USDA Natural Resources Conservation Service-Utah
Wallace F. Bennett Federal Building
125 S. State Street – Room 4010
Salt Lake City, UT 84138-1100

Green River Diversion Rehabilitation

National Environmental Policy Act (NEPA) Public Scoping Project Description

The Natural Resources Conservation Service (NRCS) and Utah Department of Agriculture and Food (UDAF) are analyzing alternatives to repair damage to the Green River diversion structure from the late 2010 and early 2011 flood event. The diversion structure was constructed in the early 1900's and has been modified over the years to maintain the structure. During the 2010/2011 flood events, flows in the Green River caused severe damage to the diversion structure compromising its structural integrity. If the dam fails, water delivery to two irrigation canals, a historic irrigation water wheel delivery system, and one hydropower plant would be eliminated.

The United States Fish and Wildlife Service (USFWS) is proposing to install a fish barrier, through funding from the United States Bureau of Reclamation (USBOR), at the entrance to the west irrigation and hydropower plant canal to prevent Endangered Species Act (ESA) listed fish species from entering the canal and/or hydropower plant. As part of the dam repair, upstream and downstream fish passage may also be incorporated into the design. These fish protection and passage components are proposed for inclusion in the Green River diversion rehabilitation project to help reduce fish mortality of ESA listed fish species populations in the Green River.

The NRCS is analyzing alternatives to rehabilitate the structure and conceptual alternatives that have been identified during the scoping process include the following:

- No Action: The diversion would be left in its existing condition.
- Repair Existing Diversion: Repair the existing diversion to safely pass flood events without causing damage.
- Replace Existing Diversion: Demolish the existing diversion and install a new diversion in the same location.
- Replace Diversion Downstream: Demolish the existing diversion and install a new diversion downstream of the existing structure.
- Replace Diversion Upstream: Demolish the existing diversion and install a new diversion upstream of the existing structure.
- Diversion Decommissioning: Completely remove the diversion from the river and stabilize the diversion site.
- Fish Passage Upstream/Downstream: Construct a passage system on the dam to allow safe upstream and downstream passage of fish over the diversion.
- Boat Passage Upstream/Downstream: Construct a passage system on the dam to allow safe upstream and downstream passage of boats over the diversion.
- Electric Fish Barrier: Install an electric fish barrier to prevent fish from swimming down the raceway to the powerhouse and irrigation canal.
- Other Alternatives: Other alternatives identified by the public and project team during scoping will be analyzed during the NEPA process to rehabilitate the diversion.

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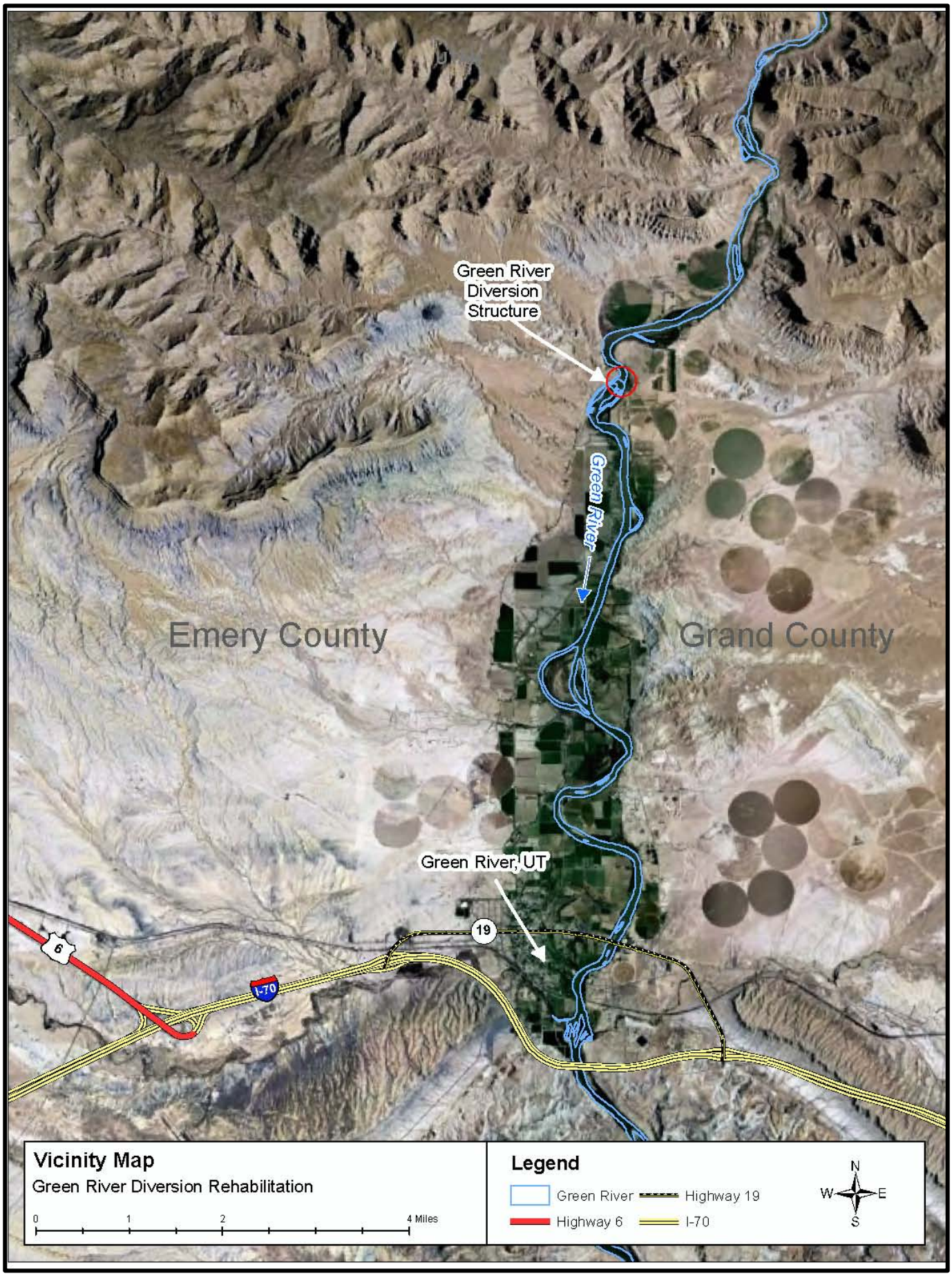
NEPA Analysis

This project is being partially funded by the NRCS Emergency Watershed Protection (EWP) program to restore the damage from the 2010/2011 flood events and stabilize the structure. A National Environmental Policy Act (NEPA) Programmatic Environmental Impact Statement (EIS) was prepared by NRCS for the EWP program; however, the repair of this diversion structure does not fit within the analysis parameters of the Programmatic EIS. NRCS, as the lead federal agency, is initiating additional NEPA analysis in the form of an Environmental Assessment to analyze impacts to the natural and human environment from this project. The Environmental Assessment will comply with the Council on Environmental Quality's regulations at 40 CFR Parts 1500-1508 which require an evaluation of potential environmental impacts associated with federal projects and actions. The USBOR is proposing to fund the installation of the fish barrier and is a cooperating agency in the NEPA analysis.

NRCS

Green River Diversion Rehabilitation

Figure 1



NRCS

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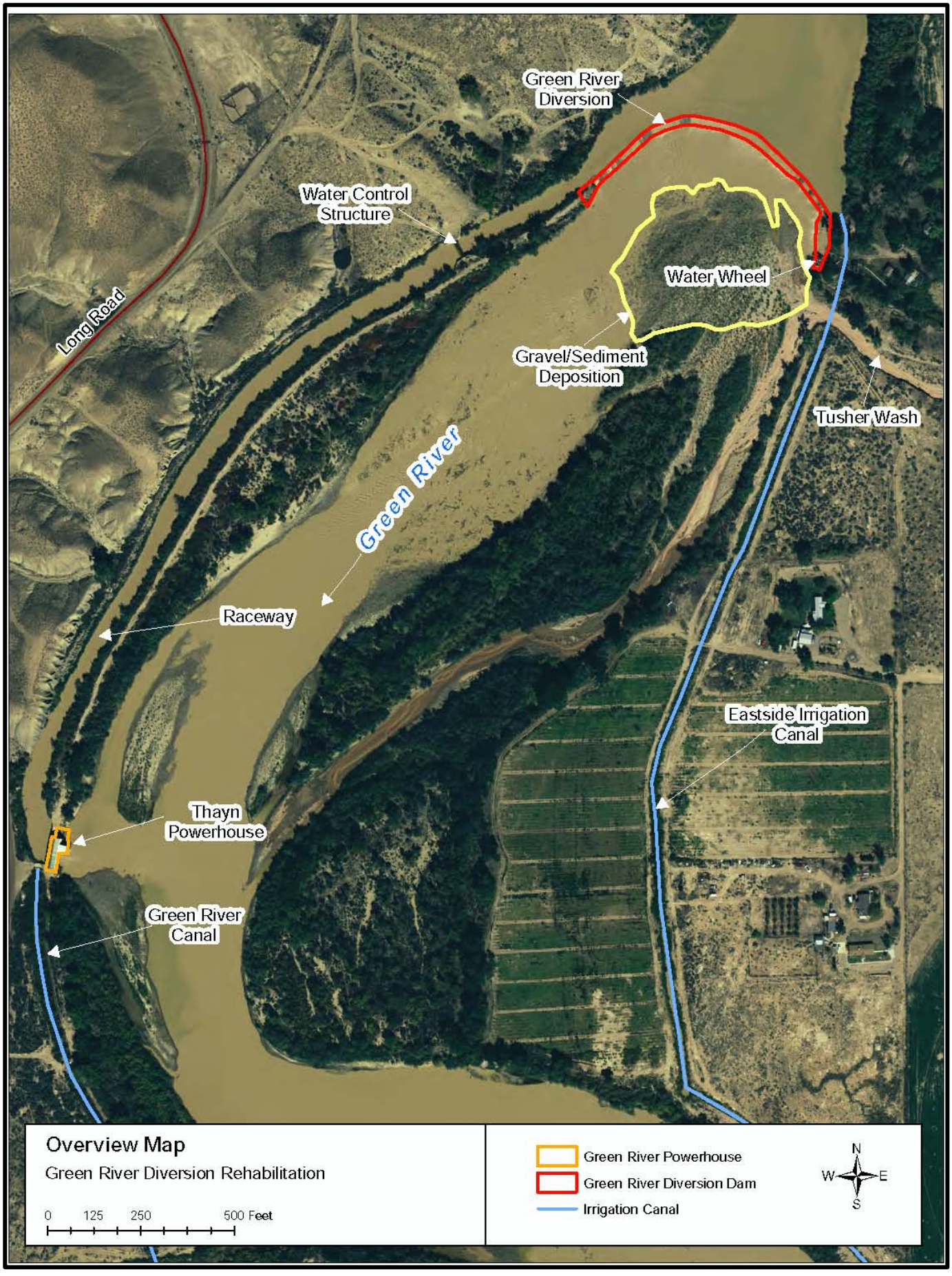
Figure 2



NRCS

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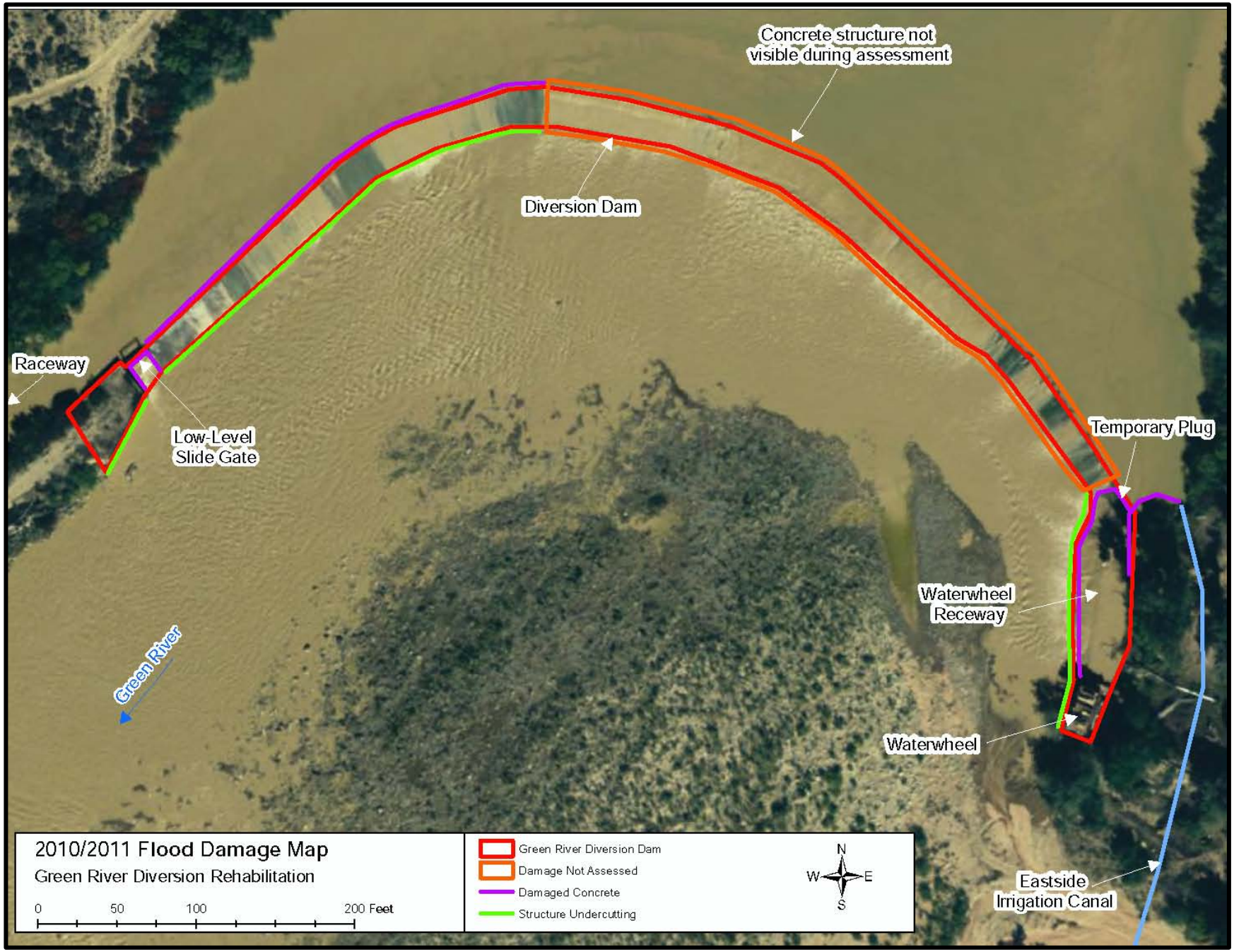
Figure 3



Green River Diversion Rehabilitation

Photos

Diversion Dam looking Northwest.

Diversion Dam looking Northeast.

Waterwheel Raceway looking North.

Waterwheel Raceway looking South.

Green River Diversion Rehabilitation

Photos

Damaged Concrete on West Side of Diversion.

Undercutting on West Side of Diversion.

Damaged Concrete on Low-Level Slide Gate.

Damaged Concrete on West Side of Diversion.

Green River Diversion Rehabilitation

Photos

Damaged Concrete on West Side of Diversion.

Raceway looking Downstream on West Side of Diversion.