

RECLAMATION

Managing Water in the West

Status Meeting – August 27, 2009
Proposed Environmental Assessment
Alternatives for
Lower Deer Flat Dam
Security
Enhancements

Pacific Northwest Region

Boise Project, Idaho



U.S. Department of the Interior
Bureau of Reclamation

Aerial View Lower Deer Flat Dam



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Background:

Based on Homeland Security Directives and the definition of critical infrastructure contained in the USA Patriot Act, Reclamation has designated Lower Deer Flat Dam as a Mission Critical Facility.



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Consequences:

The loss of the dam would generate catastrophic consequences in the downstream floodplains.

- **Downstream damages to property**
- **Loss of irrigation benefits**
- **Loss of fish and wildlife benefits**
- **Loss of recreation benefits**

Project Overview

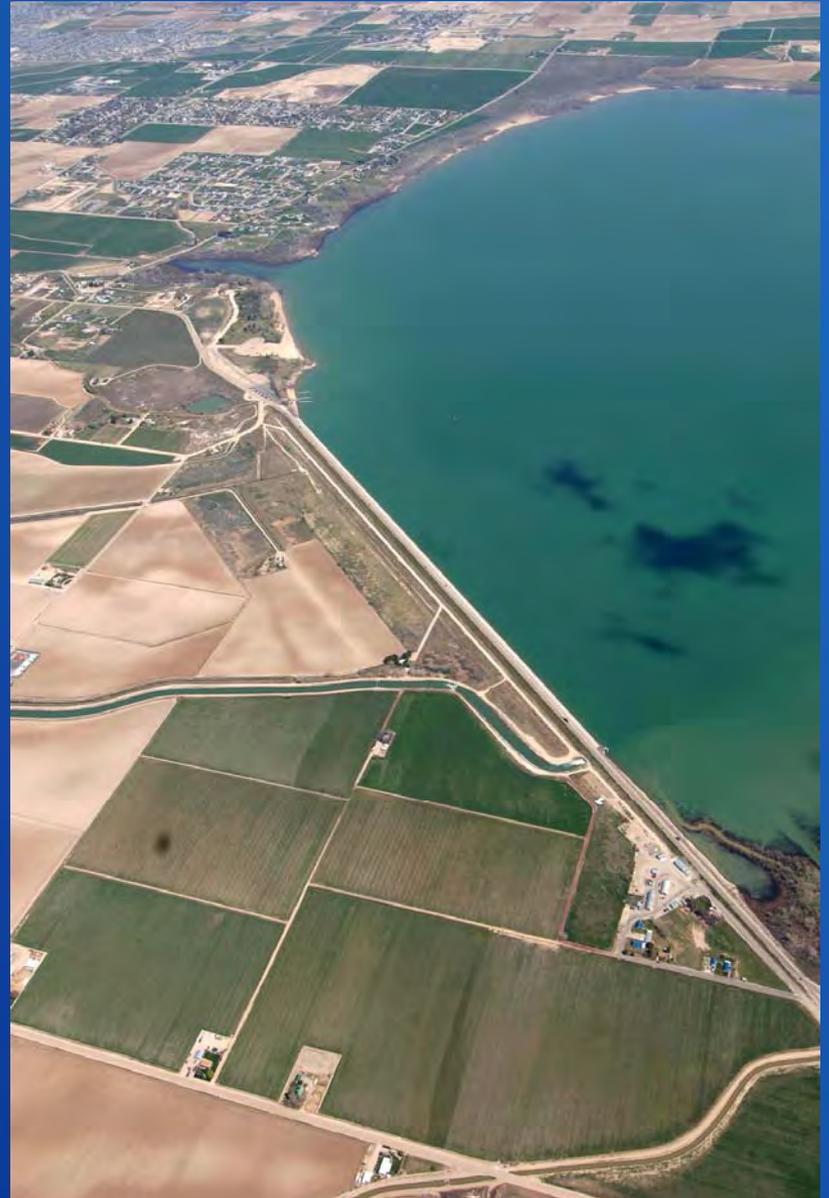
Completed Processes

- Security assessments
- Risk reduction decisions
- Site security plan
- Evaluation of alternative security enhancements

Future Actions

- NEPA compliance
- Implementation of selected action

For security and public safety considerations, Reclamation is planning to implement short and long term corrective actions for Lower Deer Flat Dam.



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Short Term Actions:

- Reclamation has purchased, U.S. State Department certified, vehicle (crash-rated), moveable-barriers.
- Reclamation had the moveable-barriers delivered in November 2008.
- The moveable-barriers will normally remain off-site until needed.



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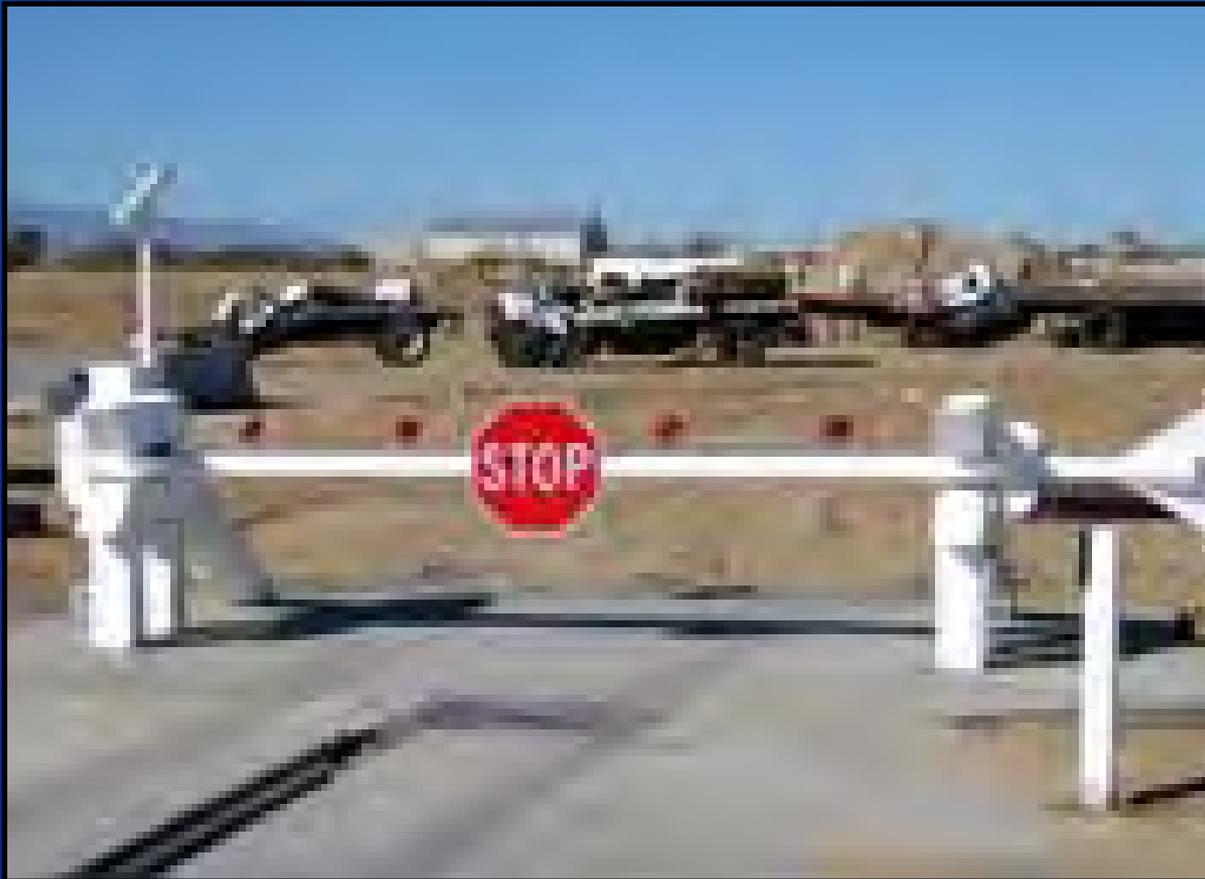
Short Term Actions:

- When Threat Conditions increase or there is a direct threat to the dam, the mobile barriers will be moved to both ends of the dam to temporarily restrict vehicle traffic across the crest of the dam.



Long Term Action:

- A decision on which vehicle restriction alternative to be implemented will be made after the NEPA process is completed.
- Pedestrians, bicycles, etc. will still have access to the crest of the dam.



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Long Term Alternatives:

Several options are available that provide a long term solution as well as satisfy Reclamation's obligation to Canyon County, US Fish & Wildlife Service, and Boise Project Board of Control for providing vehicular access.

Alternatives currently identified include:

- **Alternative A** – No Action (will not meet purpose and need to correct security vulnerabilities at Lower Deer Flat Dam)
- **Alternative B** – Close dam crest and re-route traffic to other county roads
- **Alternative C** – Close dam crest and construct a new Riverside road on the down-stream toe of the dam
- **Alternative D** – Close dam crest and construct a new Riverside road 700 feet down-stream
- **Alternative E** – Widen the down-stream dam crest (No roadway modification)

Alternative B

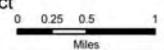
Close dam crest and require vehicular traffic to detour using existing county roads (Mainly Karcher Road-Hwy 55, Malt Road).



**Figure 2-2 - Alternative B: Close Dam Crest/
Reroute Traffic to Existing County Roads**
Deer Flat Dam Lower Embankment Security Enhancement Project

Disclaimer: This map is intended for general informational and planning purposes only. The Bureau of Reclamation makes no warranty, expressed or implied, as to the completeness, accuracy, or utility of these data and will not be liable for their use beyond the above expressed purpose.

Data Sources: Canyon County, Bureau of Reclamation
Map Date: June, 2008



Alternative B

Close dam crest and require vehicular traffic to detour using existing county roads (As Potential Mitigation Road Improvement to Malt & Riverside Roads).



**Figure 3-2. Alternative B: Close Dam Crest
with Potential Malt Road Improvements**
Deer Flat Dam Lower Embankment Security Enhancement Project

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0 250 500 1,000
Feet

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Alternative C

Downstream Alignment at Toe of dam

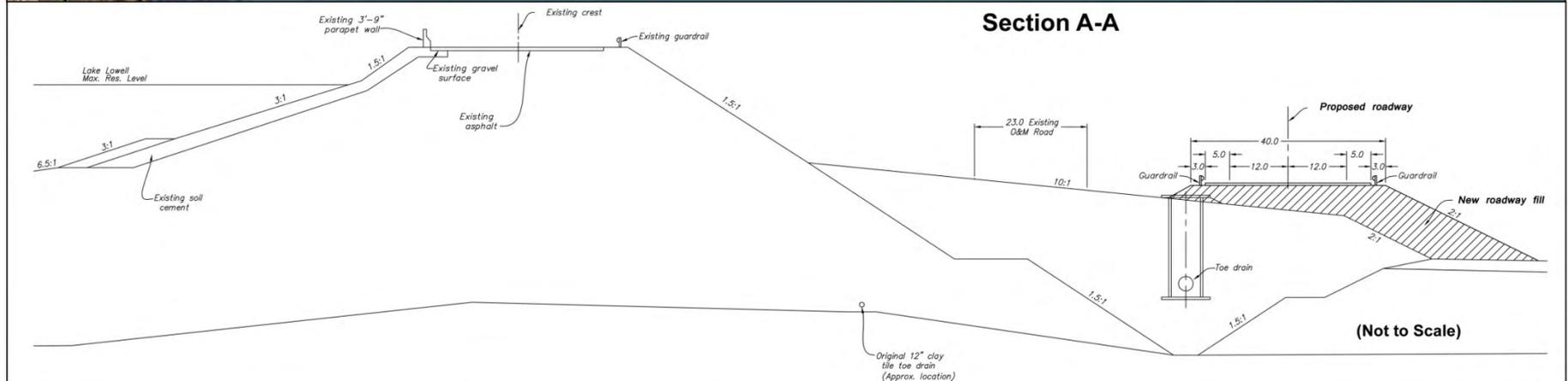
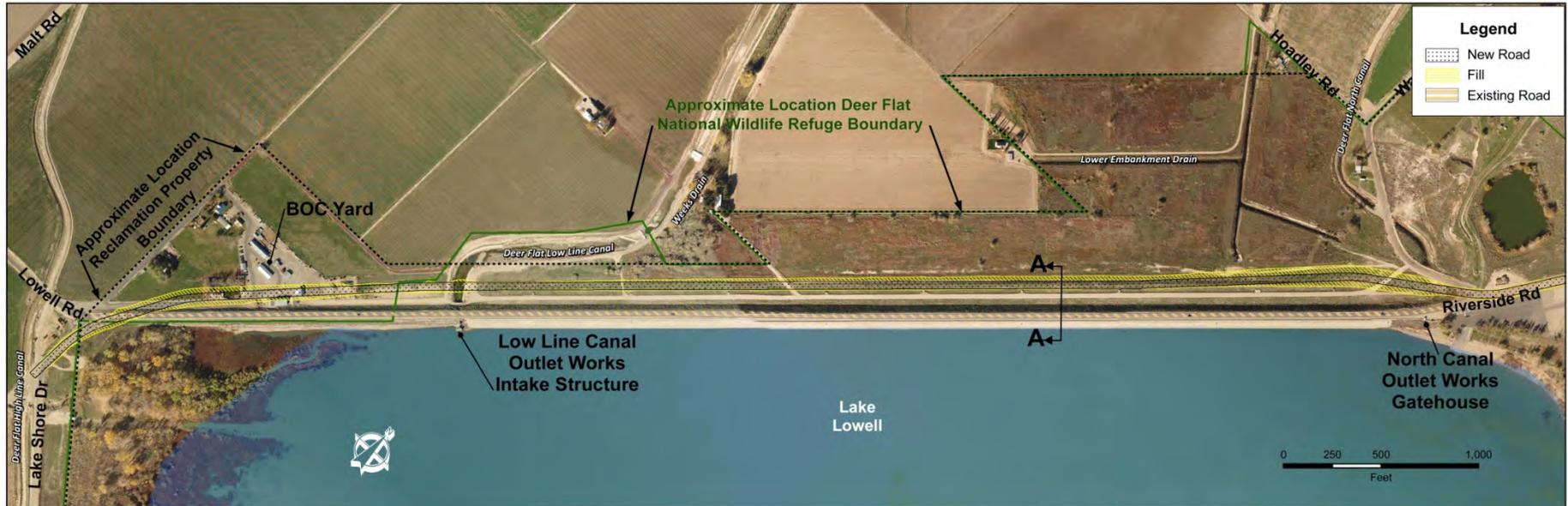


Figure 2-3 - Alternative C: Close Dam Crest/Relocate Riverside Road to Downstream Toe
Deer Flat Dam Lower Embankment Security Enhancement Project

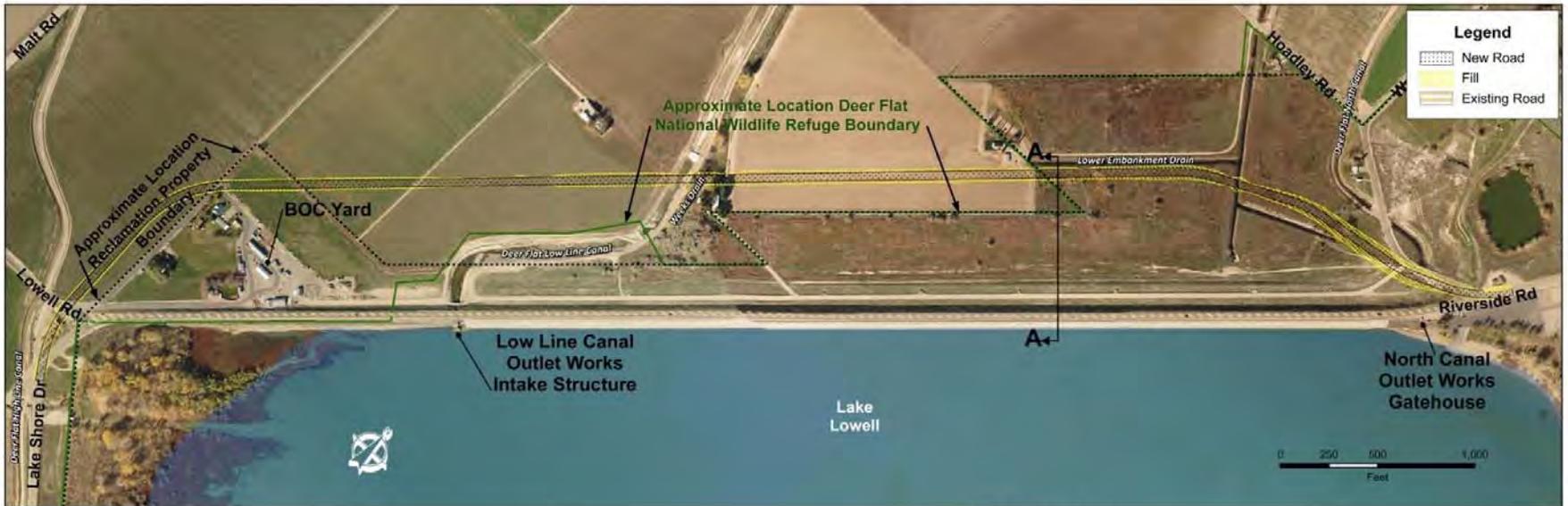
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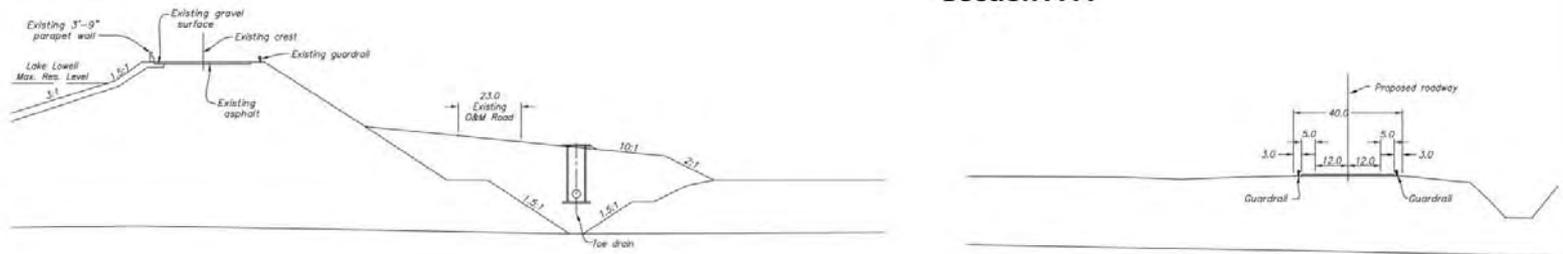
Map Date: July, 2009

Alternative D

Build a roadway 700 feet downstream of the dam that would connect to existing roads on both sides of the dam.



Section A-A



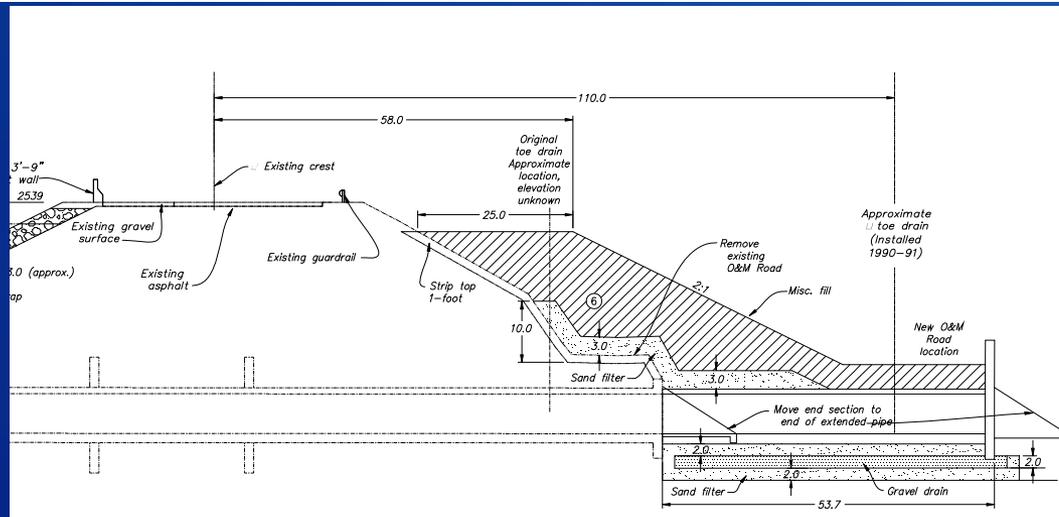
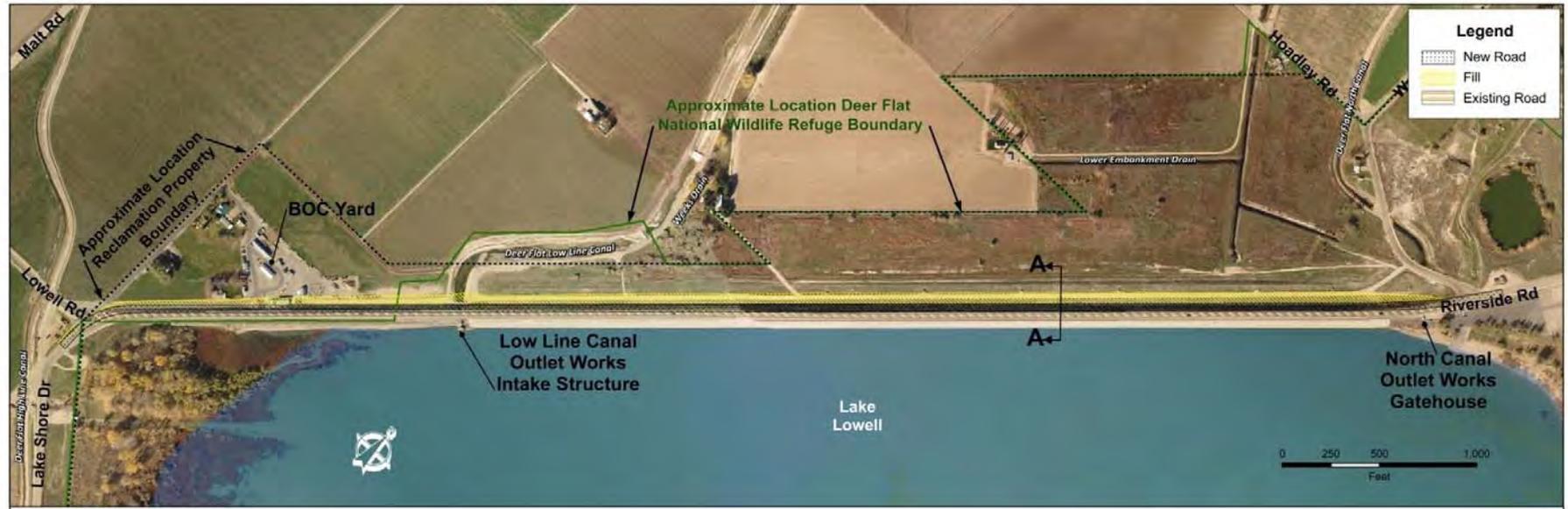
(Not to Scale)

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Figure 2-5 - Alternative D: Close Dam Crest/Construct Riverside Road 700 Feet Downstream from Toe
 Deer Flat Dam Lower Embankment Security Enhancement Project

Alternative E

Downstream Widening (No Roadway Modification)



Comparative Analysis of Alternatives

Comparison of Alternatives			
Alternative	Advantages	Disadvantages	Estimated Cost
Alternative A - No Action	None	Doesn't meet Purpose and Need	Not applicable
Alternative B – Close Dam Crest/Reroute Traffic on Malt Road and other County roads	<ul style="list-style-type: none"> ▪ No structural dam modifications ▪ Cheapest Alternative 	<ul style="list-style-type: none"> ▪ Transportation ▪ Socioeconomic 	Less than \$2 million
Alternative C – Close Dam Crest/Relocate Riverside Road to Downstream Toe	<ul style="list-style-type: none"> ▪ No structural dam modifications ▪ Minimal crest road traffic disruption during construction ▪ Conventional construction methods ▪ No land acquisition required ▪ Less expensive most other alternatives ▪ Will incorporate SOD fix 	<ul style="list-style-type: none"> ▪ Long distance of about 7,800 feet ▪ All materials commercially purchased ▪ Loss of 5 BPBOC buildings, including one house ▪ Requires one bridge crossing ▪ Impact Toe Drain and siphon 	\$16.5 million
Alternative D – Close Dam Crest/Construct Riverside Road 700 Feet Downstream from Toe	<ul style="list-style-type: none"> ▪ Conventional construction methods ▪ No structural dam modifications ▪ No impacts to BPBOC yard or structures 	<ul style="list-style-type: none"> ▪ Large cost for land acquisition ▪ Requires two bridge crossings ▪ Conflicts at existing intersections (Lowell and Wagner roads) ▪ Roadway transition grade issues 	\$11.5 million <u>Does Not</u> include land acquisition

Comparative Analysis of Alternatives - Cont

Comparison of Alternatives			
Alternative	Advantages	Disadvantages	Estimated Cost
Alternative E – Widen Downstream Dam Crest	<ul style="list-style-type: none"> ▪ No structural modifications to existing crest roadway ▪ No impacts to historical parapet walls ▪ No impact to basalt walls or riprap ▪ Minimal grade and intersection conflicts ▪ Minimal environmental impacts ▪ Conventional construction methods ▪ Minimal traffic disruptions ▪ Will incorporate SOD fix 	<ul style="list-style-type: none"> ▪ All materials must be commercially purchased ▪ Long distance at about 7,200 feet ▪ Some ROW acquisition may be required at left abutment ▪ Three BPBOC buildings impacted ▪ Traffic disruption 	\$8.5 million

NEPA Process

Environmental Assessment (EA)

- Public Scoping/Issue Identification  Done
- Develop range of alternatives  Done
- Analyze impacts of alternatives  Ongoing
- Draft EA distributed for public comment  November 2009
- Final EA and decision document (FONSI)  May 2010
- Implement Security Measures  Summer 2010

Impacts to be Analyzed in the EA

- **Transportation (travel time, emergency response, traffic safety etc.)**
- **Economic (businesses, property values, cost of project to taxpayers)**
- **Quality of Life (noise, traffic patterns, safety etc.)**
- **Recreation**
- **Historic Integrity of Dam**
- **Esthetic**
- **Fish and Wildlife**

Contacts

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