

# the laboratory Connection

your community's link to information, opportunities, and people at Los Alamos National Laboratory

#### March 2004

word from the Executive Director of the Española Valley Chamber of Commerce

here is an old Spanish saying or dicho: "Una mano lava la otra mano." Translation: "One hand washes the other." This dicho aptly illustrates how the Los Alamos National Laboratory



aptly illustrates how the Los Alamos
National Laboratory and the Española Valley entwine. The Laboratory contributes significantly to

the economy of the Española Valley. The Española Valley, in turn, provides a labor force, housing, and other facilities to the Laboratory and its subcontractors. It would be difficult for the Laboratory and the Española Valley to survive without each other.

The Cerro Grande fire brought the Los Alamos National Laboratory. residents of Los Alamos/ White Rock, our area Indian Pueblos, Valley residents, and businesses so much closer. This near catastrophe made many realize how important we are to each other. Statistics show that the Española Valley has experienced an approximate 19 percent growth over the past three years, and one only has to sample the City's main thoroughfare to experience the everincreasing bustling activity. Such growth represents an enormous change in an area that in pre-Los Alamos days consisted mainly of farms, small ranches, and businesses.

The presence of LANL has helped contribute to the survival of the area's three cultures, Hispanic, Anglo,

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#### New Team Will Be Lab Liaison to Small Business

With the mission to promote the interests of regional small businesses to Laboratory personnel and internal operatives by encouraging the use of small business products and services, LANL has established a Laboratory Small Business Advocacy (LSBA) group.

Five objectives have been developed as a result of an assessment of the regional small business environment, the outcome of the Small Business Taskforce Report, the Manzullo House Committee report Small Business Practices, the 2002–2003 Community Leader Survey, and input from Laboratory Management.

The objectives are: Communications, Small Business Advocacy, Supplier Development, Outreach, and Regional Procurement. Each objective is supported by a series of projects that have been selected and prioritized to address the issues identified in the assessment. A team member and team backup person have been assigned to administer each project and assist in the development of metrics that will be used to rate progress in accordance with the Group's Strategic Plan.

The group will be situated under the Lab's Communications and External Relations (CER) Division and within the division's Community Relations Office (CRO), which is

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The LSBA Team: L to R: Carlos Chacon, Vangie Trujillo, Janelle Vigil-Maestas, and Tim Martinez.

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and Indian. Many of our residents that left the Valley's farms and Pueblos to seek employment out of the area are now returning to find employment opportunities in Los Alamos. The Valley's Northern New Mexico Community College has been a big asset in preparing students for skilled, higher paying

jobs in Los Alamos and other area businesses. The area's standard of living has risen, due in part to jobs generated by LANL and its subcontractors.

Traffic to and from Los Alamos is a never-ending phenomenon. Much of this increased traffic has been

attributed to the Valley's growth, workers commuting to and from Los Alamos, and Los Alamos/White Rock residents increasingly shopping in the Valley. The Los Alamos National Laboratory and the Española Valley have truly formed a community partnership.

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located in downtown Los Alamos and has a satellite office in Española. The locations afford the LSBA Group the opportunity to operate "where the action is" while allowing small businesses greater and more immediate access to those who will promote their interests.

Because this program will rely primarily on a peopleto-people effort, we are using this issue to introduce the people who will be your advocates to ensure that the goods and services produced by your regional small businesses will get a fair and equitable promotion within LANL.

These are the individual team members, their assignments, and contact information. Don't be shy ~ it's a two-way street. They will welcome your inquiries, comments, and suggestions.



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#### Laboratory Small **Business Advocacy Locations**

Community Relations Office 1619 Central Avenue P.O. Box 1663, MS A117 Los Alamos, NM 87545 Phone: (505) 665-4400 Fax: (505) 665-4411

Española Outreach Center Northern New Mexico Community College 921 Paseo de Onate Espanola, NM 87532 Phone: (505) 753-3682 Fax: (505) 7534679

(Thursdays and By Appointment with Tim Martinez (505) 667-2390) Santa Fe County Chamber of Commerce Santa Fe Premium Outlet Mall

8380 Cerrillos Road, Suite 302

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Carlos Chacon

Los Alamos, Sandoval

(505) 665-4284

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#### Lab Technical Assistance Program Supports Regional Needs

When the Rio Arriba County Fair and Rodeo rolls around in July, participants and spectators will flock to a brand new Rural Events Center on the road to El Rito. The center, consisting of an office building, a multipurpose exhibit hall and arena, was planned, designed and built with grant writing and other assistance from Los Alamos National Laboratory.

More than 150 people, including past and present county officials, attended the opening of the center on January 30. Rio Arriba County Manager Lorenzo Valdez said the project will enhance activities that are critical to sustaining rural communities

"The Rural Events Center will be focused primarily on the needs of traditional agriculture and the rural economic activities of Rio Arriba County," Valdez said. "These will include water rights, water economics, irrigated land protection, environmental matters, crop and livestock enhancements, new science and technology, marketing, business training, and youth activities. "

The concept of a centrally-located facility dates back more than a decade and the more than \$1 million project has been in development since 1999. Since the project's earliest stages, the Lab and Lab employees have played key roles. Laboratory grant writing assistance helped procure \$100,000 for the original feasibility study, and a subsequent \$525,000 USDA/CDBG Grant for construction. In addition, the Lab's Community Relations Office Outreach Team Leader, Mick Trujillo, took a per-

sonal interest in the project. Trujillo is an Abiquiu rancher whose family has participated in 4-H and FFA activities for generations. "Mick Trujillo became very interested in the mission the county undertook with this project," Valdez said. "As a local resident, he has had a keen interest in the development of the arena and conthe activities center, which boasts facilities including showers, lockers and changing room and a commercial-type kitchen. Future plans for the center include a stadium for rodeos and horse shows.

County extension service head Roberta Rios and her staff have moved into the new office build-



Assisting with the ribbon cutting at the new Rio Arriba County Rural Events Center are, left to right, County Commissioners Moises Morales, Andrew Chavez, and Elias Coriz; former County Commissioner, Alfredo Montoya; County Extension Services head, Roberta Rios; National 4-H Treasurer Alfredo Montoya; and 4-H staffer Maria Elena Jaramillo; and County Manager, Lorenzo Valdez.

sulted with us in designing it and acquiring the equipment."

A member of the Rio Arriba County Fair Board of Directors, Trujillo said he was an early advocate of a new location for the Fairgrounds, pointing out that the old location in Arroyo Seco is actually in Santa Fe County. He is particularly enthusiastic about ing, and she is optimistic about the possibilities the center offers.

"It has given us more room to conduct the educational programs we're chartered to do," she said. "As part of the New Mexico State University's College of Agricultural Economics, Cooperative Extension Services has an office in every county to bring research-based

#### **Education Programs Serve Valley Students And Teachers**

Española Middle School teacher Dolores Salazar had only been teaching in a general education classroom for one year when she was asked to join the Math and Science Academy. Now in her fourth year in the program, she counts herself lucky that she discovered it so early in her teaching career.

"I was very naïve about education and how complex it really is," she said recently. "I thought content and knowledge were enough but boy, was I wrong."

The Math and Science Academy (MSA), started in 2000 by the Northern New Mexico Council on Excellence in Education, focuses on standards-based education using the most recent research-based concepts and instructional strategies. Heavy emphasis

is placed on assessment and data analysis. Evaluators for the program have found that student achievement has increased steadily for students of the teachers in the program.

"MSA has taught me how to honestly assess student learning on paper, which really validates you as a teacher," Salazar said. "It has also taught me how to take the benchmarks and standards, along with the curriculum, and put the pieces together. Every MSA teacher has planned out their entire school year, incorporating the concepts students will need to know to do well on the standardized tests."

Salazar teaches social studies and gives as an example the concept of culture. "Our

benchmarks and standards require us to teach students to analyze culture," she explained. "So what is important to culture? It's a belief system, religion, food, living patterns, and so on. We use New Mexico history to understand culture."

Cassandra Olivas is in her first year in the Math and Science Academy. The seventh-grader, whose mother teaches kindergarten in the district, enjoys math and social studies and aspires to be a radiologist. Cassandra said she particularly appreciates getting more individual attention from her teachers, who communicate with one another about her progress. She added that her friends who are in the MSA program also like how it works.

"They just want us to focus on learning and we respect that, "she said. "They seem to enjoy teaching us."

"The teachers are cheerful because they're less stressed out," Salazar said. "Their entire school year is all mapped out."

Salazar said collaborations are a big part of MSA. The Española Middle School team meets once a week after school, and three times a year they meet with their colleagues in the program from Chama, Mora, and Pojoaque.



Española Middle School social studies teacher Dolores Salazar helps 7th grader Cassandra Olivas locate South American countries on the classroom map. Both are participants in the Math and Science Academy, now in its fourth year at Española Middle School.

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"You'll see a lot of consistency from one classroom to another," Salazar said.
"Students like Cassandra can really excel in an atmosphere like this, and the more average students also benefit enormously."

Salazar said that even the school's nonparticipating teachers appreciate the positive environment for learning that the program has created.

"Some teachers can't participate because they hold jobs after school, or they coach or referee sports," she said. "But everyone fits in somewhere."

This year there are more than 50 MSA teachers, including elementary teachers, at nine schools in four districts. The program consists of intensive training during a three-week summer institute, weekly sitebased meetings after school, cognitive coaching six times a year, development of individual reflective portfolios, and weekly online discussions with the whole MSA community. The teachers commit to 200 hours over their contract every year for a minimum of three years.

The Laboratory's prime contractors are also committed to promoting economic development, workforce development, and education in the region. In January, KSL Services, the Lab's facilities and site-support-services contract company, presented a check for \$200,000 to the Math and Science Academy. Ed

Burckle, director of Economic Development and Program Integration for KSL, made the presentation at a ceremony at Española Middle School attended by Española school board members and Lab officials, including Director G. Peter Nanos.

At the ceremony, Nanos told students, teachers, and school administrators that he credits his sixth-grade science teacher for inspiring him to excel in school.

"I've never lost my drive for science since," he said.

Another Lab subcontractor, Technology Integration Group (TIG), recently donated 20 workstations to the Española schools through their TIG Computers for Kids program. After being "built" by a team of Albuquerque high school students, the computers were installed in the libraries of the high school, both middle schools, and a number of elementary schools in the district by the schools' technology director, Ernest Garcia.

"We distributed them according to the number of students in the schools," Garcia said. "And we put them in libraries instead of classrooms so they can be used by more students."

Over the past four years, TIG's Computers for Kids program has donated nearly 400 PCs and color monitors to schools and students.

programs to the public. These include agriculture, home economics, and youth and community development programs. We can now conduct all of our teaching opportunities and workshops in a

central location in the county."

Rio Arriba County has also developed a distance learning service capability to deliver educational, web-based seminars and programs to area families. The county has acquired computers that are currently in storage while technical advisors explore connectivity options.

"We have great visions for the use of this center," Rios said.

The Lab's involvement with the Rural Events Center project is just one example of contributions made through the Community Technical Assistance (CTA) program initiated in 2000 as a pilot grant-writing project with the approval of the Department of Energy. Since that time, more than \$2 million in grants have been obtained for a variety of programs, including the Math and Science Academy, the Northern New Mexico Supplier Alliance, and the City of Española's Youth Center Project (see related story on page 6).

The Lab recently subcontracted the program to the Regional Development Corporation (RDC), which will provide the regional service with an emphasis on business infrastructure development support. The RDC plans to match identified needs for economic development with requests for grant writing assistance within the regional community.

#### Regional Partners Collaborate on Youth Center Project

Los Alamos National Laboratory, the City of Española, the Española Valley Schools and KSL Services are joining together to provide more opportunities and fun for youth in our region. The Youth Center, which supporters hope will open its doors soon, is a broad collaboration between a number of agencies dating back several years.

Española City Councilor J. Patrick Trujillo played a pivotal role in the designation of the transportable buildings, which the Lab salvaged and donated, for the youth center.

Trujillo said that community involvement in this project is strong, and its advocates include the City of Española, the County, the business community, the schools, Juvenile Probation, and community activists.

"The City Councilors met and told everyone involved that they needed to develop the programs to use this new facility," he said. "We're working with the Juvenile Justice Board and everyone to develop positive resources for youth to avoid drugs."

The Juvenile Justice Board got involved because many groups were doing good things but they were overlapping, Trujillo said.

"The Juvenile Justice Board will focus and amplify the capability of doing great work," Trujillo said. "So now there's less overlap and everyone can still help."

Trujillo also said that a Youth Center program is being developed with the school system to provide the curriculum necessary to help kids who are suspended continue to learn at the Youth Center so they don't fall too far behind.

"If a student is suspended for a week, they can continue to learn at the center," Trujillo said. "We're working with all of the area schools and the community college to develop these programs to catch the students and help them stay current."

Trujillo also said that the center will also be used as an adult learn-

ing facility from 8 a.m. to 3 p.m. Technology Integration Group (TIG) coordinators have been asked to identify computers that could be purchased at a reduced cost or acquired at no cost for this program.

The Laboratory also committed to have a staff member serve on the Youth Center Committee and provide project development.

Olivia Martinez, from the Lab's Community Relations Office, serves on the Youth Center Committee.

"This is a long overdue facility in Española. The Laboratory will provide technical assistance and volunteers, once the programs are in place," Martinez said. "The area schools who are participating include McCurdy, Victory Faith, and the Northern New Mexico Community College."



The Española Youth Center will provide tutors, teachers, and mentors to area youth. KSL Services' planned completion date for the Center is late summer of 2004.

"I touched base with the 'Let's Read' program folks and hopefully, they'll provide reading tutors for both adults and kids who don't know how to read," Trujillo said. "Then from 3 p.m. to 11 p.m. we'll have tutors, mentors and teachers available for everyone on a volunteer basis. We already have volunteers."

The Youth Center Committee is researching a number of possibilities to help the Youth Center secure sustainable funding. The Committee is also searching for a Youth Center director.

"Local citizens have said that they would like the center to offer

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programs that serve not only students on probation, but also have programs that encourage students to do better in math and science and to pursue a college education," Martinez said.

When KSL became the Lab's facilities and site-support-services contractor, its management team offered to renovate the donated buildings as part of its community development commitment.

"We wanted to start in early 2003 but we could not secure a construction permit from the State until late last year," said Ed Dalene, Director of Project Management for KSL. "We will finish the electrical work in another month and once that happens, we'll be able to do the structural work on the inside. We're hoping to have everything completed by this summer."

The Youth Center is just one of the outreach initiatives to which KSL has committed, Dalene said. The company also focuses on working with small businesses and a work skills retraining program called "Otra Vez."

"The job skills retraining is about an \$800,000 project," Dalene said. "It helps released prisoners learn new skills to get them to contribute positively in their communities and in the workforce."

Dalene said that KSL would begin working on the "Otra Vez" program as soon as they finish the Youth Center. Many KSL managers are active members of various Española community boards and other non-profit organizations.

"We want to concentrate our outreach commitment to the Española

## Water Research Office Will Promote Scientific Collaborations

The recent drought conditions across the Southwest have focused attention on the need to develop and communicate a scientific understanding of water resources. There are significant gaps in our basic scientific understanding of how much groundwater is available, the chemical quality of the water, and if it can be economically developed for use.

Many federal and state agencies, local governments, and Pueblos have undertaken work in the areas of drought, hydrology and geology studies, water supply, wastewater collection and treatment, water quality, and water allocation in the Española Basin in Northern New Mexico. The Lab's Groundwater Protection Program funded development of a model of the Española Basin Aquifer, which provides groundwater for the Los Alamos/Española/Santa Fe region. The Lab's high-performance computing facilities and advanced computer codes can create sophisticated 3-D models that simulate flow paths and the effects of pumping on the aquifer.

Elizabeth Keating, a Lab hydrologist working on the project, recently gave a presentation on the program to the City of Española's Mayor and Public Works Committee, comprised of city council members.

The Laboratory believes that what is needed now is a comprehensive research and technical assistance office that draws together the information from all regional efforts, and promotes the sharing of information and collaboration on research efforts and technical assistance.

The Los Alamos National Laboratory's Water Research Technical Assistance Office will be established "off the Hill" in a Northern New Mexico community to promote scientific collaborations on water research and the sharing of water resources data and information. The office will also assist local communities and the public with water resources questions and problems, provide educational materials and guest speakers related to water research, and assist local communities with water-related economic development. The program will assist small business in technology development, evaluation, and commercialization.

The new office will coordinate Laboratory water-related research and technical assistance with local governments in the region and provide technical support to the Northern New Mexico Water Quality Project.

Charlie Nylander of the Lab's Groundwater Protection Program will be the director of the new office.

"We hope that our efforts will fill the scientific information gaps to enable better water resource decisions," Nylander said. "We also hope to strengthen the partnerships and collaborations in the Española Basin."



#### Volunteer Judges Encourage Future Scientists

Lab technician Len Valerio questions II<sup>th</sup> grader Miguel Gallegos about his project at the recent McCurdy School science fair. Gallegos' project was on glossaphobia, the fear of public speaking. He measured the blood pressure of subjects in different age groups before and after giving public presentations. Valerio has been a volunteer for more than 23 years. He puts in more than 1,000 hours of volunteer time annually and specializes in science fairs.



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