BDD Funding Update

Through the end of 2008, the Buckman Direct Diversion Project has received \$13.45 million in grants and low-interest loans from federal and state agencies. Estimated project cost is \$216.34 million.

BDD Costs (in Millions of Dollars)

Board Engineer/Procurement/Contract Oversight Acquisition of Permits & Easements	\$ 4.03 0.76
PNM & Utilities	3.15
Legal and Other Administration	1.53
Design-Build Construction & Engineering	181.52
Design-Build Taxes	12.28
Other Project Costs	6.34
Contingency Reserves	6.73
TOTAL	\$ 216.34
- Las Campanas' share of construction costs	- 11.24*
- Grants and Low Interest Loans Received	- 13.45**
Total remaining cost	\$ 191.65**

The City and County will continue to seek state and federal funding assistance to help defray BDD Project construction costs.

* The City of Santa Fe and Santa Fe County will split project construction costs, minus the share paid by Las Campanas. The City is expected to pay for its share through an increase in water rates, a quarter-cent gross receipts tax, a low-interest loan from the State drinking water revolving fund and possible federal stimulus funding. The County is expected to pay its share of construction costs through an environmental gross receipts tax, bond proceeds and other funding.

** Las Campanas receives no (\$0) benefit from federal and state grants and is paying for its share of construction of the BDD raw water facilities in cash.

For More Information, contact: www.bddproject.org

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BDD Project Manage

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BDD Board of Directors

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Buckman Direct Diversion Project
2008 Progress Report
Published March 2009



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The Buckman Direct Diversion Project is now under construction!

We are finally on the threshold of being able to bring water from the Rio Grande to serve the City of Santa Fe and Santa Fe County in a way that provides a safe, reliable and sustainable source of drinking water.

Remarkable progress was made in the past year. In this report, we'll briefly detail key accomplishments and give you an overview of what we're doing to ensure the BDD Project provides a safe, dependable water supply.

Thank you for your support and your interest. For more information about this project, please visit our website at **www.bddproject.org**. Also, if you have questions or comments, please send them to info@bddproject.org, or call **1-800-687-3417**.

Virginia Vigil BDD Board Chair Santa Fe County Commissioner, District 2 **Rebecca Wurzburger BDD Board Vice-Chair** Santa Fe City Councilor, District 2 Santa Fe Mayor *pro tem*

City of Santa Fe and Santa Fe County water customers have made our region a leader in water conservation and drought management. Total community water use is down 40% over the last 10 years to 100 gallons per person per day, one of the lowest water usage rates in the Southwest. Continued effective water conservation is required by federal and state permits for the Buckman Direct Diversion (BDD) Project.

Why the BDD Project Is Important

The BDD Project is an important part of our long-range water supply plan. The Project:

- Creates the infrastructure we need to access an additional reliable source of water from the San Juan-Chama via the Rio Grande (water available to the City and County under a permanent contract)
- Increases the diversity and flexibility of our water supply sources
- Helps protect us from running out of water during a drought or a reduced water supply caused by climate change
- Provides a sustainable water supply for the BDD's projected 2010 customer population under existing climate conditions (conservation has stretched this date forward by about a decade)
- Reduces groundwater pumping and protects the aquifer from damage due to over pumping
- Allows groundwater to be preserved as a reserve for use in times of drought

The BDD Project is owned by the City of Santa Fe and Santa Fe County. Las Campanas is a limited partner. By federal permit, the BDD can divert as much as 8,730 acre-feet of water per year. Annually, the BDD Project will provide as much as 1,700 acre-feet of drinking water to Santa Fe County, 5,230 acre-feet of drinking water to the City of Santa Fe, and 1,800 acre-feet of untreated river water to Las Campanas.

BDD Project Water Capacity Per Year



anuary 2008	February 2008	March 2008	April 2008	July 2008	August 2008	September 2008	October 2008	November 2008
DD receives ermit from MDOT allowing to construct ipelines in ght-of-ways long roadways ontrolled by ne agency	BDD receives Record of Decision (ROD) from U.S. Bureau of Land Management and U.S. Forest Service stating BDD is best available alternative to provide a sus- tainable drinking water supply for Santa Fe region	BDD Board signs contract with Design-Build Contractor: CH2M Hill/Western Summit Constructors Joint Venture ROD is appealed	Dr. Kerry Howe, delivers independ- ent study assessing effectiveness of proposed BDD Water Treatment process in removing radionuclides and other contaminants of concern		BDD hosts Water Quality Town Hall information: Idproject.org	BDD breaks ground NMED releases results of study that BDD construction and operation will not disturb contaminants in abandoned river side channel near BDD diversion site	BDD Design is completed BDD supports more stringent surface water quality standards proposed by NM Environment Department Triennial Review of water quality standards	BDD receives important sediment discharge permit from U.S. Environmental Protection Agency. Permit is certified by NM Environment Department

Obtaining Important Permits

Last year the Buckman Direct Diversion (BDD) Project received one of the most important federal approvals necessary to build the project. The **Record of Decision** (ROD) identified the BDD Project as the best alternative to provide a sustainable



drinking water supply for the region. The ROD was appealed by several concerned groups and individuals, but was upheld in Julv 2008.

The BDD Project also obtained a number of other important permits necessary to proceed with construction last year, including:

- U.S. EPA Sediment Discharge Permit
- NM Department of Transportation Permit to Install Utility Facilities within the Public Right-of-Way
- U.S. Bureau of Land Management (BLM) Rights-of-Way Permits
- U.S. Forest Service Right-of-Way Permit

For more information on these and other permits, visit our website, www.bddproject.org and click on the Construction button

Breaking Ground & Establishing a Plan

The Design-Build (DB) contract for the BDD Project was signed in March 2008 by the BDD Board and CH2M HILL/Western Summit Constructors Joint Venture. The DB contractor is responsible for completing design and construction of all BDD facilities, including:

- Diversion structure on the Rio Grande
- Raw water lift station
- Sand removal facility
- 11 miles of raw water pipelines
- Two booster stations to pump/lift the water about 1,100 vertical feet
- City/County Water Treatment Plant and related facilities
- Two treated water pump stations
- 15 miles of finished water pipelines connected to City and County water distribution systems

The goal of the DB contractor is to safely build the highest quality project possible in the allotted amount of time with the least amount of inconvenience to the public. Ground was broken on the project in September 2008. As of the end of the year construction was on schedule.

For more details, visit www.bddproject.org and click on the construction button.

Assuring Water Quality

The BDD Board and staff are committed to assuring that the BDD complies with all applicable standards for safe drinking water. Water Quality has been, and will continue to be, the central focus of BDD Project design and operations.

The BDD Board commissioned several studies to determine whether the Rio Grande water to be diverted and treated by the BDD Project is contaminated with "legacy" radionuclides from Los Alamos National Laboratory (LANL) and whether the project can treat the water to remove those types of contaminants. LANL legacy contaminants are from the Lab's activities during World War II and the early Cold War years, before waste discharges and disposal were regulated.

Independent Study Finds Three-Part BDD Water Treatment Strategy Is Effective

Dr. Kerry J. Howe, PhD, P.E. performed an independent assessment of the effectiveness of the proposed City/County Water Treatment Plant, as designed, in removing radiological and other specific contaminants of concern. He completed his final report in April 2008, concluding the Water Treatment Plant will be able to remove contaminants and produce water that meets all drinking water standards due to a three-part strategy consisting of:

- 1) Concentrations in the Rio Grande that are nearly always below regulated levels:
- 2) An operational strategy that can prevent water possibly containing higher levels of contaminants from entering the Water Treatment Plant; and
- 3) A robust treatment process that removes or could be modified to remove contaminants of interest.

Howe studied all available data from hundreds of water quality samples from the Rio Grande in and around the area of the planned BDD Project diversion facility and in the LANL watershed. He evaluated certain contaminants measured in the water, including radionuclides. Pharmaceuticals and Personal Care Products (PPCPs) Polychlorinated biphenyls (PCBs) and others.

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legacy contaminants. NMED determined that planned construction of the BDD will not disturb any sediments containing LANL legacy contaminants. The BDD is continuing to work with the NMED and LANL on issues related to contamination of the Rio Grande.

BDD Supports More Stringent Standards for Surface Water Quality

In 2008 the BDD Board sent a letter to the New Mexico Environment Department (NMED) supporting more stringent water quality standards for surface water as part of Triennial Water Quality Review. Revised standards are expected to be formalized in 2009.

More information on these studies and BDD Board activities and other issues related to water quality can be found at the project website: www.bddproject.org, under Water Ouality.

BDD City/County Water Treatment Process



The data showed concentrations of most radionuclides and PCBs in untreated Rio Grande water have always been below the applicable standards for drinking water or at targeted maximum concentrations. For some other contaminants, a small number of "spikes" have occurred during period of high runoff (such as storms). The study indicates future potential spikes can be addressed by shutting off diversion from the Rio Grande when there is likely to be high runoff, a feature already built into the design of the BDD Project diversion.

NMED Study Finds BDD Will Not Disturb LANL-Legacy Contaminants in Sediments

In early 2008, representatives of the City of Santa Fe, the BDD Board, Santa Fe National Forest Service, the New Mexico Environment Department (NMED) and Los Alamos National Laboratory examined the sediments near the BDD diversion site. The study was conducted to determine whether construction and operation of the BDD would intercept an abandoned Rio Grande channel that contains LANL

Status of 6 Action Steps BDD Board Asked LANL to Take to Assure BDD Water Quality

In November 2007, the BDD Board sent a letter to Los Alamos National Laboratory (LANL) asking it to take six specific action steps to address BDD Water Quality issues. As of December 2008, the status of these issues was as follows:



1. Stop migration of LANL contaminants to the Rio Grande and to aroundwater.

STATUS: The U.S. Environmental Protection Agency and the New Mexico IN PROGRESS Environment Department have ordered DOE to implement numerous improvements to reduce contaminated storm water runoff to the Rio Grande, before the BDD begins operations.



2. Properly monitor the transport of legacy contaminants (contaminants from the 1940s-1960s) in both the surface water and groundwater flow systems.

STATUS: LANL is working with NMED and BDD representatives to sample the Rio Grande above LANL and at the BDD river diversion site. LANL groundwater monitoring is being performed subject to an NM Environment Department Consent Order. The BDD Board thinks other monitoring improvements are necessary, but these aspects remain in negotiation.



3. Measure the radioactive and toxic contamination of buried sediments containing higher concentrations of post World War II LANL legacy contaminants now buried in the slough (side channel) upstream of the BDD diversion site.

STATUS: Completed – Study paid for by BDD Board and NM Environment Department.



4. Provide an early warning system so the BDD can temporarily stop diversions of any water from the Rio Grande when the Rio Grande is expected to contain elevated levels of contaminants of LANL origin.

UNDER **STATUS:** Design details are in negotiation. NEGOTIATION



5. Monitor the mass of any LANL-origin contaminants diverted with BDD raw water supplies and account for that mass in water treatment plant residuals and treated drinking water (to assure contaminants remain at low levels in the diverted water prior to treatment and show the treated drinking water and sediments removed during treatment meet or exceed all state and federal standards).

STATUS: LANL has said no to this request. The matter remains for negotiation.



6. Provide funding for the BDD Board to retain independent peer review by gualified persons with regard to matters of LANL-origin contamination of the public drinking water resources of Santa Fe County and the City of Santa Fe.

STATUS: Concept is agreed. LANL agreement to fund depends on peer reviewer(s) selected by BDD Board.