



CACHE WATER Restoration Project

A Community Partnership

FACT SHEET

Project Background and Overview

The purpose of the Cache Water Restoration Project (CWRP) is to restore irrigation water to the users of the Logan and Northern Canal (LNC). A landslide in July 2009 breached the canal above Canyon Road in Logan, causing a disruption of service to users of the LNC and Logan Hyde Park Smithfield Canals (LHPS). Shortly after the breach, Cache County, as the project sponsor, obtained federal funding through the Natural Resource Conservation Service (NRCS) and its Emergency Watershed Protection (EWP) program to restore water to shareholders. An Environmental Impact Statement (EIS) for canal restoration was completed in late 2011 and a Record of Decision defining the selected alternative was signed in October 2011.

Restoration measures proposed in the EIS which are being designed and constructed include enclosing existing sections of the LNC and LHPS in box culvert and pipe. Construction began in summer 2012. Restoration of irrigation water service to shareholders is expected by spring 2013, with total project completion by spring 2014.

The CWRP seeks to manage the design and construction of measures to restore water to shareholders and provide safe and reliable water delivery solutions. The project purpose is based on opportunities for water conservation, improving public safety and reducing canal maintenance. The project team is working to find a balance between maximizing benefits to water shareholders and the general public while minimizing impacts as much as possible to those who are directly affected.

Canal Functionality and Funding

- Prior to the 2009 landslide, average combined peak water flow for the LHPS and LNC was about 50,000 gallons/minute. Due to seepage and evaporation losses, canal companies were able to distribute only about 60% of that water.
- CWRP features will reduce seepage losses in the areas of greatest loss, allowing canal companies to deliver about 80% of the water, which amounts to approximately 13 million gallons of water per day additional to farmers and residential users.
- Canal shareholders have been required to take irrigation reductions for three consecutive years, resulting in crop and revenue losses for affected farmers. This affects the livelihoods of those in the agricultural industry and the overall economic health of the Cache Valley.
- Many residential shareholders have also been restricted and some have not received water from the LNC over the past three years.
- Project funding comes from a \$19.35 million federal EWP grant and a \$6.45 million low-interest state loan, which will be repaid with no additional tax burden to citizens.
- EWP funding through the NRCS bears up to 75% of construction costs and the remaining 25% must be provided by local sponsors. The EWP program is designed to “protect life and property from any future event of a similar magnitude.” Program funds come with specific administration requirements. For example, they may be used for “restoration” purposes only and not for property “betterments” (better than previous or existing conditions). These stipulations govern what can and cannot be done for affected property owners. Logan City is paying for any approved betterments associated with the CWRP.
- As irrigation shareholders, the cities of Logan, North Logan, Hyde Park and Smithfield are funding 11% of project matching funds plus a 40% cost share for storm water benefits resulting from the

project. City shares are primarily exchanged for culinary drinking water for citizens, who would pay more if their water had to be pumped from a well instead of flowing from canyon springs.

- Cities are funding 40% of the project matching funds for additional storm water conveyance capacity in the canals. Without this benefit, cities would be required to fund and build alternate storm water management systems with taxpayer funds.
- Pressurized irrigation service provided to water shareholders by the CWRP will be more efficient than the gravity flow provided by the open canal.
- Approximately 800 shareholders in 4 cities voted twice in favor of CWRP implementation.

Maintenance: CWRP restoration measures will significantly reduce canal maintenance activities and costs. Following is a summary of current maintenance costs:

- \$50,000 – \$300,000 annually for all maintenance activities
- \$75,000 – \$115,000 annually for demossing
- \$20,000 – \$30,000 annually for desedimentation
- \$5,000 annually for tree removal/trimming
- \$230,000 to place canal liner in 2011
- Costs currently borne by cities include maintenance of debris gates and canal liner.
- In the past near Lundstrom Park, seepage caused by unlined canal channels has contributed to flooded basements and associated damage repairs.

Safety: Public safety will be improved and canal liabilities will be reduced with CWRP implementation:

- The 2009 canal breach resulted in three fatalities. A subsequent liability suit required the LNC to pay out the full extent of its insurance policy.
- The cost of the canal company's insurance policy has increased by five times since the 2009 breach.
- Canal companies do not have recreational insurance and are liable if someone drowns while recreating in the canal.
- In the past, a fatality in a canal lateral in Smithfield resulted in piping that section of canal.

Project Features

- **Logan Canyon (Canal Diversion on the Logan River to the Mouth of Logan Canyon):** A box culvert (6' x 5' and 5' x 5' concrete) will be constructed in the bed of the existing canal channel and then backfilled with soil.
- **East Bench (Mouth of Logan Canyon to 1500 North):** A gravity-flow transmission pipeline (66" reinforced concrete), distribution line and storm water collection line will be constructed in the bed of the existing channel and backfilled with soil. A storm water drainage system including an open channel and gravel maintenance access will run parallel to the pipeline in this section.
- **1500 North Corridor (Logan Hyde Park Smithfield Canal to the Logan and Northern Canal):** A pressurized pipeline (42" PVC) will be buried in a new alignment underneath 1500 North.
- **600 – 800 East Corridor (1500 North to 400 North):** A pressurized pipeline (4'-16" high-density polyethylene, HDPE) will be buried in the west bank of the existing Logan and Northern Canal channel between 1500 North and 550 North; and the south bank of the canal channel above Canyon Road between 600 East and 700 East. The pressurized line and 36" concrete storm drain pipe will be buried in the existing canal channel between 400 North and 550 North. The existing canal channel will remain open north of 550 North to convey storm water and a gravel maintenance access will run parallel to the pipeline.
- **Canyon Road (First Dam to the Laub Diversion):** A gravity-flow pipeline (18" HDPE) will be installed in the existing canal channel between First Dam and the Herm's Inn area and in the south bank of the channel between there and the Laub Diversion. The existing open canal channel will be maintained to convey spring and storm water and a gravel maintenance access

will run parallel to the pipeline. Logan City is considering options to improve this section of canal for collection of spring water and drainage.

Miscellaneous

- A gravel maintenance access will be provided throughout project limits to allow the city, canal company and others in agreements to maintain new pipeline and keep remaining open canal channel clear of debris. It will be vegetated with native grasses except in areas where adjacent property owners wish to place turf grass, sod or other flat improvements that will not inhibit the access, operation and maintenance of the canal.
- An open drainage channel will be maintained parallel to the new pipeline along the East Bench between the mouth of Logan Canyon and 1500 North. The channel will travel through the golf course, residential community and Lundstrom Park. City water shares will be used to provide water flow in the channel as an aesthetic amenity. Any associated betterments will be funded by the city.
- Although not part of the CWRP, Logan City may consider future development of a public trail system along the canal corridor on the East Bench and Canyon Road sections. Any associated landscaping betterments would be funded by the city as part of a separate project.

*A complete list of CWRP *Frequently Asked Questions* and responses is available on the project website: www.cachewater.com.

Public Involvement Summary

Environmental Phase: An EIS was conducted by the NRCS from summer 2011 to fall 2012. An open public process included the following:

- Public Meetings (8/11/10, 3/31/11)
- Agency Meetings
- City/County Council Updates
- Press Releases to News Media
- Project Website

Design/Construction Phases: The following public involvement activities have been conducted during design and construction of the CWRP:

- Spring 2012: A project Situational Assessment included interviews with over 37 individuals/organizations to assist in the identification of potential challenges and the establishment of goals as the project progressed into design and construction.
- Late May 2012: 250+ fliers with a project update were delivered in person to residents along canals in project limits; the same info flier was mailed to approximately 1,300 irrigation water shareholders
- Individual and neighborhood meetings have been held as requested by individual stakeholders (including Logan Golf & Country Club).
- Updates to City/Neighborhood/County Councils
- Project website, hotline, email address
- Press releases to news media
- Mid-August 2012 and October 2012: Door-to-door resident/property owner visits and mailers were completed prior to construction phases.
- Regular email construction updates are being distributed to a project database.