

**STATE OF NEW MEXICO
BEFORE THE WATER QUALITY CONTROL COMMISSION**

IN THE MATTER OF THE TRIENNIAL REVIEW
OF STANDARDS FOR INTERSTATE AND
INTRASTATE SURFACE WATERS, 20.6.4 NMAC

WQCC No. 08-13

**THE BUCKMAN DIRECT DIVERSION BOARD'S
NOTICE OF INTENT TO PRESENT TECHNICAL TESTIMONY**

COMES NOW the Buckman Direct Diversion Board (BDDDB), by and through its counsel of record, Long, Pound and Komer P.A., and in accordance with the Scheduling Order in this matter, files this Notice of Intent to Present Technical Testimony in the 2009 Triennial Review of the New Mexico Surface Water Quality Standards scheduled to begin December 8, 2009 in Santa Fe, NM.

I. DIRECT TESTIMONY

The BDDDB intends to call the following person:

Rick Carpenter. Mr. Carpenter is a water resource professional and the Buckman Direct Diversion Project (BDD Project) Manager. He has been involved with the planning, design, procurement, permitting and construction of the BDD Project for the past seven (7) years as an employee (Senior Water Resources Coordinator) of the Sangre de Cristo Water Division of the City of Santa Fe. He has over 19 years of professional experience in the field of water resources, water utility management, and water resources planning, including water quantity and water quality issues. A copy of Mr. Carpenter's resume is attached hereto as "BDDDB Exhibit A". Mr. Carpenter will provide technical testimony in the Triennial Review, a copy of Mr. Carpenter's direct technical testimony is attached hereto as "BDDDB Exhibit B." We expect that Mr.

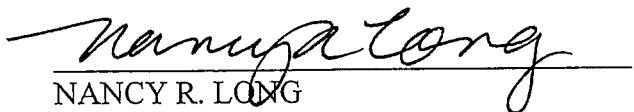
Carpenter's direct technical testimony will take approximately 30 minutes. The exhibits BDDDB intends to submit in support of Mr. Carpenter's testimony are attached to his written direct testimony filed herewith.

II. REBUTTAL TESTIMONY

Pursuant to the Scheduling Order, BDDDB may present the written rebuttal technical testimony of Mr. Carpenter. The written rebuttal testimony may address the proposals of other Triennial Review petitioners or participants, identify any modifications the BDDDB proposes to other petitions, and provide all rebuttal exhibits. In addition, the rebuttal technical testimony of Mr. Carpenter may respond to direct written testimony filed by other Triennial Review participants, if any such testimony is filed as direct, rather than rebuttal testimony. BDDDB reserves the right to call any person to testify and to offer any exhibit in response to any testimony, exhibit or public comment presented in the public hearing.

Respectfully submitted,

LONG, POUND & KOMER, P.A.
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CERTIFICATE OF SERVICE

I hereby certify that on the 28th day of August, 2009, I mailed (and emailed where indicated) the foregoing **Buckman Direct Diversion Board's Notice of Intent to Present Technical Testimony** via first class mail, postage prepaid addressed as follows:

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RESUME of Rick R. Carpenter

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BDD Project Manager
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SUMMARY OF QUALIFICATIONS

Extensive knowledge of current approaches and techniques related to water rights management, water resources management, water quality, environmental science, municipal water utilities, and project management (capital infrastructure and planning projects) .

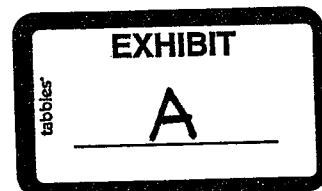
Academics: Completed a BA in Political Science (emphasis in water policy), and MS in Physical Geography (emphasis in water resources). Completed Professional Certificate Program in Urban Planning and Development.

Professional Experience: Approximately 19 years of related professional experience in both the public and private sectors. This has allowed for the development of a complex and comprehensive skill-set to perform, manage and/or coordinate a diverse array of tasks including: reconnaissance/feasibility-level data collection and analysis, planning, permitting, financing and grants, modeling, surveying and mapping, budgeting and fiscal services, insurance, bonding, environmental review, water transfer efforts, public communications, policy analysis and recommendation, interagency liaison, water rates, report preparation, procurement and contracting, critical path scheduling, design and construction oversight, potable water treatment processes, and facility start-up and acceptance.

- **Plan/Policy/Legal Experience:** Preparation of two large-scale water transfer agreements, expert testimony at two legal hearings, two major municipal conservation plans, one comprehensive municipal waste water reuse plan, two groundwater management plans, and two major municipal long-range water supply and decision support plans/models.
- **Watershed and Floodplain/River System Restoration Experience:** Ecosystem and floodplain restoration projects on the Jemez River and two sections of the Rio Grande (New Mexico and Texas), and wetlands restoration of the "Blue Hole" in Santa Rosa, NM. Assisted with watershed thinning and management efforts for the Upper Santa Fe River Watershed. Planned and permitted projects along the San Diego and San Dieguito Rivers in CA.
- **Capital Facilities Project Management:** City of Santa Fe's \$11 million Buckman Well Nos. 10 – 13 Project, and \$645,000 Buckman Wells Purge Project. While with the Corps of Engineers, served as Project Manager of a \$40 million levee and drain reconstruction project and a \$140 million flood control channel and detention dam project in the City of Alamogordo, and currently serving as the Project Manager for the Santa Fe region's Buckman Direct Diversion Project.

SPECIFIC WORK EXPERIENCE:

08/02/05 to Current. Hrs per week: 40, Water Resources Projects Coordinator, City of Santa Fe, NM. Primary responsibilities (capital infrastructure) include the lead management and/or the coordination of planning, permitting, funding and grants, fiscal and budget, contract administration and procurement, insurance, design, and construction of assigned water resources projects. Projects include, but are not necessarily limited to, the Buckman Direct Diversion



(Project Manager). Recent efforts to implement the BDD have included functioning as the Project Manager/Representative to the newly created BDD Board. Planning and permitting work includes management of required NEPA documents and related state and federal permits. Funding work includes grant proposal preparation and management of state and federal grant/loan cooperative agreements. Procurement and contract administration includes multiple RFP preparation, budget and cost analysis, scope and schedule development, development of performance measures and risk allocation, assignment of roles and responsibilities, and contract development and negotiations. Design and construction includes managing the development of design specifications and cost engineering; oversight of construction management; management of budget, and scope; and processing invoices and change orders. Also provide staff support and make policy recommendations to upper management and elected officials. Serve as a primary point of contact for project, resource management, and related policy information, including the preparation of reports and studies, making public presentations, and giving public testimony at formal local, regional, and state meetings/hearings. Responsible for implementation/application of decisions, guidelines, policies, regulations, rules, and laws in support City Water Division's and Buckman Direct Diversion Board's mission, goals, and objectives.

03/21/2005 to 08/01/2005. Hrs per week: 40, Water Resources Project Manager, United States Army Corps of Engineers, Albuquerque District, NM. Supervisor Debora Foley, (505) 342-3428. Applied a broad water resources background and experience in various technical functions. Provided expert project management for water resources projects, requiring a wealth of water resources, scientific, policy, and technical project management knowledge to achieve resource management, scheduling, funding and budgets, contracting, design, construction, and program goals. Interpreted and applied federal and USACoE policies to assigned duties, and provided guidance and direction to subordinate team members.

07/28/2002 to 03/15/05. Hrs per week: 40, Water Resources Projects Coordinator, City of Santa Fe, New Mexico, Water Division. Santa Fe, NM 87504-0909, Supervisor Galen Buller, esq., (505) 955-4201.

Primary responsibilities similar to those described above under section describing work experience at the "City of Santa Fe 08/02/05 to Current".

07/15/2000 to 07/20/2002. Hrs per week: 40, Principal Water Resources Specialist, City of San Diego, Water Department. San Diego, CA 92101, Supervisor: Marci Stierer, (619) 533-7555. Primary responsibilities included functioning as a manager of planning, scoping, and permitting of assigned water resources projects. Planning and permitting work included functioning as a manager of feasibility and master planning reports, NEPA documents, and related state and federal permits. Funding work included grant proposal preparation. Also provided staff support and made policy recommendations to upper management, Water Authority Board members, and elected City officials. Served as a primary point of contact and agency liaison for project, resource management, and related policy information, including the preparation of reports and studies, making public presentations, and giving public testimony. Reviewed and analyzed cost reports, wholesale water rate studies, staff reports, and engineering and construction progress reports. Worked to evaluate and negotiate the State of California's first large-scale water market/transfer agreement (northern California to southern California). Primary policy analyst for the Water Policy and Planning Division of the Water Department. Was the primary analyst and agency representative of the City for the evaluation and implementation of the \$500 million Emergency Water Storage Project. Was the Project Manager for the City's comprehensive Long-Range Water Supply Plan, and coordinated on a variety of other major plan preparation efforts.

11/20/1999 to 06/30/2000. Hrs per week: 40, Project Manager, Investigative Science and Engineering, Inc. San Diego, CA 92108, Supervisor: Rick Tavares.
Environmental and planning assessment projects including the Olivenhain Dam and Water Treatment Plant Project.

06/20/1996 to 11/15/1999. Hrs per week: 40, Project Manager, EnviroMINE, Inc. San Diego, CA 92108, Supervisor: Warren Coalson, (619) 284-8515.

Project Manager for a variety of water resource projects, including a terminal water storage tank and pipelines, numerous pipeline and valve projects, within and near-river sand and gravel mining projects, and a 36-hole golf course project including a groundwater extraction and management plan (located in sensitive San Diego River riparian habitat). Project management responsibilities included management and coordination of multi-disciplinary teams to gather, analyze, and synthesize data for inclusion in various report types (environmental impact reports and mine reclamation reports), permit acquisition and compliance, budget/cost control, preparation of scopes of work, and proposal preparation. Served as a primary point of contact and agency liaison for project, resource management, and related policy information, including the preparation of reports and studies, making public presentations, and giving public testimony.

05/15/1992 to 06/01/1996. Hrs per week: 40, Environmental Planning Analyst. Ogden Environmental and Energy. San Diego, CA 92121, Supervisor: Karol Stefanec-Means, Address: No longer listed-closed office.

Gathered and analyzed data and prepared related studies and reports. Coordination of multi-disciplinary teams to prepare various report types (environmental impact reports, environmental assessments, Phase 1's, etc.), permit acquisition and compliance, budget/cost control, preparation of scopes of work. Functioned as Principal Planning Analyst for EIS preparation for the \$500 million Emergency Water Storage Project (Ogden contract was for \$2 million), and Rancho Santa Fe Master Plan and Environmental Impact Report (i.e., 1,200 housing units, commercial complex, and golf course in San Dieguito River Corridor).

EDUCATION:

Bachelor's Degree (BA), Political Science, GPA 3.28, San Diego State University

Master of Science (MS), Physical Geography (water resources emphasis), University of New Mexico.

TRAINING/LICENSES/CERTIFICATES:

05/05/1996, Professional Certificate, Urban Planning and Development, University of California, San Diego. (21 quarter units)

11/15/1996, Registered Environmental Assessor, 16-hour, State of California, California Environmental Protection Agency, Office of Environmental Health Hazard Assessment

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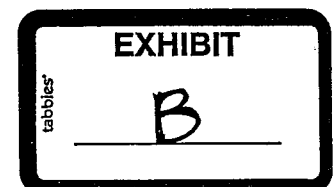
**DIRECT TECHNICAL TESTIMONY OF RICK R. CARPENTER
August 28, 2009**

**Submitted on behalf of the Buckman Direct Diversion Board in the 2009 Triennial Review
of Water Quality Standards**

I. Introduction

I am the Buckman Direct Diversion Project (BDD Project) Manager and I have aided in the analysis and development of the Buckman Direct Diversion Board's (BDDB) position, recommendations and petition in the 2009 Triennial Review of Water Quality Standards. The following materials constitute my direct technical testimony on behalf of the BDDB. In accordance with the Scheduling Order in this matter, I may submit rebuttal testimony.

The BDDB requests that the New Mexico Water Quality Control Commission ("NMWQCC") promulgate the New Mexico Environment Department's (NMED) proposed New Mexico water quality standards, as amended by NMED, to implement health-based water quality criteria for the public water supply as to five Los Alamos National Lab ("LANL") origin radionuclides in the Rio Grande upstream of Cochiti Reservoir. (*NMED Proposed Amendments 20.6.4.114*). The BDDB requests these changes so that our customers are properly informed regarding the source water quality in this segment of the Rio Grande.



A health-based standard is needed to serve as a benchmark against which these radionuclides can be publicly evaluated. The absence of specific numeric health-based criteria for these man-made radionuclides makes interpretation difficult or impossible for most consumers, particularly because the lack of a standard can provide an opportunity for misinterpretation.

The BDD Project requests that the State of New Mexico recognize public water supply as a New Mexico designated use of surface waters and to protect surface water quality, where that designated use applies, with appropriate surface water quality standards and criteria.

II. Overview

The BDD Project will treat and deliver renewable water from the San Juan-Chama Project (Bureau of Reclamation Project) and native Rio Grande water diverted from the Rio Grande to replace groundwater pumping that cannot be sustained. The BDD Project drinking water treatment capacity is 15 million gallons per day of drinking water delivered to the City of Santa Fe and Santa Fe County public water systems. The BDD Project initially will produce about 6,200 acre-feet of drinking water per year, which is about 60% of the Santa Fe community's annual drinking water demand, beginning in April 2011. More than 90% of the water diverted and treated initially will be from the City of Santa Fe's and Santa Fe County's annual contract allocation of San Juan-Chama Project water. A map of the BDD Project is attached as "BDDDB Exhibit B-1". A map of the BDD Project and the San Juan-Chama Project is attached as "BDDDB Exhibit B-2".

The BDD Project is co-owned by the City of Santa Fe and Santa Fe County, and through a Joint Powers Agreement (JPA) these entities have delegated the authority and responsibility to govern and oversee the BDD Project to the Buckman Direct Diversion Board (BDD Board). The

BDD Board consists of two County Commissioners, two City Councilors, and a public member appointed by the elected members. The JPA designates the Sangre de Cristo Water Division of the City of Santa Fe as BDD Project Manager.

BDD Project construction is 50% complete as of August 2009. Approximately half of the BDD Project design and construction budget of \$216 million has been expended. Construction began in September 2008, following six and one-half years of a formal environmental impact statement process.

III. Source Water Protection is the First Line of Drinking Water Quality Protection

The BDD Board and BDD Project Manager are active on many fronts to:

- (1) Assure that the drinking water produced by the BDD Project meets all safe drinking water requirements and standards, and
- (2) Demonstrate on a scientific basis that the drinking water is safe with respect to ~~LANL environmental pollution in order to improve customer confidence.~~

Our first goal is to implement the principle of source water quality protection as the first line of defense to ensure the quality of the Santa Fe community's public drinking water. Health-based standards are needed for source water so that a simple comparison of observed water quality with the standards will answer the question: does the source water contain harmful substances in harmful amounts? The BDD Board supports the NMED's proposed criteria for five LANL-origin radionuclides as fulfilling the public need to scientifically set health-based standards for LANL origin contaminants that are of public concern and have been measured in the Rio Grande historically.

IV. Request that NMWQCC Adopt NMED's Amended Proposal for Public Water Supply Designated Use and Segment-Specific Criteria for the Buckman Reach of the Rio Grande

The BDD Board and Project Manager have concluded that we need, and therefore request, the NMWQCC's approval of NMED's amended proposed standards to formally establish public water supply as a specific designated use of surface waters in New Mexico and to protect the water quality by setting criteria for contaminants of concern for public water supply. Setting health-based criteria for five LANL origin radionuclides of concern, as proposed by NMED, establishes official benchmarks that public entities and BDD Project drinking water consumers can apply to evaluate and interpret monitoring results. NMED's proposed criteria will apply only to the Rio Grande above Cochiti Reservoir, and only to the public water supply designated use. These are the first criteria for this use.

Three unique circumstances juxtapose the radionuclide environmental contamination at LANL and the BDD Project:

- (1) The Los Alamos/Pueblo Canyon (which also receives tributary flow from Acid, Pueblo and DP Canyons) conveys contaminants from LANL to the Rio Grande;
- (2) the BDD Project's point of diversion is located three miles downstream from the mouth of Los Alamos/Pueblo Canyon; and
- (3) the schedule for BDD Project initial operations in 2011.

These circumstances justify the promulgation of the segment specific criteria in Section 114 in this Triennial Review.

The BDD Project is the only public water supply with plans to use the Rio Grande upstream of Cochiti in this Triennial Review cycle. As stewards of the only drinking water system directly affected by LANL's radionuclide environmental contamination in this segment,

the BDD Board requests that the NMWQCC approve the segment specific criteria during the 2009 Triennial Review process.

The Rio Grande at Albuquerque was included the area of applicability of these segment specific criteria in the NMED 2008 discussion draft. The Albuquerque/Bernalillo County Water Utility Authority requested that the Rio Grande at Albuquerque be dropped on the basis that applicability of these criteria only to the reach above Cochiti would also protect Albuquerque's drinking water. The BDD Board concurs that the reach above Cochiti, adjacent to and downstream of LANL drainages, is the critical segment for the application of these criteria.

V. General Description of the Water Quality of the Rio Grande at Buckman

The general water quality at the BDD Project's point of diversion is highly variable. Although it is often relatively clear, the Rio Grande at Buckman may become less clear with suspended sand, silt, clay, natural organic material and microbes. However, neither the river water, the river sediments, nor the river bed typically contain toxic or hazardous substances in toxic or hazardous amounts, nor do they contain measurable radionuclides of those addressed in the proposed amendments of NMAC 20.6.4.114 that are distinguishable from normal background. (Englert, 2007; LANL, 2007 and 2008)

However, storm water runoff and other runoff (such as from the recent Los Alamos County potable water line break at one of the oldest and most contaminated plutonium processing areas at LANL) can erode and transport contaminated sediment from locations with contaminated soils into the bottoms of Los Alamos/Pueblo Canyon and its tributaries, and then to the Rio Grande upstream of Buckman (through sediment transport in storm water flows). Large storm water flows, particularly in the years immediately following the Cerro Grande fire, transported radionuclide and other pollutants to the Rio Grande. Concentrations of contaminants

of concern in the Rio Grande can, for a few hours at a time, exceed the concentrations associated with long-term health-based maximum average exposure limits. This is a matter of BDD Board and public concern, even though the health effects of these radionuclide contaminants are cumulative and chronic, not acute.

A poster prepared by scientists employed by NMED's DOE Oversight Bureau presenting their data, calculations, and interpretations of one such flood on August 8, 2006 is attached as "BDDB Exhibit B-3".

VI. Five Facts Protect the BDD Project Water Consumer with Respect to LANL-Origin Radionuclide Contaminants of Concern

The BDD Board commissioned an independent evaluation by Dr. Kerry Howe (Howe, 2008) of Rio Grande water quality and the ability of the BDD Project's advanced water treatment plant to remove any contaminants of concern. Dr. Howe concluded that the BDD Project has multiple tiers of protection with regard to LANL pollution in BDD Project drinking water (see items 1, 3, and 4 in the list below). Additional regulatory requirements have provided another tier of source water protection as described below (item 2). And, the BDD Board, as a matter of public policy, will provide timely, transparent data regarding river and drinking water quality to the public (item 5).

- (1) The Rio Grande does not contain LANL pollution except during major storm events, which result in significant flows from Los Alamos/Pueblo Canyon to the Rio Grande.
- (2) The Environmental Protection Agency ("EPA") and the NMED are regulating the lands and facilities at LANL to reduce pollution in storm water runoff and to meet stringent performance standards. The vehicles for EPA requirements are a Federal Facilities Compliance Agreement, which will be replaced by the 2009

National Pollution Discharge Elimination System ("NPDES") permit for storm water runoff from LANL contaminated waste sites. The NPDES permit is currently stayed pending an appeal on the grounds that the permit should be even more stringent. NMED, under a consent order with LANL, required LANL, in 2008, to reduce sediment transport in the Los Alamos/Pueblo Canyon and their tributaries.

- (3) The BDD Project intends to manage, and may temporarily cease, diversions if an early notification system indicates that runoff from Los Alamos/Pueblo Canyon is bringing pollution to the river. We are working with LANL to have this system designed, implemented and maintained.
- (4) Robust water treatment will remove LANL contaminants of concern.
- (5) Raw and treated water will be sampled, monitored and reported to the public.

The segment specific criteria for LANL origin radionuclides are needed to inform the
public of the potential health risks by allowing for a simple comparison between water quality measurements and the health-based criteria.

VII. Six Actions the BDD Board has Requested of LANL and DOE as a Matter of Community Concern

In November 2007, the BDD Board requested six actions of the Department of Energy (DOE) and LANL to protect the BDD Project from LANL pollution. The BDD Board considered remarks presented to the BDD Board by NMED and LANL scientists and managers in making these action requests. The six actions are:

- (1) Prevent migration of LANL pollution to the Rio Grande;
- (2) Properly monitor the migration of pollution to the Rio Grande;

- (3) Measure LANL legacy contaminants in alluvial sediments disturbed by BDD Project construction;
- (4) Provide an early notification system to cease diversions when LANL pollution is flowing to the Rio Grande in Los Alamos Canyon storm water runoff;
- (5) Pay for monitoring of LANL pollution that the BDD Project otherwise would not need to do; and
- (6) Pay for an independent peer review of the risk of LANL pollution in drinking water.

A July 1, 2009 memorandum to the BDD Board summarizing the status of each action request is attached "BDDDB Exhibit B-4".

The EPA and the NMED have each established new regulatory requirements that will reduce the erosion and transport of contaminated sediments by storm water. The EPA's requirements are in the form of a NPDES permit, which establishes the requirement for best management practices at 406 LANL waste sites, individual site runoff monitoring, and implementation of more effective controls as needed to achieve stringent water quality protection limits in storm water runoff. Implementation of this 2009 NPDES permit is currently stayed pending an appeal that seeks to make the permit more stringent.

NMED's requirements pursuant to the LANL consent order contain requirements to reduce erosion and transport of contaminated sediments in the canyon bottoms. These include:

- (1) Removal and disposal of sediments upstream from the weir located in Los Alamos Canyon immediately upstream from its confluence with Pueblo Canyon,
- (2) Improvements to the existing Los Alamos Canyon weir to more effectively trap sediments,

- (3) Construction of a grade control structure near the mouth of Pueblo Canyon that will stabilize and stop head-cutting erosion of a wetland occupying the long floodplain above the mouth of Pueblo Canyon, and
- (4) Construction of a second grade control structure that LANL has designed to bury contaminated sediments in the DP Canyon floodplain and thereby make the contaminants unavailable for erosion and surface water transport.

Some of the contaminated sediments removed from the sediment collection basin at the Los Alamos Canyon weir were contaminated to a degree that required remote disposal in a radioactive waste disposal site. Modifications to the existing Los Alamos Canyon weir and the two new grade control structures also will reduce flow downstream flood volumes and peak flows, flood velocities, and erosion from floods.

Contaminants of concern include plutonium, americium, cesium, strontium, and tritium, the five contaminants addressed in the proposed amendments to NMAC 20.6.4.114.

VIII. Need for segment specific criteria for the Rio Grande above Cochiti for LANL radionuclide contaminants of concern

A health-based standard is needed to serve as a benchmark against which LANL origin radionuclides in the Rio Grande can be publicly evaluated. The absence of specific numeric health-based criteria for these man-made radionuclides makes interpretation difficult or impossible for most consumers, particularly because the lack of a standard makes misunderstanding or misinterpretation more likely. As an example, official health-based water quality criteria for the contaminants of concern would have been helpful as a benchmark to guide public interpretation of the measurement of trace amounts of contaminants during the BDD Project EIS process.

The EPA, through the 2000 final drinking water regulations for radionuclides (EPA Drinking Water Regulations, 2000) promulgated pursuant to the Safe Drinking Water Act, updated national standards for radionuclides in drinking water. Maximum contaminant levels were maintained for gross alpha activity, gross beta activity, and established or modified for certain individual radionuclides (such as radium and uranium) that are naturally occurring. The gross alpha and gross beta activities are a screening test. If the screen is not passed, additional testing for specific radionuclides is required. The EPA chose not to individually regulate the five radionuclides that are the subject of the NMED proposed amendments to NMAC 20.6.4.114. The EPA reasoned that these radionuclides do not generally occur in drinking water supplies or source waters. Specific regulation of them would require huge public expense for their routine measurement, with no corresponding benefit. The EPA indicated that states should address these contaminants in the few locations where the contaminants could be problematic.

~~These man-made radionuclides normally are detected or measured in the Rio Grande in~~ amounts that are indistinguishable from background and are from atmospheric nuclear bomb testing decades ago. Flash floods flowing down the normally dry Los Alamos/Pueblo Canyon drainage to the Rio Grande occasionally transport much higher concentrations to the Rio Grande for a few hours. This latter fact has caused public concern, and is the basis of the need for a standard for interpretation of the health risk of such events.

NMED's proposed amendments to NMAC 20.6.4.114 rely on the currently applicable federal risk coefficients for radionuclides ingested in drinking water. These coefficients are published in an EPA report entitled *Cancer Risk Coefficients for Environmental Exposure to Radionuclides, Federal Guidance Report No. 13* (EPA Federal Guidance Report No. 13, 1999), which is the latest in a series of reports issued by the EPA to provide official guidance for federal

agencies to evaluate risk and make decisions associated with environmental exposure to radionuclides through seven specific pathways. This report presents the current method, models, and calculation framework EPA uses to estimate the lifetime excess risk of cancer induction following intake or external exposure to radionuclides in environmental media. It replaces earlier risk quantification that relied on the 'reference man'.

Federal Guidance Report No. 13 explains that the risk coefficients can be used for either acute or chronic cumulative exposure, and incorporates the increased risk of biological damage for exposures to children. NMED's commentary related to the proposed amendments to NMAC 20.6.4.114 indicates that drinking water ingestion risks are calculated using a 70-year lifetime of cumulative exposure, which includes exposure as a child.

Cumulative ingestion of radionuclide activity is the measure of chronic, cumulative exposure. NMED's proposed amendments to NMAC 20.6.4.114 indicate that the annual rolling ~~average of available water quality measurements is to be the basis for determining compliance~~ with the criteria. This approach is consistent with the federal guidance. It would not be appropriate to utilize the highest activity of a radionuclide from a series of samples in calculating the risk of a lifetime of exposure.

Finally, there are precedents for establishing health-based criteria for contaminants in surface water or groundwater based on ingestion of that water as drinking water. The public can be assured that their drinking water is compliant with health-based standards for LANL origin radionuclides if the source water is compliant.

IX. Conclusion

There is an ongoing need to establish the proposed standards and criteria so that agencies and consumers have an official benchmark for their interpretation of water quality information in

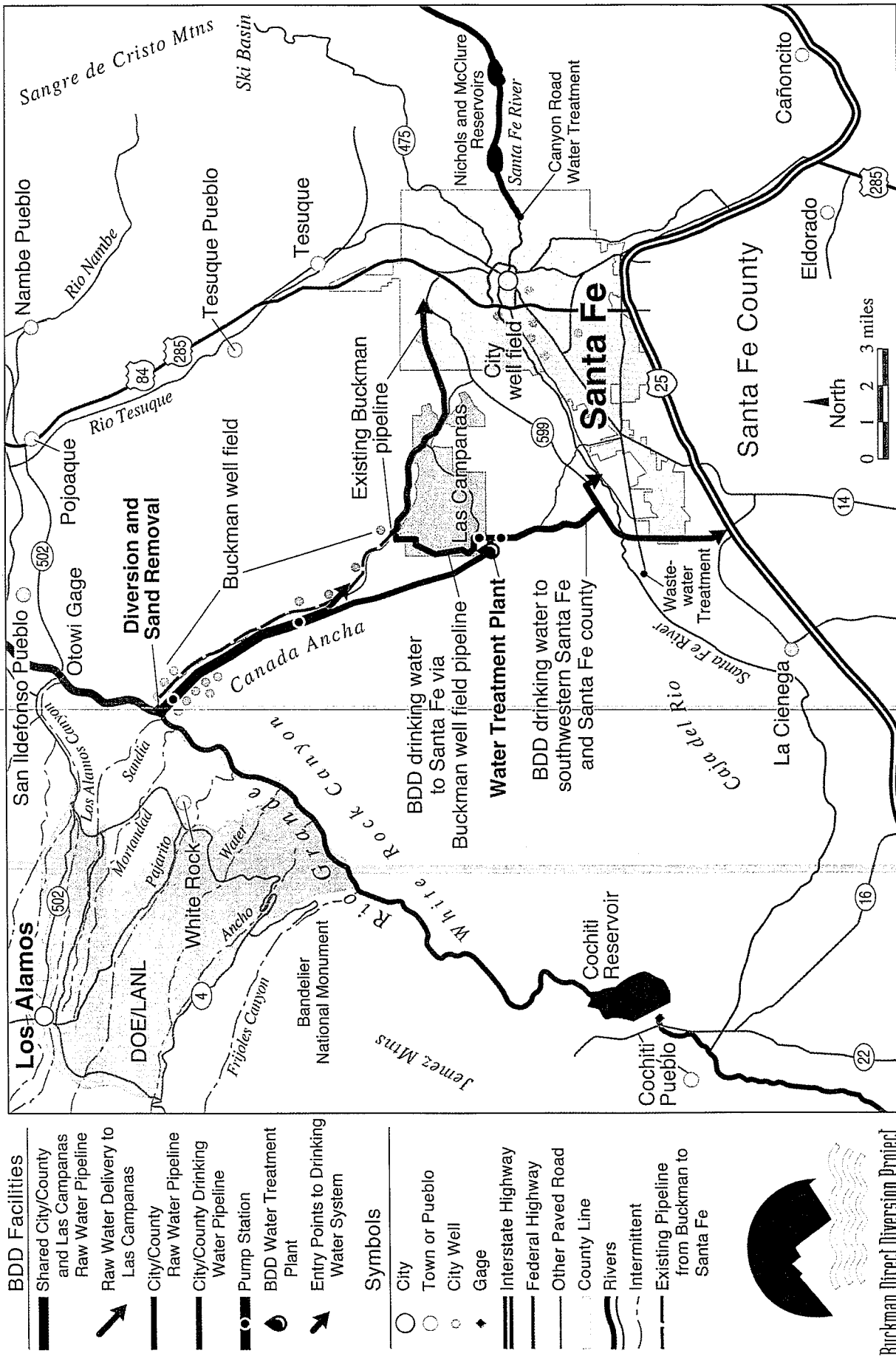
the future when water from the Rio Grande becomes the main source of Santa Fe's public drinking water supply.

The BDD Board supports and requests the NMWQCC's approval of NMED's amended proposed standards.

REFERENCES

- Englert, D., Dale, M., Graznow, K., and Mayer, R., *Distribution of Radionuclides in Northern Rio Grande Fluvial Deposits near Los Alamos National Laboratory, New Mexico*, Department of Energy Oversight Bureau, New Mexico Environment Department, 2007.
- Howe, Kerry J., 2008. *Effectiveness of the Proposed Santa Fe City/County Water Treatment Plant for Removing Radiological and Other Specific Contaminants*, report to the BDD Board.
- Los Alamos National Laboratory (LANL), unpublished data from cooperative river water quality monitoring program with the Buckman Direct Diversion Project Upstream of Los Alamos Canyon and downstream at the Buckman river diversion site, July 30, 2008, September 29, 2008, December 1, 2008, February 18, 2009, May 14, 2009.
- United States Environmental Protection Agency, *National Primary Drinking Water Regulations; Radionuclides; Final Rule*, (EPA Drinking Water Regulations) 40 CFR Parts 9, 141, and 142, Federal Register Vol. 65, No.236, December 7, 2000.
- United States Environmental Protection Agency, *Cancer Risk Coefficients for Environmental Exposure to Radionuclides, Federal Guidance Report No. 13*, EPA Report No. 402-R-99-001, September, 1999 (EPA Federal Guidance Report No. 13, 1999).

Buckman Direct Diversion Project



Helping provide a safe, sustainable, reliable water supply for the Santa Fe Region. See back page for more explanations.

For more information, visit www.bddproject.org or call Rick Carpenter, BDD Project Manager, at (505) 955-4206, Lynn Komer at (505) 660-7682 or Patti Watson at 1-800-687-3417, ext. 3134.

The Role of

BDD Project

Why we need the BDD now

Despite ongoing, very successful water conservation programs, the Santa Fe region does not have enough drinking water to meet our current needs. Our two current sources of water are groundwater wells that pump water from an underground aquifer and Santa Fe River reservoirs that hold runoff water.

Currently, we are overpumping the groundwater wells resulting in damage to the underground aquifer. Even in the best of years, the Santa Fe River reservoirs can only supply about half of the water our region needs. In very dry years, they cannot supply much water at all and emergency water restrictions have to be put in place.

Another Source of Sustainable and Reliable Drinking Water

The BDD provides a third source of water, improving the regional water supply under drought conditions, replacing current groundwater pumping that cannot be sustained, and making a drought reserve possible.

The City of Santa Fe and Santa Fe County are constructing the BDD Project to add this source of water by diverting and treating water available from the Rio Grande that we already own but cannot access through groundwater pumping. The BDD Project will create the infrastructure required to fully use the City and County permanent yearly supply of the San Juan-Chama Project water, which is about half of the Santa Fe Community's current total annual water use. The BDD Project also will access native Rio Grande water rights owned by the County and Las Campanas.

This surface water is renewable. It will allow major reductions in groundwater pumping, thereby reserving the aquifer for use in times of drought, rather than for our daily water supplies. This provides a much more sustainable, renewable and drought-resistant water supply system for the entire Santa Fe community. It also fills a water supply gap identified in the Jemez y Sangre regional water plan.

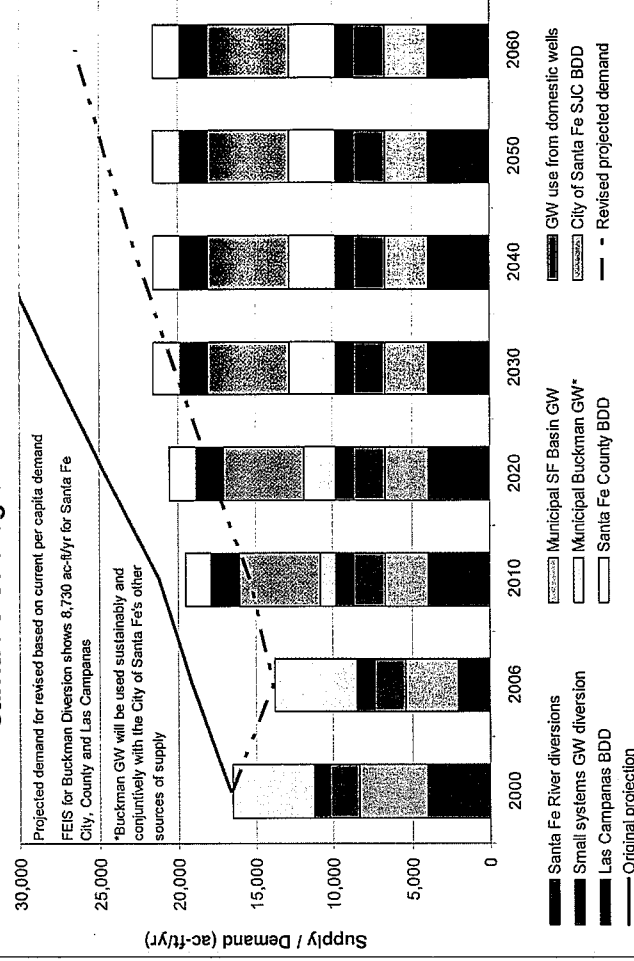
According to a recent update, the BDD Project and the very effective water conservation successes of the Santa Fe Community almost eliminate the gap between the Santa Fe sub-region's water supply and water demand identified in the state-approved Jemez y Sangre Regional Water Plan. This plan was completed during the severe droughts of 2000 and 2002 and was updated in 2007 (see graph to right).

Future additional water supplies will be needed to supply population growth served by the City of Santa after about 2020 based on current growth rates.

Water Supply Amounts

The BDD Project size was selected in 2001 to provide a renewable water supply for the area's projected 2010 customer population under existing climate conditions when used together with reduced amounts of groundwater pumping and water from the Santa Fe River. It is important to note that the City of Santa Fe and Santa Fe County have made our region a leader in water conservation and drought management. Due

JEMEZ Y SANGRE REGIONAL WATER PLAN UPDATE
Projected Municipal and Domestic Demand
Santa Fe Subregion — Revised 2007



Notes: Water supply and demand values represent diversions (not consumption) during average conditions. BDD=Buckman Direct Diversion

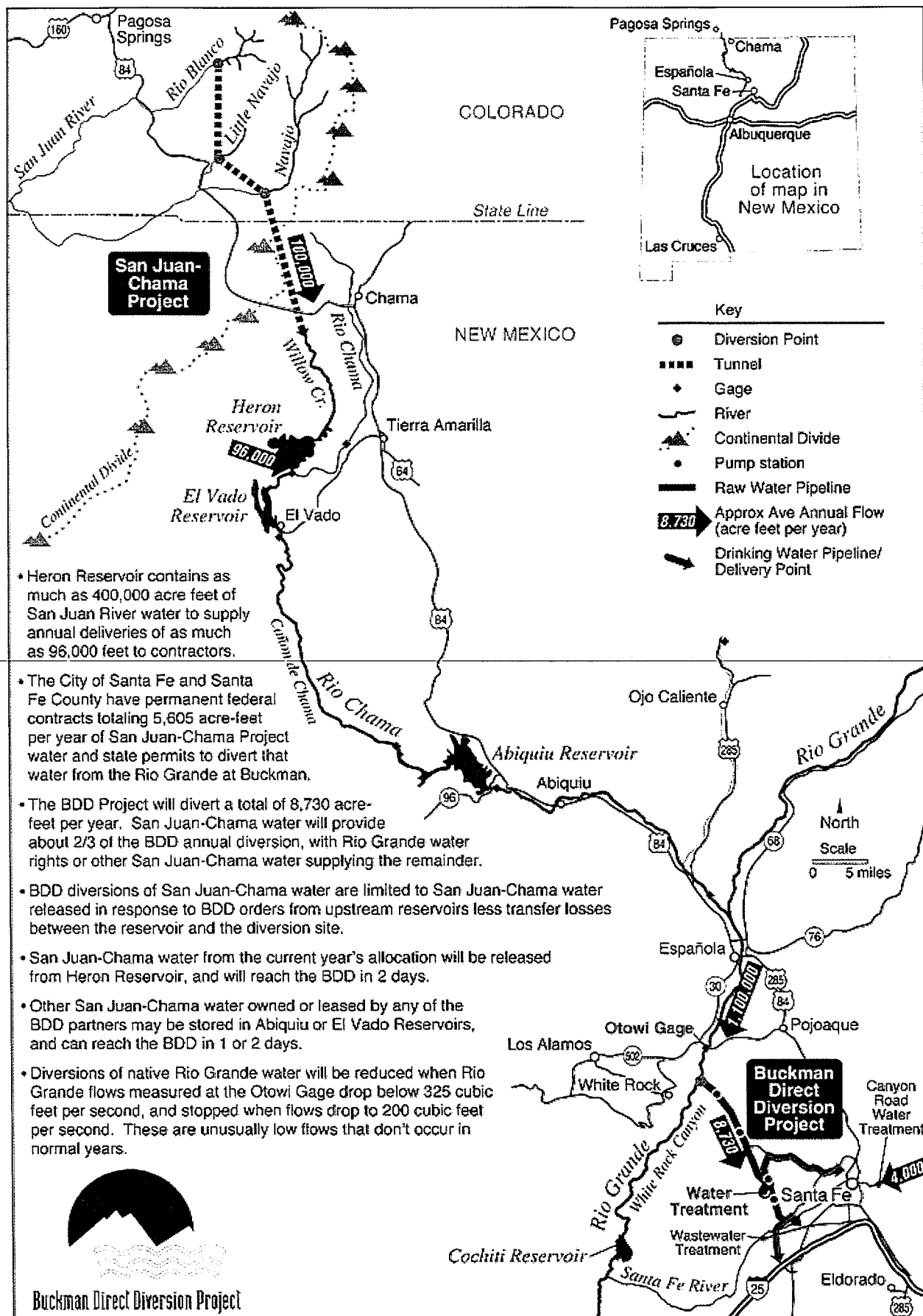
to major reductions in water use by City and County customers, the City will not need additional water supplies until after 2020. The County's share of the BDD Project will satisfy their requirements for decades in the future.

The Buckman Direct Diversion Project will be able to deliver up to 15 million gallons per day (MGD) of treated drinking water for City and County water system customers, which is approximately equal to the current maximum daily water demand of existing City and County customers. Normally, the BDD Project will operate at about one-half of full capacity. Annual water diversions from the Rio Grande are limited to 8,730 acre-feet per year, compared to total current water use of about 10,000 acre-feet per year.

The BDD will be designed to deliver up to 3.2 MGD of raw, untreated Rio Grande water to Las Campanas at the location shown on the BDD Project map. Other Las Campanas pipelines and facilities required for Las Campanas to use the water are not a part of the City and County's contract for BDD facilities design and construction.

While there are no guarantees that the BDD Project will be able to provide its full water supply every year, technical studies indicate that the annual water supply should be available in most years.

Buckman Direct Diversion Project and the San Juan-Chama Project



BDDSC6-11-09

The San Juan-Chama Diversion Project and How It Relates to the BDD

The San Juan-Chama Diversion Project is very important to the BDD for the following reasons:

1. The City and County have permanent contracts with the Bureau of Reclamation for a total of 5,605 acre-feet of San Juan-Chama Project water per year.
2. This 5,605 acre-feet of water per year will provide approximately two-thirds of the BDD allowable annual maximum diversions. It is a little more than half of the total annual potable water use by the City and County public water systems and Las Campanas over the last several years.
3. The San Juan-Chama Project water is from a renewable surface water resource.
4. Water from the San Juan-Chama Project is unusually reliable.
5. The State Engineer has issued a permit to the City of Santa Fe and Santa Fe County for diversion of 5,605 acre-feet of water per year at the BDD.

6. As much as 20% additional San Juan-Chama water can be diverted at the BDD under the State Engineer permit in any year, subject to availability of the water and the prior approval of the State Engineer.

The San Juan-Chama Diversion Project, which was constructed and is owned by the Bureau of Reclamation, diverts water from three headwater streams of the San Juan River in southern Colorado and delivers the imported water into the Chama River in New Mexico.

Designed to Benefit Our Region

This water flows through a tunnel under the continental divide into Heron Reservoir. It is part of New Mexico's 11 percent share of water from the Upper Colorado River Basin. The Bureau of Reclamation signed contracts with various New Mexico municipalities and irrigation districts for the "firm yield" of water provided by the project. According to the Bureau of Reclamation, "the estimated amount of SJC water that can be provided from Heron Reservoir with reasonable certainty each year (known as firm yield) is 96,200 acre-feet."

About the Heron Reservoir

The San Juan-Chama Project began importing water into Heron Reservoir in 1971. Heron Dam, which is part of the San Juan-Chama Project, stores only San Juan-Chama water and holds 400,000 acre-feet, which is approximately equal to four years of full supply for all of the contractors.

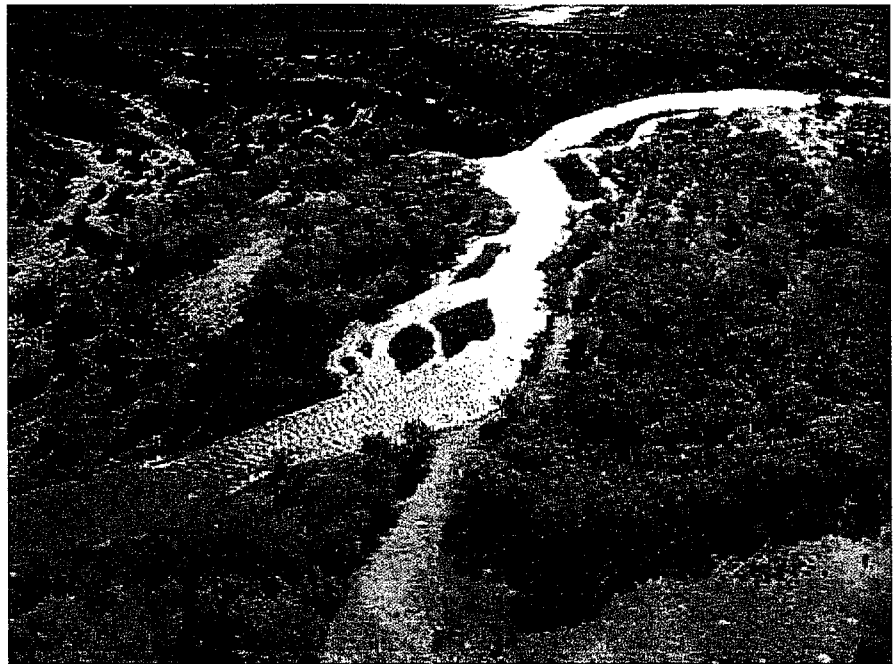


Photo courtesy of the Albuquerque Bernalillo County Water Utility Authority

Rio Chama below Abiquiu Dam.

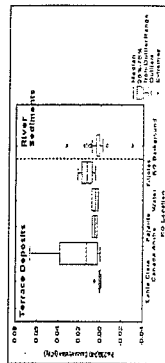
Heron Reservoir is operated to supply the San Juan-Chama Project's calculated "firm yield" by releasing previously stored water in drier years and storing water in wetter years. Annual diversions of water into Heron Reservoir depend on the snowpack along the continental divide in Colorado south of Wolf Creek Pass. No shortages have yet occurred. Future shortages, if any, will be shared by all contractors.

Contractors place orders for their annual contract allocation to be released from Heron Reservoir to the Chama River. Those orders must specify the destination and the intended beneficial use for the water that are in accordance with the authorizing legislation and the particular contract involved. Water does not become a contractor's property until it is released from Heron Reservoir.

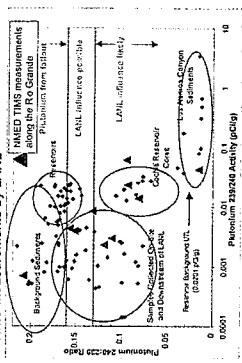
The City and County pay a combined total of approximately \$60,000 a year to the Bureau of Reclamation for their share of Reclamation's annual operations and maintenance expenses for the San Juan-Chama Project. They also pay approximately \$165,000 per year as repayment for their share of the project capacity. The latter payments will be completed in 2015.

For more information, visit www.bddproject.org or call Rick Carpenter, BDD Project Manager, at (505) 955-4206, Lynn Komer at (505) 660-7682 or Patti Watson at 1-800-687-3417, ext. 3134.

Box and Whisker Presentation of 239/240Pu

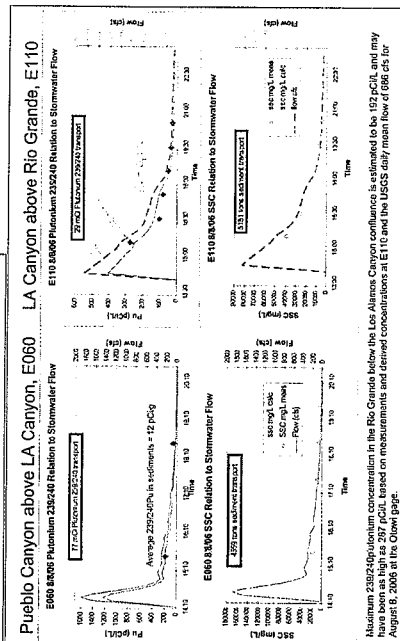
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Relation of Thermal Ionization Mass Spectroscopy (TIMS) measurements from this project to earlier TIMS Measurements by LANL



TIMS evaluations are capable of identifying Laboratory ^{235/238} plutonium measured at levels below statistical reference values. Note the measurements of samples collected "On-Site and Downstream of LANL, and Coohtii Reservoir Corals" relative to the 0.0201 pCi/g Reservoir Background Upper Tolerance Level (UTL).

8/8/06 Example of Contaminant Transport in Los Alamos Watershed Stormwater



Maximum ²³⁹240Pu plutonium concentration in the Rio Grande below the Los Alamos Canyon confluence is estimated to be 192 pCi/L and may have been as high as 297 pCi/L based on measurements and derived concentrations at E110 and the USGS daily mean flow of 686 cfs for August 8, 2006 at the Otowi gauge.

The New Mexico Environment Department's Department of Ecology Oversight Bureau has identified radiocesium contamination originating from the Los Alamos National Laboratory (LANL) in abandoned channels, old flood plains, and other fluvial deposits along the Rio Grande. The highest proportions of LANL contaminants in sediments are associated with the discharge sources. Sediment sorting by fluvial processes throughout the past 60 years contributed contaminant concentrations in White River Canyon. Sediments were collected from multiple depth intervals in cores and otoliths at five sites along the Rio Grande and from within the active Rio Grande channel at 8 sites. We identified 19 contaminant sources by evaluating atom ratios of plutonium isotopes 239 and 240, by statistical comparisons of downstream radioactive measurements to background reference conditions, by comparing NMED data to LANL historical background values, and by investigating grain-size distribution and contaminant concentration relationships. We selected a site at Santa Clara Pueblo ~ 12 km upstream of the Los Alamos Canyon and Rio Grande confluence at Otowi Bridge to demonstrate background conditions. The downstreaming four sites are downstream of the Otowi Bridge; Calabaz Acha ~ five km downstream, while the Pajarito and Water canyon sites are about 11 and 14 km below the Otowi bridge. Most of the LANL legacy contaminants in sediments along the Rio Grande were derived from the Los Alamos watershed. We found that ²³⁹Pu/²⁴⁰Pu ratios were most persistent radionuclides for in-service downstream of LANL. By far, the largest range in ²³⁹Pu/²⁴⁰Pu ratios was observed at Calabaz Acha followed by the Frijoles site, and then the Water Canyon site. Elevated levels of ²³⁹Pu/²⁴⁰Pu ratios in otoliths corresponded to the elevated Rio Grande Acha site, and ²³⁹Pu/²⁴⁰Pu ratios were elevated at the Frijoles site. Contaminant measurements at the Pajarito site were all indistinguishable from background, although we identified legacy sediment sources collected below the Rio Grande including localities 6 km (38 miles) north of the Otowi Bridge at Pilar, New Mexico to 134 km (83 miles) south of the Otowi Bridge to Albuquerque. These sites represent Otowi Bridge represent upper Rio Grande background reference samples while the five sites downstream of Otowi Bridge represent the downstream sample population. Upstream and downstream channel bed sediments were indistinguishable and higher radionuclide concentrations similar to global fallout levels.

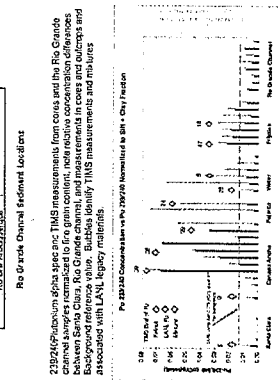
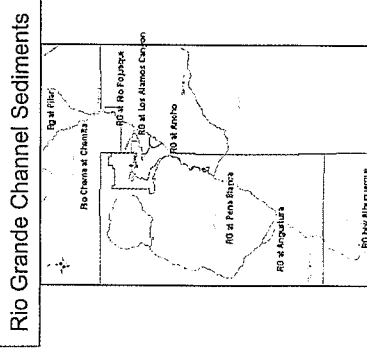
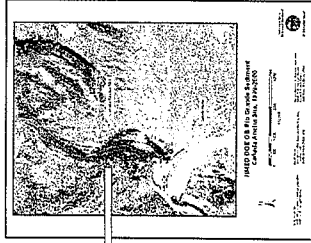


Figure 1. Map of the Los Alamos Canyon region showing the location of the Pueblo Canyon landfill and the Los Alamos Canyon. The map includes labels for 'Pueblo Canyon Landfill', 'Los Alamos Canyon', and 'Los Alamos Canyon'. A scale bar indicates 0 to 1 mile. A north arrow is also present.

Examples of stormwater plots for an August 8, 2008 event, the largest single flood since Ceno Grande Fire, and estimates for ^{239}Pu plutonium and sediment mass transport from lower Pueblo Canyon and lower Los Alamos Canyon are demonstrated to the right.

These studies may also identify the effects of wetlands in Pueblo Canyon and the low-head weir in Los Alamos Canyon in regard to production of contaminant transport from Laboratory boundaries to the Rio Grande.

A report was released in 2003 describing transport in 2000 to 2002 of stormwater events. A 2003 to 2006 stormwater report is in progress and already estimates by Ralph Food-Schmid (2007) have identified at least 198 mCi ^{239}Pu plutonium in 45,535 tons of sediment transported beyond Pueblo Canyon since the fire to the end of 2006. These estimates are

Minimum Flow	Mean Flow	Median Flow	Total Plutonium 239/240	Total Suspended Sediment
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	cfs	cfs	cfs	Transp mCl	Transp ions mCl
	147	84	30	8.4	1,033
	1440	145	25	54.3	12,552
	583	65	16	26.4	5,453
	749	142	39	28.2	6,066
	504	71	21	23.6	5,628
	129	93	101	8.1	1,103
	387	70	70	54.1	11,701
	1926				



Buckman Direct Diversion Project

A joint regional project of the City of Santa Fe and Santa Fe County to build a reliable and sustainable water supply.

MEMORANDUM

July 6, 2009

TO: Buckman Direct Diversion Board

FROM: Norm Gaume, P.E., BDD Project Consultant
Rick Carpenter, BDD Project Manager

SUBJECT: Status of Six Action Steps BDD Board Asked of DOE and LANL to Protect BDD Source Water Quality

In November 2007, the BDD Board sent a letter to the US Department of Energy (DOE) and Los Alamos National Laboratory (LANL) asking they take six specific action steps to address BDD water quality issues.

In early 2009, the BDD Board requested assistance from the New Mexico delegation to the U.S. Congress and from the New Mexico Legislature to obtain additional cooperation from DOE and LANL. Significant progress has been made subsequently, although the DOE/LANL response to one action item and some aspects of others remain in negotiation.

The status of each request is summarized below. One is complete. Four are in progress. Three of these have aspects that remain to be negotiated. One action step has no agreement to date. This status is as of the beginning of July 2009.

Stop migration of LANL contaminants to the Rio Grande and groundwater.
Action Step 1. STATUS: In Progress.

The U.S. Environmental Protection Agency and the New Mexico Environment Department (NMED), under applicable federal and state law, have ordered DOE to implement numerous improvements to reduce contaminated storm water runoff to the Rio Grande, before the BDD begins operations. Both agencies requirements include performance monitoring and subsequent preventive actions where additional monitoring indicates additional steps are necessary to meet explicit and stringent limitations. These regulatory requirements satisfy the BDD Board's request for actions



to stop the migration of contaminants. A memorandum to the BDD Board dated February 24, 2009, describes these new regulatory requirements in more detail.

No significant actions have yet resulted from this request with regard to the groundwater pathway. However, that has been a major focus of the NMED Consent Order.

Properly monitor the transport of legacy contaminants in both the surface water and groundwater flow systems.

Action Step 2: STATUS: In Progress

Monitoring is a major component of the regulatory requirements described under Action Step 1 and the Early Notification System, Action Step 4. LANL also has undertaken significant voluntary monitoring of a comprehensive suite of contaminants from paired samples collected six times per year at the Otowi Bridge, which is upstream from the mouths of canyons that drain LANL, and at the Buckman Diversion site. NMED's DOE Oversight Bureau is conducting a sampling program this summer to collect samples from the Rio Grande at five locations when stormy weather has caused runoff to the Rio Grande. NMED also is conducting an infrequent but routine water quality survey of the northern Rio Grande. NMED is collecting an extra gallon of water for each mainstem Rio Grande sample. NMED will analyze for the radionuclide screening parameters "gross alpha" and "gross beta." If either of these screens is elevated, the BDD Project has indicated it will pay for additional specific radionuclide analyses.

In the aggregate, these different monitoring programs adequately address the BDD Board's requested action "to properly monitor" transport of contaminants in surface water.

Additionally, LANL has orally indicated its interest in evaluating existing monitoring wells in the immediate vicinity of the Rio Grande and the western area of the Buckman well field. Intensive water level monitoring of different wells in conjunction with Los Alamos County and Buckman well fields pumping may provide additional knowledge of the complex hydrogeologic groundwater flow system linking LANL, the Rio Grande, and the Buckman wells.

No significant actions have yet resulted with regard to groundwater transport monitoring.

Measure the radioactive and toxic contamination of buried sediments at and upstream of the BDD diversion site.

Action Step 3. STATUS: Completed

NMED and the BDD Board designed, funded and completed this work in 2008. The U.S. Forest Service, who required this work, approved it.

Completion of this work was reported to the BDD Board in May 2008 and is the subject of an NMED report posted on the BDD web site. LANL legacy contaminants in areas to be disturbed by construction were either not detected or were indistinguishable from the background levels of uncontaminated sediments from Canada Ancha.

Provide an early notification 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.

Action Step 4. STATUS: In Progress. Construction has begun; some details remain in negotiation.

As the result of negotiations held in March, LANL and BDD Board representatives have agreed that LANL will rebuild three stream gages in Los Alamos and Pueblo Canyons and transmit the information to the BDD Project control room in near-real-time. LANL in cooperation with the BDD Project Manager have secured the written permission of the Pueblo of San Ildefonso to rebuild the LANL gage at the mouth of Los Alamos Canyon and that work has begun. LANL in 2009 will reconstruct the gages on Los Alamos and Pueblo Canyons above their confluence. LANL also will install automatic samplers that will collect samples at times of storm water runoff flow at these gages and will perform analyses of contaminants.

The BDD Project Manager has requested that DOE/LANL provide additional features for the early notification system. These remain in negotiation. Nonetheless, the agreements to date represent a significant step toward completion of the Early Notification System.

Monitor LANL Contaminants in BDD Diversions, Sand Return, Residuals, and Drinking Water.

Action Step 5. STATUS: In negotiation

DOE/LANL and BDD Project representatives discussed this requested action during reinigorated negotiations held earlier this year. BDD Project representatives offered the alternate, simpler request per the title above, explained that these analyses would not be required or needed but for LANL historical waste discharges. One to two years of initial monitoring is required for quality assurance, safe drinking water compliance, and public confidence.

DOE and LANL have not yet made any commitment regarding this requested action. BDD Project Representatives have compiled a detailed description of the needed monitoring.

Provide funding for the BDD Board to retain independent peer review by qualified 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.

Action Step 6. STATUS: Oral agreement reached. In progress.

DOE/LANL and BDD Project representatives have reached agreement on the scope of services for an Independent Peer Review for the BDD Board, as set forth in a request for proposals to be issued by the City of Santa Fe for the BDD Board. The RFP will be advertised in early July 2009. DOE/LANL will have no further role in the BDD Board's selection of or contract with the Independent Peer Reviewer.

The Independent Peer Reviewer, based on existing information, data, and studies, will prepare an independent risk assessment regarding LANL contaminants with exposure through the drinking water pathway. That exposure and risk will be compared to other pathways of exposure to LANL contamination and public exposure to radiation and radionuclides of other origins, including natural background. The RFP scope-of-services emphasizes public risk communication and includes a series of at least three public meetings.

The first public meeting will be held in 2009. Its purpose is for the Independent Peer Reviewer to solicit public questions and concerns. The Independent Peer Review will be concluded in 2010.

Pursuant to these negotiations, the BDD Project has submitted a draft grant application to the DOE for \$200,000. The grant application budget indicates that the BDD Board will expend approximately \$50,000 for in-kind services and management of this effort. A recent oral description of the grant status indicated that the application is complete and that funding is expected within two months.

If the BDD Board has additional or unanswered questions or concerns at the conclusion of the work as described in the RFP and the resulting professional services agreement with the selected independent peer reviewer, that work can be accomplished under an amendment to the initial agreement that DOE and LANL have agreed to fund.

We look forward to addressing any questions or concerns that BDD Board members may have regarding these matters.