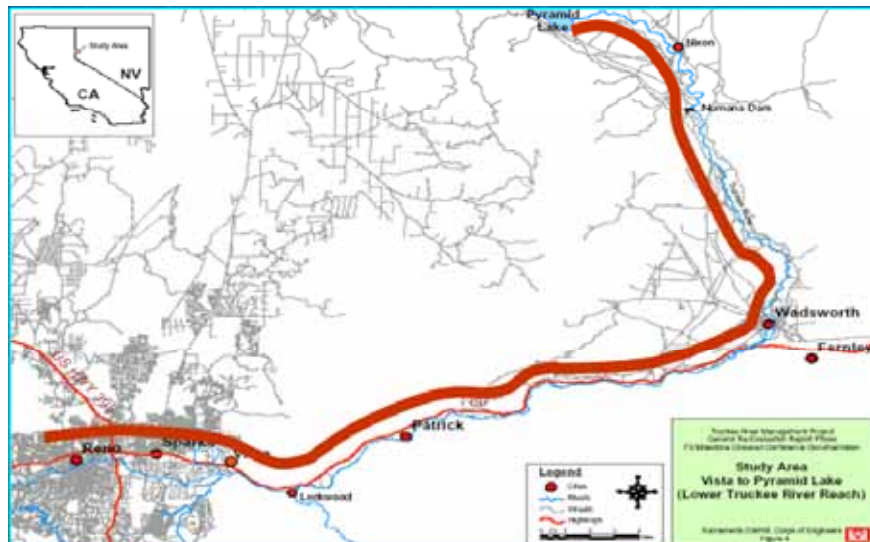
- Brief Overview of Project

- Flood risk reduction elements along ~54 miles of the Truckee River – west of Reno Nevada to Pyramid Lake.

- Levees/floodwalls
- Bridge Replacements
- River Bank Terracing/Benching
- Flood-proofing of houses



- Also includes ecosystem restoration and recreation components (cost shared).





- PM – Roger Henderson, PE
- Status of Project: General Reevaluation Report (GRR) & Preconstruction Engineering & Design (PED)
- Funding: 100% Federal
- Sponsor: Washoe County w/City of Reno and Sparks as Co-sponsors
- Congressional Interest:
 - Senators Harry Reid & John Ensign
- Milestones:
 - Draft Environmental Impact Statement/GRR & Basis of Design Jan 2011
 - Authorization ~ Fall 2011
 - Final Chief's Report: Late Fall 2011
- Current Project Construction Estimates:
 - NED ~ \$1.2 Billion
 - LPP ~ \$1.6 Billion



- Project Timeline
 - Congressional authorization in 1964 for investigation of water resource issues in the Truckee Meadows area
 - FS completed in 1985 – authorized for construction in Water Resources Development Act 1988 (\$78.4 million)
 - Project deferred during PED
 - Energy & Water Development Appropriation 1996 (PL 104-46) initiated a GRR
 - March 2003 Locally Preferred Plan (LPP) concept introduced
 - Many changes since then!



- The Flood Project is Divided into Three Major Elements
 - Downtown Reno Reach
 - Bridge replacements, floodwalls, closure structures
 - Truckee Meadows Reach (includes Sparks)
 - Floodwalls/Levees/Terracing
 - Flood-proofing homes (house raises)
 - Ecosystem Restoration
 - Recreation elements
 - Lower Truckee River Reach
 - Terracing
 - Ecosystem Restoration
 - Some levees



National Economic Development (NED) Plan vs Locally Preferred Plan (LPP)

Downtown Reno Reach

NED (1/50 Chance Event Level of Protection)	LPP (1/75 to 1/100 Chance Event Level of Projection)
Virginia Street Bridge (replace)	Similar, but with different look & higher level of protection
Sierra Street Bridge (replace)	Similar, but with different look & higher level of protection
Lake Street Bridge (replace with pedestrian bridge)	Full bridge replacement with higher level of protection
Lower Wells Ave Bridge (replace with pedestrian bridge)	Same
X - Feature not included	Center Street Bridge (replace)
X - Feature not included	Floodwalls through downtown (~ 4' high)
Fish Passage Improvements	Same
Recreation Elements	Same



National Economic Development (NED) Plan vs Locally Preferred Plan

Truckee Meadows Reach

NED (Currently being redefined)	LPP (Currently at 1/117 chance event level of protection)
Mill Street Levee	Lower Levee & lengthen McCarran Blvd Bridge
Sparks Levees & Floodwalls	Lower Levee & lengthen McCarran Blvd Bridge
Hidden Valley Non-Structural Home Raise	Same
Realignment of North Truckee Drain (Sparks)	Same
East Side Subdivision Non-Structural Home Raise	Same
Vista Narrows Widening	Same
River Bank Terracing	Same
Various Ecosystem Restoration Sites	Same
X - Feature not included	McCarran Blvd Bridge (lengthen)
X - Feature not included	Rock Blvd Bridge (lengthen)
Pioneer Ditch Relocation	Same
Clean Water Way Relocation	Same
Recreation Elements (trails, soccer/ball fields, etc)	Same



National Economic Development (NED) Plan vs Locally Preferred Plan

Lower Truckee River (east of Vista)

NED	LPP
Floodplain Benching at Canyon GID	Same
Elevated Bench at Rainbow Bend	Same
Trestle Bridge at Painted Rock Elevation	Same
Wadsworth Levee	Same
Upper Lockwood Ecosystem Restoration	Same - 1 large meander vs 3 smaller meanders
Mustang Ranch Ecosystem Restoration	Same
Tracy Pond Ecosystem Restoration	Same
102 Ranch Ecosystem Restoration	Same
Eagle Picher Ecosystem Restoration	Same
Feretto Ranch Ecosystem Restoration	Same
Railroad Cut Ecosystem Restoration	Same
1-80 Rest Stop Ecosystem Restoration	Same
Wadsworth Ecosystem Restoration	Same
Fish Passage Improvements	Same
Recreation Elements (trails, picnic areas, etc)	Same



- Unique Features of the Truckee Meadows Project
 - Sponsor Truckee River Action (TRAction) Projects
 - Section 104 – Flood Damage Reduction
 - Section 113 – Ecosystem Restoration
 - To Date:
 - 102 Ranch – Section 113
 - Lockwood – Section 113
 - North Truckee Drain – Section 104
 - Mid-Block Floodwall – Section 104
 - Reno-Sparks Indian Colony – Section 104
 - Lower Mustang Ranch – Section 113
 - Several more in planning stages
 - Virginia Street Bridge Section 104/408





Early Construction and Restoration Sites



102 Ranch – Photo by Marilyn Newton Reno Gazette Journal

Reno-Sparks Indian Colony Floodwall



- FY09 Tasks

- ~ \$1.5 M Hydraulic & Civil Design/EIS task order
 - Finish up flood plain definitions
 - Finish fish passage conceptual designs
 - Prelim draft EIS
 - Interior drainage design
- ~ \$1.7 M Geotechnical Investigations task order
 - Used \$630,000 ARRA funds
 - Investigation from I-395 to Vista
 - Support early PED activities in FY10





- FY10 Funding
 - \$6.724 million in draft House/Senate conference report
- FY10 Tasks
 - Sedimentation study
 - Update bathymetry & topography east of Vista to Wadsworth
 - Design of fish bypass/ladder features
 - Geotechnical investigation from Reno to I-395 & from Vista to Wadsworth
 - Preconstruction ecosystem site monitoring, utility surveys, etc.



Questions?
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