

**City of Santa Fe**



**New Mexico**



**BUCKMAN DIRECT DIVERSION BOARD**

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Subject: LANL Contamination of water resources in Santa Fe County

Dear: Mr. Real and Ms. Stiger:

Thank you for the participation of Paul Huber and Danny Katzman at the Buckman Direct Diversion Board's meeting on October 4, 2007, regarding problems created by the Los Alamos National Laboratory (LANL) historical discharges and releases from waste disposal sites of radioactive and toxic waste to the environment. Thank you also for LANL and DOE staff cooperation with the Buckman Direct Diversion (BDD) project team.

We request commitment and look forward to continued cooperation from the Department of Energy (DOE), LANL, and Los Alamos National Security, LLC, to stop the continued migration of LANL-origin waste to the environment, mitigate the impacts of wastes that have escaped the LANL boundaries and are in the environment at the location of the planned BDD, and otherwise reduce the burdens and costs that these wastes place on our regional drinking water project. We appreciate DOE's and LANL's acknowledgement of these problems, their recognition of the need for and validity of the BDD, and their recognition that the actions we are requesting are appropriate.

For your information, the Buckman Direct Diversion Board was created to govern the Buckman Direct Diversion Project by a State-of-New Mexico approved Joint Powers

Agreement between the City of Santa Fe (City) and Santa Fe County (County). The Board consists of four elected officials and one member of the public. The City and the County are the project owners. The Board directed at its October 4, 2007 meeting that this letter be sent to you. The purpose of the BDD is to provide clean, safe, and reliable drinking water on a sustainable basis to residents of the City of Santa Fe and Santa Fe County. Certain water quality issues, however, that are related to LANL, must be addressed if the BDD Board is to achieve the aforementioned purpose.

### **Issues**

Three different pathways have been identified to date by which LANL-origin contaminants pollute the ground and surface water resources used by the City and County to produce drinking water for their public water system customers. These include:

1. Buried transuranic and other radiological contaminants, such as plutonium, in the Rio Grande sediments deposited in the 1940s through the 1960s in the former river channel (slough) located immediately upstream of the BDD river diversion site;
2. Contaminants in the waters of the Rio Grande, including transuranics, other radiological contaminants, and other toxic wastes, from historical and current releases and waste discharges. Significant amounts of "legacy" contaminants reside in sediments in canyons on the Pajarito Plateau with watersheds that include LANL facilities, waste disposal areas, and historical and current outfalls. We understand that some of the canyon sediment beds and banks are not stable and that the contaminants are mobilized and transported to and down the Rio Grande and thence to the BDD diversion location with water is flowing from Los Alamos Canyon at its confluence with the Rio Grande; and
3. Contaminants that have flowed downward and reached the regional aquifer that underlies LANL and provides water to the Buckman well field.

### **The BDD Board requests the following LANL actions and programs**

The BDD Board voted unanimously at its October 4, 2007 meeting to request that DOE and LANL fund and implement six actions or specific programs to protect public drinking water supplies. Each of these six is generally stated and described below:

1. Stop migration of LANL contaminants to the Rio Grande and to groundwater. We request that LANL stop radioactive and toxic contaminants from flowing into the Rio Grande through the construction of additional sediment barrier and containment systems, improved waste treatment and disposal practices, stabilization and clean-up of sediment beds and banks in the Rio Grande tributary canyons that have received LANL waste discharges, and other appropriate management actions. We believe it is

essential that DOE and LANL stop the further migration to the environment from waste disposal areas of any of the vast mass of dangerous wastes that DOE and LANL have buried or are temporarily storing within LANL boundaries. We acknowledge the discussion by New Mexico Environment Department and LANL representatives at our October 4, 2007 meeting regarding the limits of what may be possible with respect to stopping migration via vadose zone and groundwater pathways of contaminants that have previously been discharged or that have escaped waste disposal or containment areas.

2. Properly monitor the transport of legacy contaminants in both the surface water and groundwater flow systems. We appreciate the review and recommendations that LANL sought and that the National Academy of Sciences provided through the newly published report entitled *Plans and Practices for Groundwater Protection at Los Alamos National Laboratory, Final Report (2007)* many of which address the need for improved monitoring. We understand LANL has taken the position that implementation of some of the recommendations is funding-contingent but we think it is essential that the entire set of recommendations be implemented, at once. We ask that you set an especially high priority on improvements in monitoring the transport of contaminants in the regional groundwater flow toward the Buckman well field and implementation of the recommendations addressing surface water and transport of contaminants from LANL property.
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 upstream of the BDD diversion site. Determine, through core sampling and analysis of sediment layers near areas where construction will take place, whether or not portions of the BDD diversion facilities as currently aligned will intersect areas with elevated concentrations of these contaminants. Help us determine if minor realignment of project facilities could avoid these discrete areas of contaminated slough sediments. Help us assure that construction worker or public exposure to these radionuclides and other contaminants will not exceed or violate any regulatory requirements.
4. Provide an early warning system so that the BDD can temporarily cease diversion of any water from the Rio Grande when the Rio Grande is expected to contain elevated levels of contaminants of LANL origin. This action has been suggested by LANL staff and has been publicly affirmed by NMED Secretary Curry.
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.

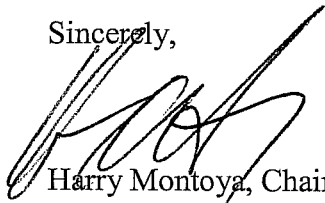
6. Provide funding for the BDD Board to retain independent peer review by qualified persons with regard to matters of LANL-origin contamination of the public drinking water resources of Santa Fe County and the City of Santa Fe.

BDD technical staff representing the BDD will continue to cooperate and work on these issues with NMED and LANL staff. BDD technical staff also will continue to meet with and discuss these issues with interest groups and concerned citizens.

Credibility of these efforts with the public water system customers that will be served by the BDD is very important to the BDD Board. We think that credibility will be fostered by conducting all monitoring and measurement programs with total public transparency extending from development of the monitoring plans to public availability of all the monitoring results. Review and oversight of these efforts including some independent peer review and quality assurance work by the NMED and BDD project resources also is important.

Thank you for your consideration of these requests. We look forward to receipt of your reply and discussion with you to reach agreement on DOE and LANL acceptance and commitment to implement these requests.

Sincerely,



Harry Montoya, Chair  
Buckman Direct Diversion Board

c: BDD Board Members  
City of Santa Fe Mayor, David Coss  
Paul Huber  
Danny Katzman  
New Mexico Environment Department Cabinet Secretary, Ron Curry  
BDD Project Manager, Rick Carpenter