

RECLAMATION

Managing Water in the West

Status of Proposed Environmental Assessment Alternatives for Lower Deer Flat Dam Security Enhancements January 27, 2010

Pacific Northwest Region

Boise Project, Idaho



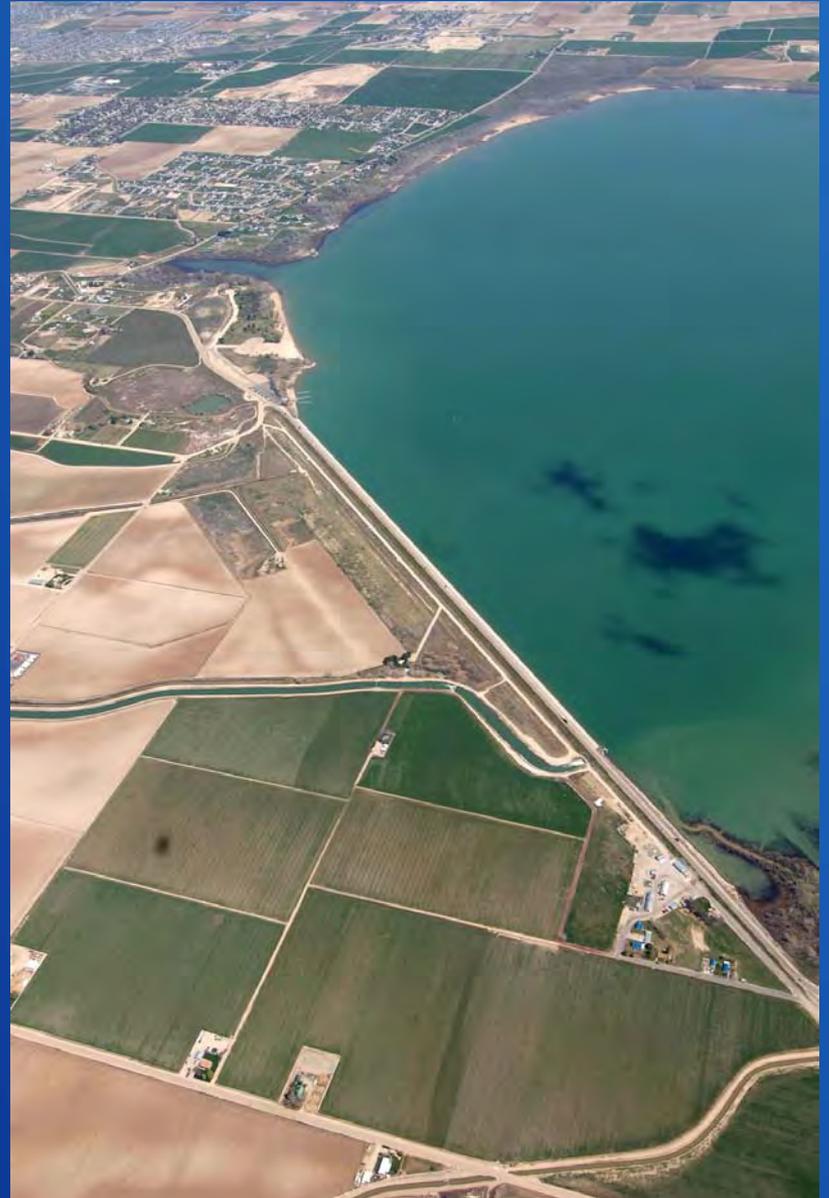
U.S. Department of the Interior
Bureau of Reclamation

Aerial View Lower Deer Flat Dam



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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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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

Have deleted

- **Alternative E** – Construct a center barrier on the dam crest
- **Alternative F** – Widen the down-stream dam crest and move traffic D/S

Now have:

- **Revised Alternative F and it is now Alternative E** – Widen the down-stream dam embankment (No roadway modification)

There is no Preferred Alternative

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Alternative B

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



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

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Data sources: Canyon County, Bureau of Reclamation
Map Date: June, 2009

0 0.25 0.5 1
Miles

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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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Data sources: Canyon County, Bureau of Reclamation
Map Date: July, 2009

0 250 500 1,000
Feet

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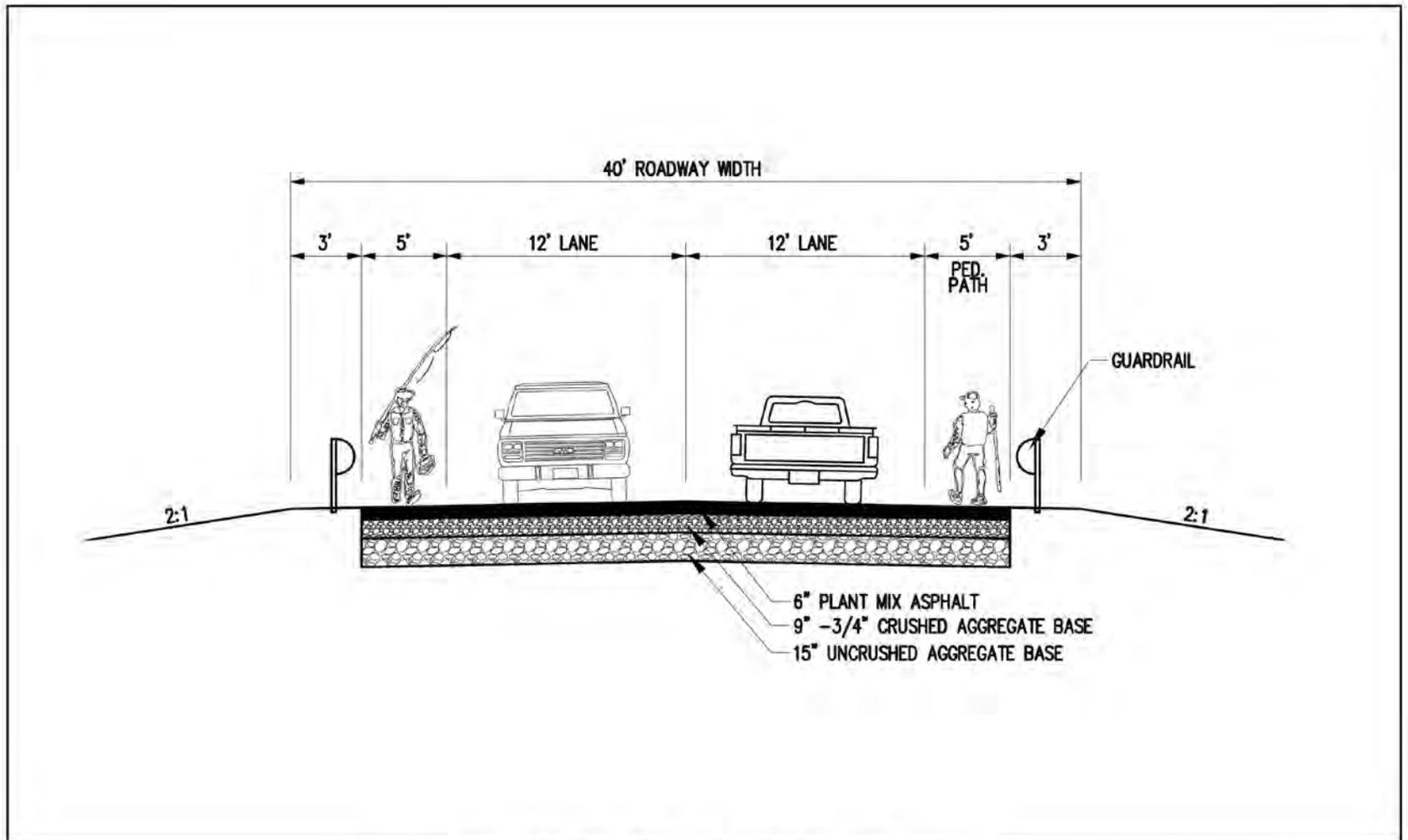


Figure 2-1. Riverside Road Typical Cross Section
Deer Flat Dam Lower Embankment Security Enhancement Project

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Alternative C

Downstream Alignment at Toe of dam

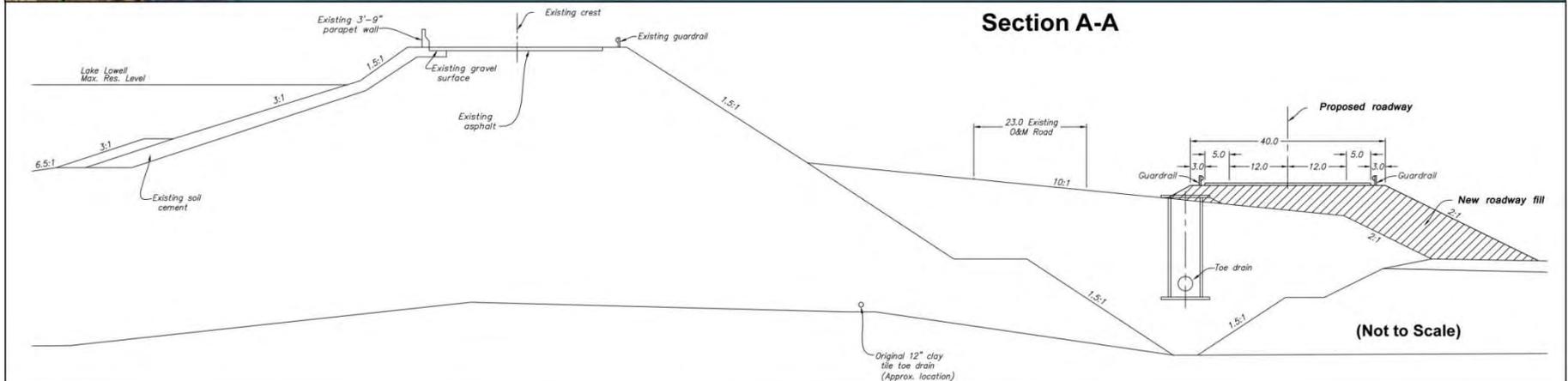
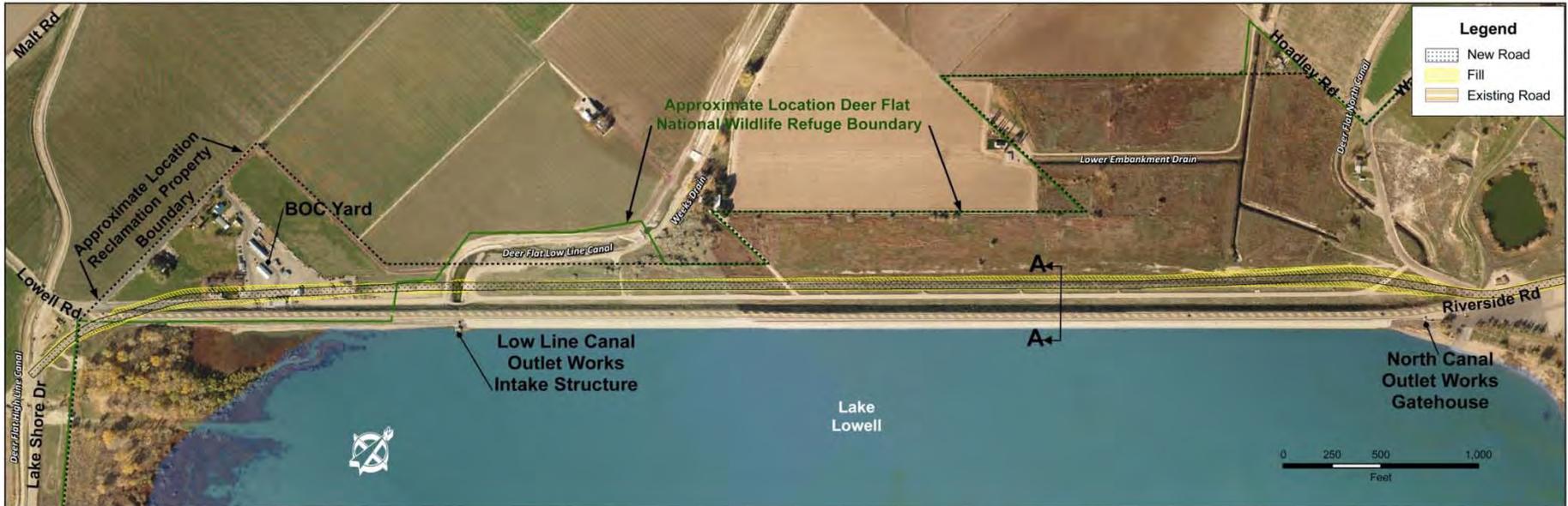


Figure 2-3 - Alternative C: Close Dam Crest/Relocate Riverside Road to Downstream Toe
Deer Flat Dam Lower Embankment Security Enhancement Project

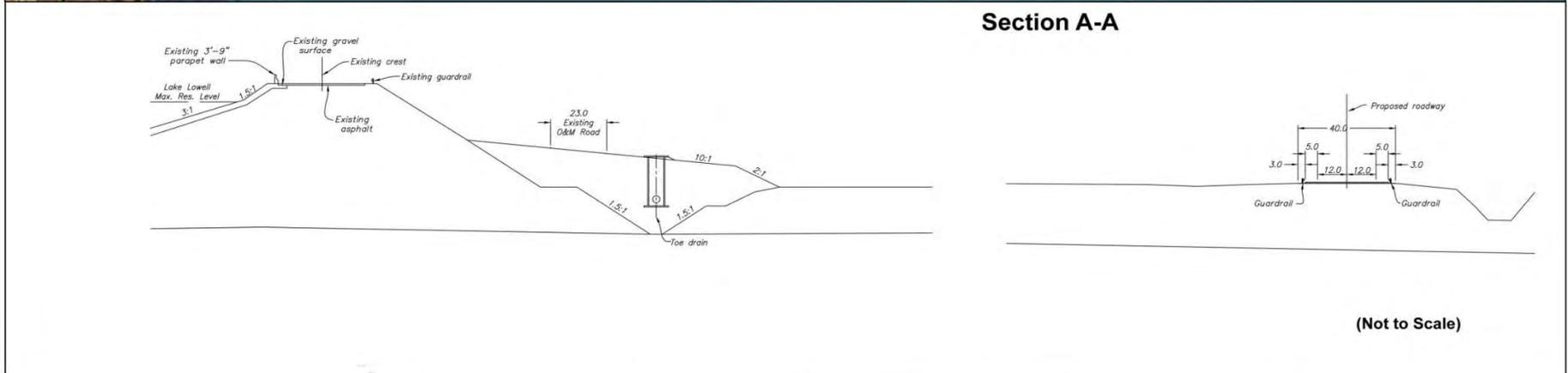
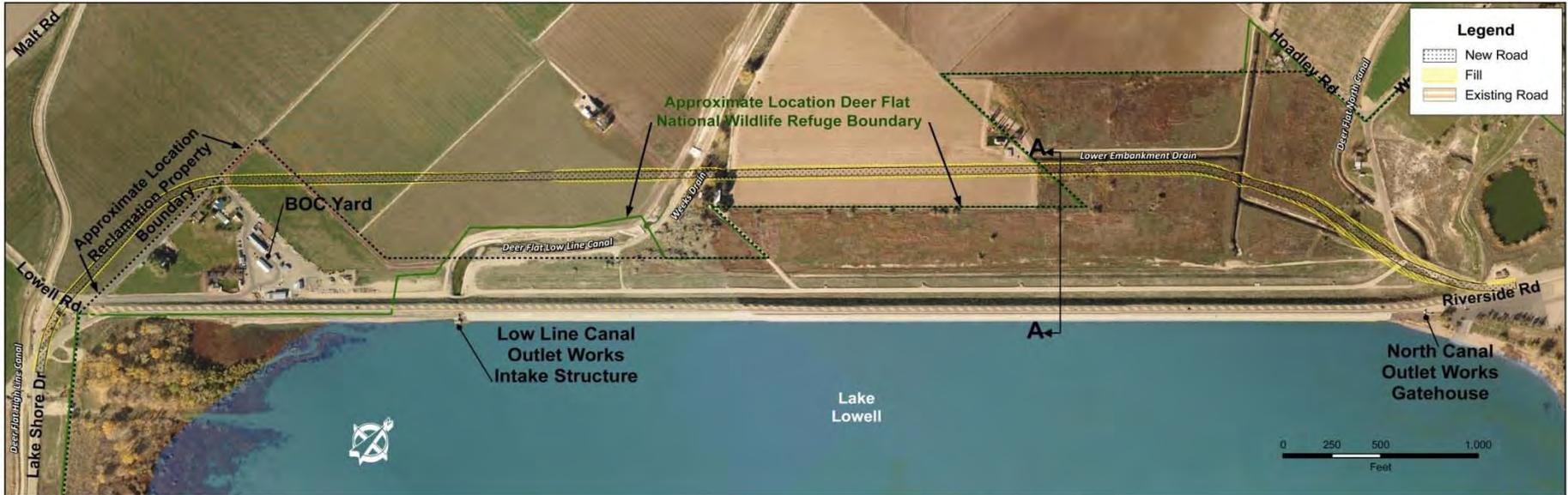
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Data Sources: Canyon County, Bureau of Reclamation

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

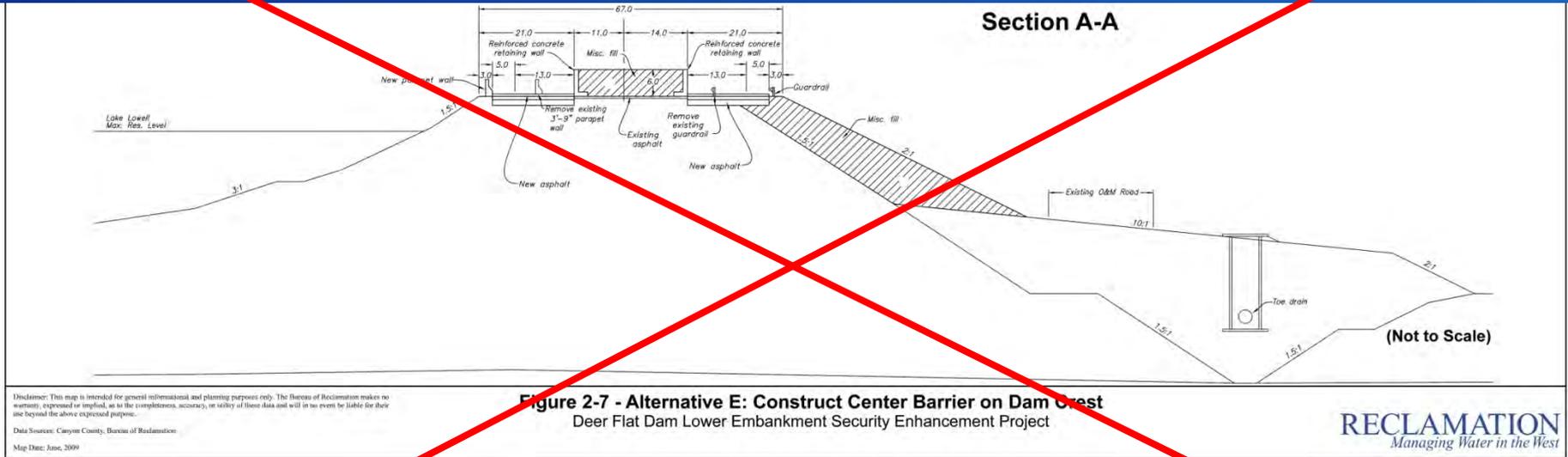


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 Data Sources: Canyon County, Bureau of Reclamation
 Map Date: June, 2009

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

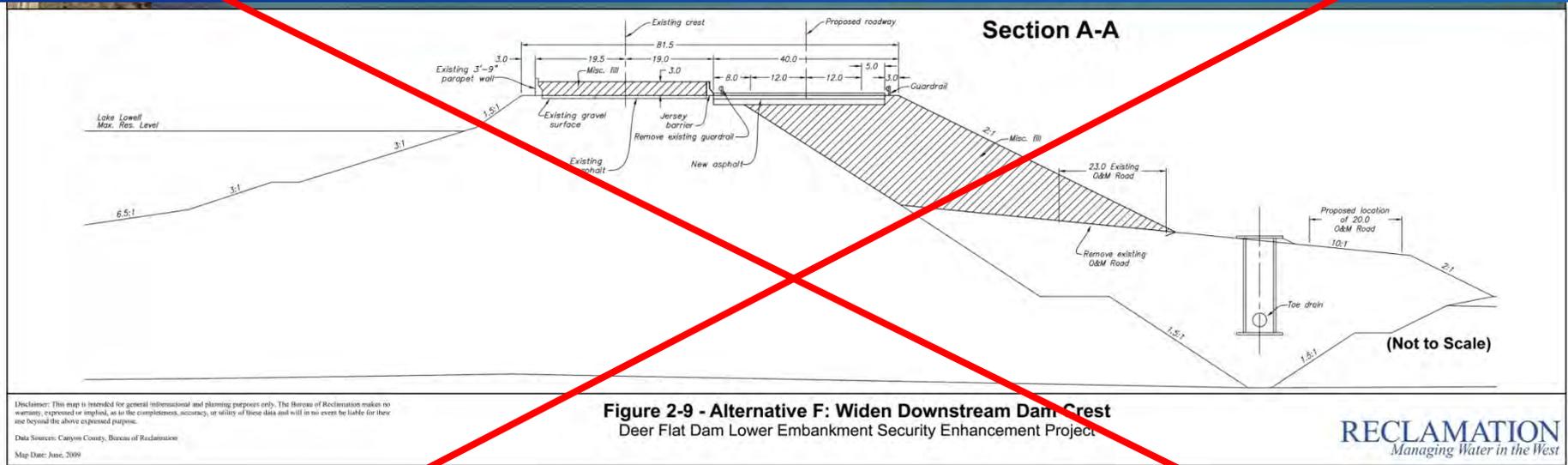
Original Alternative E – Now Deleted

Center Barrier and Widening Downstream Crest



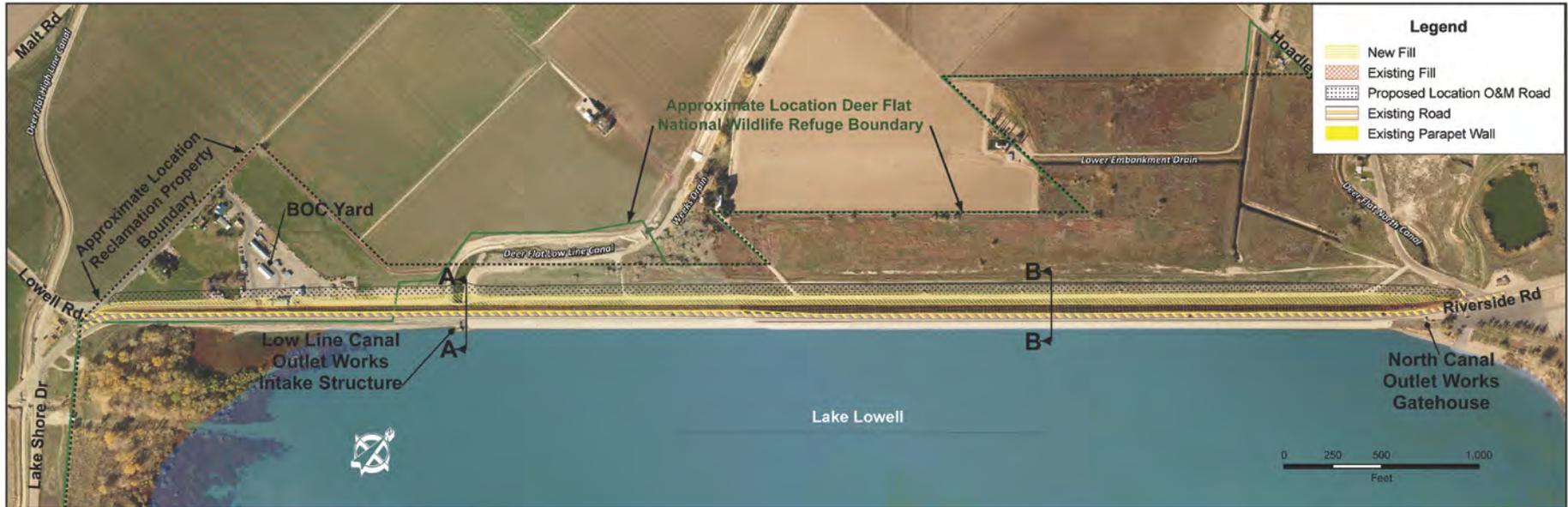
Original Alternative F – Modified

Downstream Widening

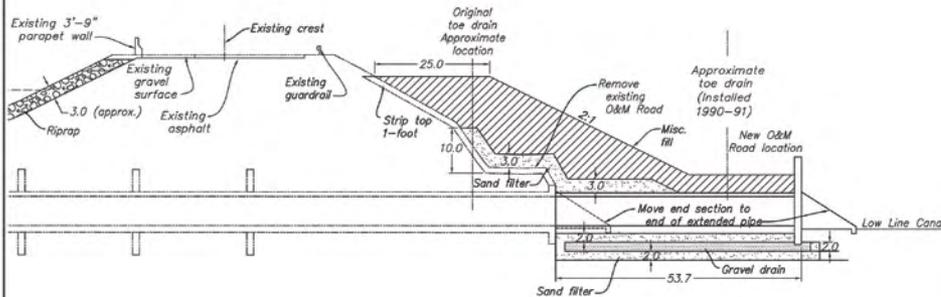


Alternative E – Structural Modification

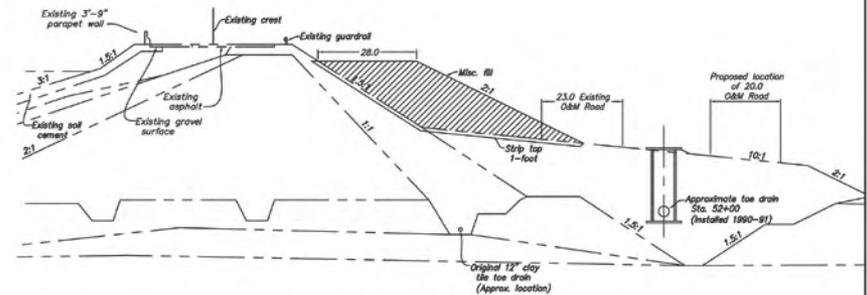
Widen downstream embankment (No Roadway Modification)



Section A-A



Section B-B



(Not to Scale)

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Data Sources: Canyon County, Bureau of Reclamation

Map Date: September, 2009

Alternative E: Widen Downstream Crest
Deer Flat Dam Lower Embankment Security Enhancement Project

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Comparative Analysis of Alternatives

| Comparison of Alternatives | | | |
|---|---|--|---|
| Alternative | Advantages | Disadvantages | Estimated Const. Cost |
| Alternative A - No Action | None | When considered with the potential loss of life and property, No Action would show a significant impact disadvantage | With no dam protection; if an incursion was successful, the loss of life and loss of property would result in a significant adverse economic impact |
| 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 construction wise | <ul style="list-style-type: none"> ▪ Transportation ▪ Socioeconomic | Around \$2+ million Awaiting additional infrastructure and cost information from CC Highway Dist. |
| 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 ▪ Will incorporate SOD fix | <ul style="list-style-type: none"> ▪ All materials commercially purchased ▪ Loss of 5 BPBOC buildings, including one house ▪ Requires one bridge crossing ▪ Impacts 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 include land acquisition</u> |

Comparative Analysis of Alternatives - Cont

| Comparison of Alternatives | | | |
|---|---|--|----------------|
| Alternative | Advantages | Disadvantages | Estimated Cost |
| Alternative E – Widen Downstream Dam Embankment | <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 ▪ Less expensive than most alternatives ▪ Conventional construction methods ▪ Minimal traffic disruptions ▪ Will incorporate SOD fix | <ul style="list-style-type: none"> ▪ All materials must be commercially purchased ▪ Three BPBOC buildings impacted ▪ Temporary Traffic disruption | \$8.4 million |

NEPA Process

Environmental Assessment (EA)

- Public Scoping/Issue Identification  Done
- Develop range of alternatives  Done
- Analyze impacts of alternatives  Done
- Draft EA distributed for public comment  December 2009
- Deadline for public comment  February 15, 2010
- Final EA and decision document (FONSI)  May 2010
- Implement Security Measures  Late 2011

Contacts

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