

W-CAP

Junior Community Problem Solving Team
La Union Elementary School
La Union, New Mexico

AREA OF CONCERN:

In the town of La Union, New Mexico, we, the FPSP students at La Union Elementary School, noticed that our community was concerned about water pollution. Specifically, they are concerned about the level of arsenic in the water supply. There have been newspaper articles and newscasts about the amount of arsenic in the water supply in our community. The articles say that the amount of arsenic is very low, but nobody wants it to get any higher.

We, the CmPS team of La Union Elementary decided that **Water—Conservation and Pollution** was a concern in the community that we could do something about. We want to make a difference in our community. We want our community to be more aware of all the problems with the water in the community. We brainstormed challenges about water in our community. Our community is an agricultural (farming) community.

La Union, New Mexico is located in Dona Ana County in Southern New Mexico. It is an agricultural community. La Union Elementary School is in the Gadsden Independent School District. The socio-economic status in the district is quite low. Approximately 85% of the families are classified as low income or poverty status. Every elementary school and middle school in the district have a Title I school-wide designation. At La Union Elementary School, all students are eligible for a free lunch program.

The La Union student population is over 85% Hispanic. Approximately one-third of the students are Spanish dominant when they enroll. At La Union Elementary, 40% of the students come from homes with a primary language other than English, and are unable to speak, read, write, or understand the English language at levels comparable to their grade-level English proficient peers. They are ELL students (English Language Learners) and come from homes in which the language spoken is not English.

After brainstorming, we began researching water conservation and pollution. Since we are a farming community, we want to do something to make our community members aware of what the problems are in our community and what each one can do to alleviate the problems. When we say “each member of our community”, we mean at all levels—children as well as adults.

We do not believe the farming is the big problem for our water supply. We know that the farmers are very aware of what chemicals they utilize will do to the ground water supply. They are also very concerned about the water problems in our area. We invited the farmers to come to our school to talk to our CmPS students to help them with their research.

CHALLENGES:

At first, we, the students and coaches, began brainstorming and listing all challenges facing our community. These challenges included: graffiti, cleaning up trash, taking care of stray animals, planting trees at our school, cleaning up our park, tutoring, cleaning up our water supply, providing poor people with food and clothing, Thanksgiving food drive, bullies and self-defense classes, saving electricity, saving resources, air pollution, and burning weeds. We began to focus on things that we could actually do something about, that would be meaningful to our community. We narrowed down our focus areas.

Then, we had an evening meeting with the parents and students in our CmPS group. We again brainstormed and listed the challenges. They ended up being the same concerns we had already listed. We narrowed down our concerns to water. What could we do about our water supply? The parents and students began to talk about the articles in the newspaper and on television about the arsenic in the water in La Union. We decided that we would work on WATER. This was going to be our project—how to conserve it and stop water pollution. This was going to be our Area of Concern!

We began researching water conservation and water pollution. At first, the students didn't find anything that would really help them. But, they continued. They got on the internet, went to the library, wrote to individuals they knew who might come to school to give them more information, invited speakers to come to class, and asked their parents for more contact ideas. It was beginning to come together, and the students were really getting excited about their project. They were excited about their research results and began to plan what to do next.

UNDERLYING PROBLEM:

At La Union Elementary school, we decided to work on Water Conservation and Pollution (WCAP). Our underlying problem is:

Because we know that water is necessary for survival, in what ways might we help educate our students and community members to conserve water and decrease pollution of our water in 2003-04 and beyond, in order to protect one of our natural resources (water)?

ALTERNATE SOLUTIONS:

1. We, the La Union Community Problem Solving (CmPS) team, will visit the water processing plants to learn more about water pollution in order to inform others.
2. We, the La Union CmPS team, will invite resource people to our class to discuss any problems with water conservation or pollution in order to learn how we can help conserve and stop pollution of our water.
3. We, the La Union CmPS team, will visit our State Legislature to discuss our concerns about water conservation and pollution in order to get help on conservation and how to stop pollution of our water.
4. We, the La Union CmPS team, will prepare and display posters at various businesses in the community to make our community members aware of what they can do to help with water conservation.
5. We, the La Union CmPS team, will make a presentation to the community, school board, legislature (if possible), and to other classes in school about water pollution and water conservation.
6. We, the La Union CmPS team, will develop a Powerpoint presentation for students and parents of our school to let them know what they can do conserve water and to stop water pollution.

7. We, the La Union CmPS team, will research water conservation and water pollution in order to help our community.
8. We, the La Union CmPS team, will find sources to donate trees for our school yard to provide shade for our students.
9. We, the La Union CmPS team, will present skits and plays to younger students at our school and other schools in the district to help them learn about water conservation and pollution.
10. Our parents will help us prepare banners about water pollution and conservation to display at other locations around the community.
11. The parents and school staff will help prepare booklets or pamphlets to present at the meetings and at all functions associated with our water project in order to get more community members involved.
12. Educators from New Mexico State University will give demonstrations to our students about water conservation and pollution to help our team become more knowledgeable about water problems in our area of the state.
13. We, the La Union CmPS team, will develop a questionnaire to present to students about water conservation and water pollution to gain information on how to help students understand the importance of saving our water supply for future use.

CRITERIA:

1. Which solution will have the greatest positive impact in our community to conserve water and stop pollution in order to protect our natural resource—water?
2. Which solution will best present our concerns to the community in order to have them work with us to help protect our water supply?
3. Which solution will best encourage students to be life-long water conservationists?
4. Which solution will be the most positive way to educate our students and community members about conserving and not polluting water?
5. Which solution will best prepare our students of La Union to become active participants in conserving water at home, school, and in the community?

INTENDED PLAN OF ACTION:

After looking at our alternative solutions, we have decided to combine several of our ideas for our plan of action. They all show good ideas, but we realize that we cannot accomplish all of them at once. We will begin with a few of them, and then continue to work on this project for next year also. Later, we may find that we can accomplish more objectives than we thought we possibly could.

We have decided to begin with research on water—ground water, water table, farming use of water in fields, water pollution, the arsenic in our water system, and possible actions to take at home and at school to conserve water.

We will then make posters to display throughout our community and school to make our community members aware of the importance of water conservation and to inform students in our school what they can do to conserve water. We will discuss our concerns with each business person that we contact about displaying our posters. As we are discussing water conservation, we will also discuss water pollution and what we can do about it. They are so closely related.

We will prepare a Powerpoint presentation to inform students and community members how they can conserve water and the importance of preventing water pollution.

We will present this Powerpoint presentation in our classroom, at a Gadsden ISD School Board Meeting, and at a Community Meeting one evening in May. We would like to present it to the New Mexico Legislature, but they are no longer in session. Maybe we will do this at their next session since they are encouraging us to keep up the good work that we have started.

This project not only helps the CmPS team members work on a project that will benefit the community, it also will help them to be concerned and active in other projects that will benefit the community they live in later in their lives. It also helps them with their reading, writing, and communication skills that they need to develop to a greater level throughout their lives. Their parents and other family members are excited that they are becoming involved in this project, and hope that they will continue this process throughout their lives.

OUR TIME LINE:

- September-November: Brainstorming, research, decide on a project, and
(2003) begin researching grants for possible funds for funds to help with the project.
- October (2003): Make final decision on the project and begin initial planning.
- November-December: Begin contacting various individuals (resource
(2003) people) to present to our CmPS team at school.
- December (2003): Evaluate the project to this point. Make necessary changes to continue the program successfully.
- January-May (2004): Continue with our plans.
We will also visit the New Mexico State Legislature while they are in session in February.
- April (2004) The CmPS team will present their Community Problem Solving Project to the Gadsden School Board.
- March-May (2004) The CmPS team will present their project to various classrooms in the school.
- May (2004) The CmPS team will present their project to the community at a community meeting in May, 2004.

TEAM ORGANIZATION:

Our team members divided the responsibilities for our project. We changed committee members several times. Basically, everyone was involved in all the committees, but some were put in charge of the committee:

Public Relations Committee: Responsible to Contact resource people to speak to our team.

Kelly Acosta, Mary Cruz Anaya, Brittany Okleberry, Alyssa Karl, and Yvette Molina

Powerpoint Committee: Responsible for completion of presentation.

Fernie Urquidi, Micheal Robinson, Richard Bobadilla

Calendar Committee: Responsible for keeping everyone on task to assure we stay on time with our tasks.

Yvette Molina, Brittany Okleberry, Richard Bobadilla

Translation Committee: Translate material to Spanish for members of the community who speak only Spanish (with

parent/adult assistance).

Mary Cruz Anaya, Yvette Molina, Fernie Urquidi,
Brittany Okelberry, and Richard Bobadilla

Fundraising Committee: Look for grants or other fundraising activities
Michael Robinson, Alyssa Karl, Kelly Acosta

CONTACTS AND RESOURCE PEOPLE:

These are the **key people** we used as our resource people:

Diane Arrigucci—Federal Park Service, Water Treatment Plant Manager, Mt. Rainier, Washington—presentation on purification of water.

Diane Ecklund Perez—Water Conservation Education Specialist—gave a presentation on activities to help youngsters conserve water.

Mr. Dennis McQuillan—Liquid Waste Manager of New Mexico Environment Department in Santa Fe. Gave a presentation on groundwater pollution and gave us additional contacts in Dona Ana County to help with our research.

Michael Montoya—Dona Ana County Environment—Liquid Waste Specialist provided our team with research materials and models for our presentation.

Ken Smith—Dona Ana County Environment—presentation on water and helped with our research.

Dosi Alvarez—local farmer—presentation on preserving the water supply.

Coca-Cola Company—has worked with us to provide an alternative to the drinking water at school. Two machines with water and juice were put into school for the students.

Fred Acosta—local farmer—presentation on preserving the water supply.

All of our parents—accompanied students on trips and assisted in classroom. Helped display posters and spread the word about our project.

ACCOMPLISHMENTS:

We have displayed our posters in businesses around the community and have discussed our concerns and plans with the community members present at the different businesses. They were all very pleased that we are working on a project for the community. They encourage us, and give us more names as contact people and resource people. It is very rewarding to know that community members are positive about our project.

We will continue our research on water conservation and pollution on the internet, in the newspapers, magazines, and from guest speakers. During our research, we found out that the water supply in our own community (La Union) has arsenic in it. This has made us more aware of our own water supply. We are in the process of gathering more information about this. We have really begun to focus on this aspect of our research for now.

We traveled to the State Legislature to talk to a Senator and a Representative to bring our concerns to the Legislature. (This was a two day trip since our State Capital is in Santa Fe—280 miles north of La Union.) We spent the day at the Senate and House of Representatives. We were able to speak with Senator Cynthia Nava and Representative Andrew Nunez. Senator Nava arranged for Mr. Dennis McQuillan, Liquid Waste Manager of New Mexico Environment Department in Santa Fe, to give us a presentation on ground water pollution. The students were very eager to bring this information back

to the community. Mr. McQuillan gave us contacts in the Dona Ana County to help with our research and presentations.

Representative Nunez gave us a video tape to use in our presentation. The tape is "Rolling Rivers". It is a six and a half minute tape prepared by the NM Association of Conservation Districts. It is very useful for our presentations.

Senator Nava also arranged to get us a copy of a newly developed video to help us gain more information about the water problems in the state and what we can do to help. The tape is "Water Warning, It's Not Just the Drought". It is a very detailed video about our diminishing water—in our rivers, reservoir, and aquifers.

We have begun working on our Powerpoint presentation. The students are really excited about this presentation. It is hard to narrow down all of the research to a short presentation for the students and community members. We are also working on preparing various activities to help youngsters conserve water at home. They will take these activities home to discuss with their parents. We are also preparing a questionnaire to send home with these students to find out if our presentations and activities have helped their families begin to conserve water.

TEAM EVALUATION:

We have done self-evaluations of our project regularly. We want it to be a success. We need to continually find new ways to involve more students and members of the community in our project. We realize that we have just begun a very large and important project. At first, we thought it was going to be very easy to get others involved. However, it is difficult for us to get more adults involved in this project. They see a need for the ideas, but they feel it is not something they can really do anything about. We have to continue to work to convince everyone to get involved in some way.

As the speakers present to our CmPS team, we are getting more interested in ways that we really didn't understand before we began the project. Taking part in the presentation on groundwater pollution, we realize it is very important that we help our community members realize how important it is to not pollute the water and ground. If they put oil or other chemicals in the soil, it will eventually affect our water supply. It will get into the groundwater eventually.

We have just begun to implement our underlying problem. We are continuing to work toward our goals. We hope to continue improving our project over the next few years. This is not just a one-year project, it will continue next year. We have just begun!

TO BE CONTINUED:

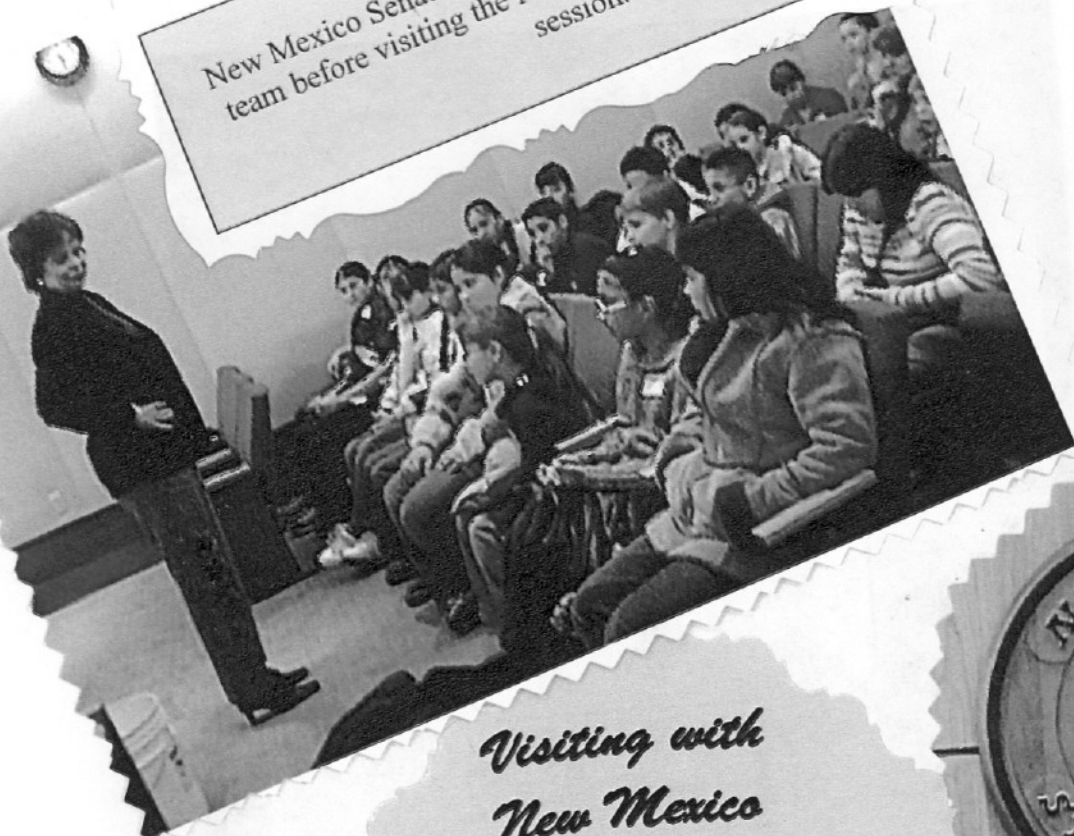
We will continue with our presentations—anywhere we can. We will contact service organizations in the community to volunteer to present to their organizations. When we make our presentations, people give us other contact people to talk to about our project. We will expand to include more members of the community. It is important for our team to continue this project. We are learning so much from the community members, and their ideas are very important to us.

We expect our students to become involved in some way with the community in the years to come. They have started at an early age, and with our support and their parents' support, they will continue to be involved.

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ADDENDUM

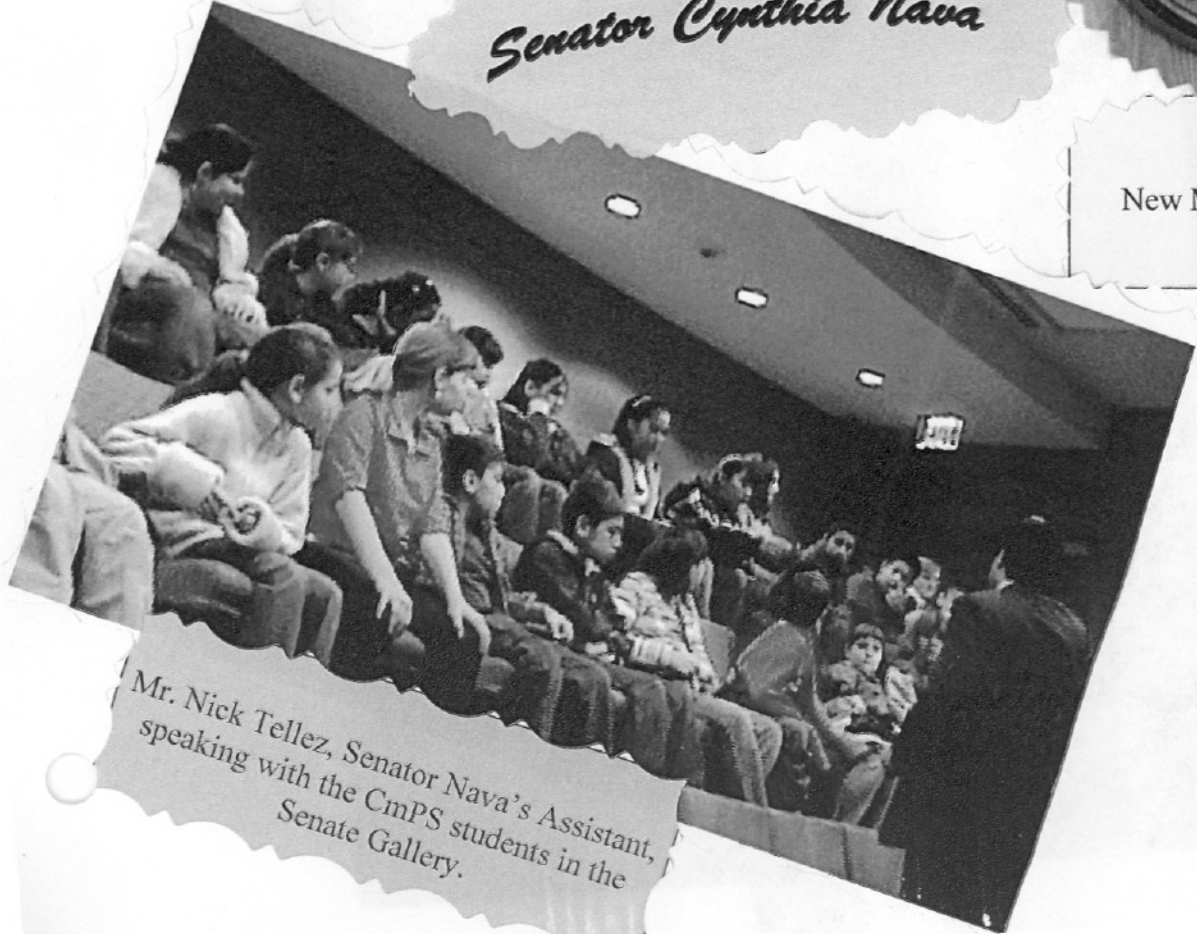
New Mexico Senator Cynthia Nava speaking to the CmPS team before visiting the New Mexico State Legislature in session.



*Visiting with
New Mexico
Senator Cynthia Nava*



Seal of
New Mexico State Senate

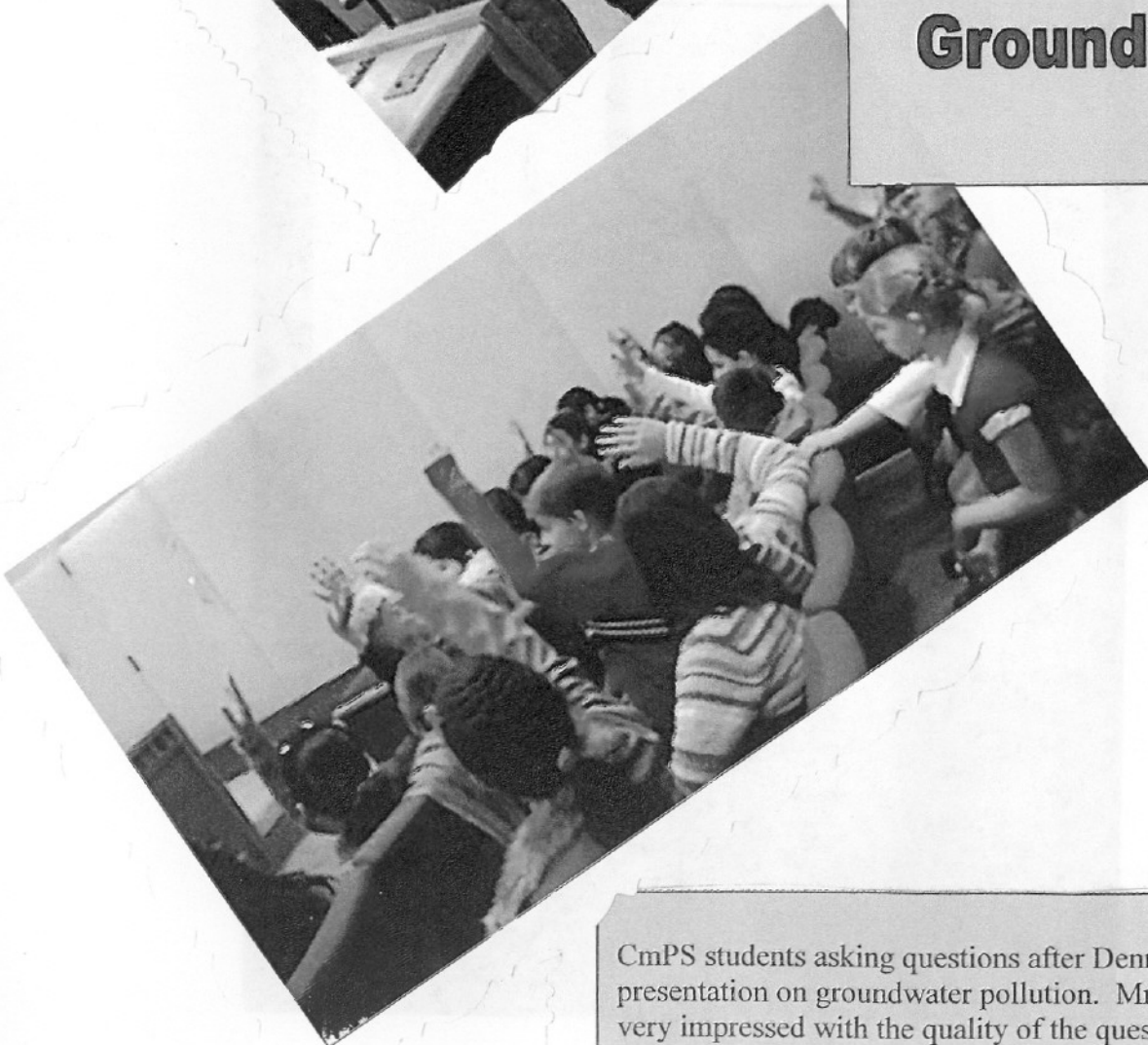


Mr. Nick Tellez, Senator Nava's Assistant, speaking with the CmPS students in the Senate Gallery.

Mr. Dennis McQuillan leading discussion on groundwater pollution.



Learning About Groundwater



CmPS students asking questions after Dennis McQuillan's presentation on groundwater pollution. Mr. McQuillan was very impressed with the quality of the questions asked by the students.

Research

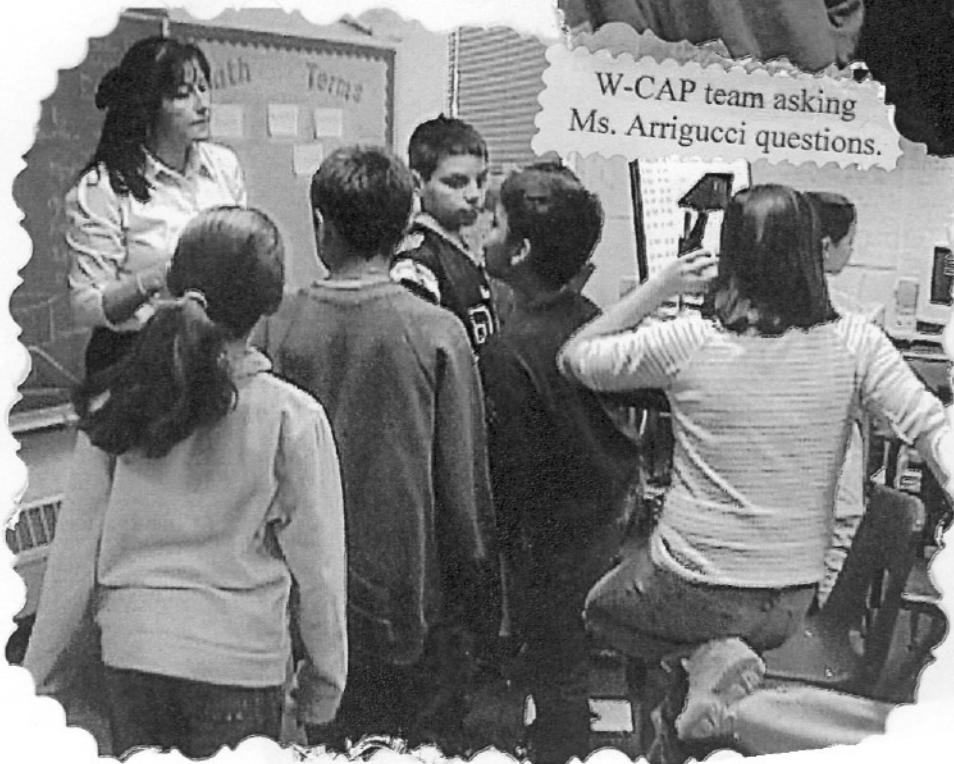
Ms. Diane Arrigucci presenting her work with water purification.



W-CAP team with Diane Arrigucci

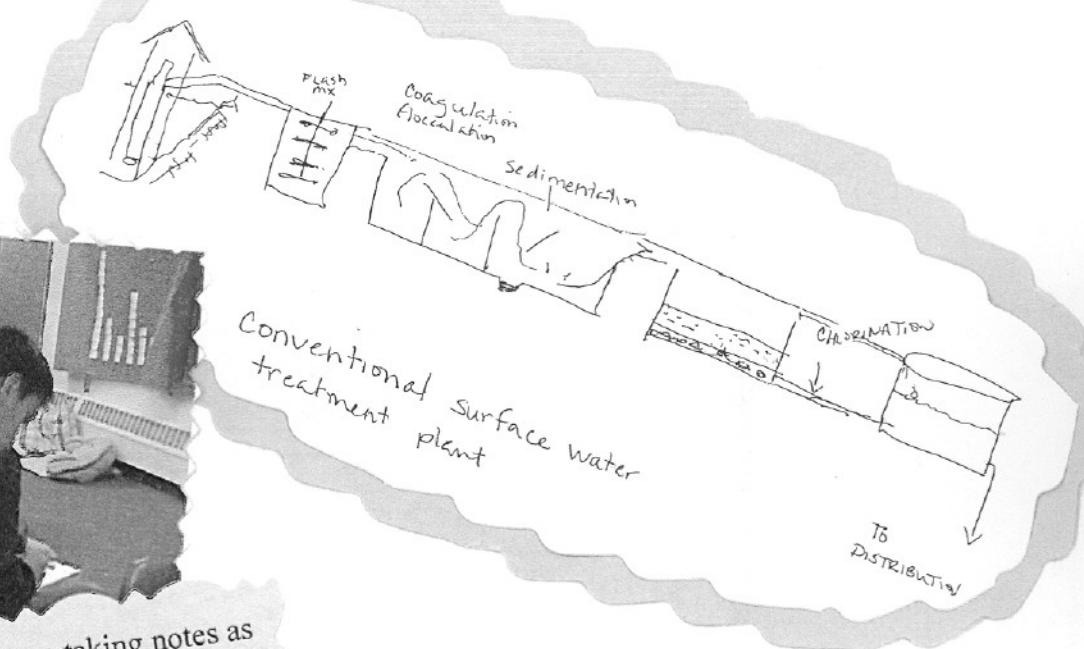


W-CAP team asking Ms. Arrigucci questions.



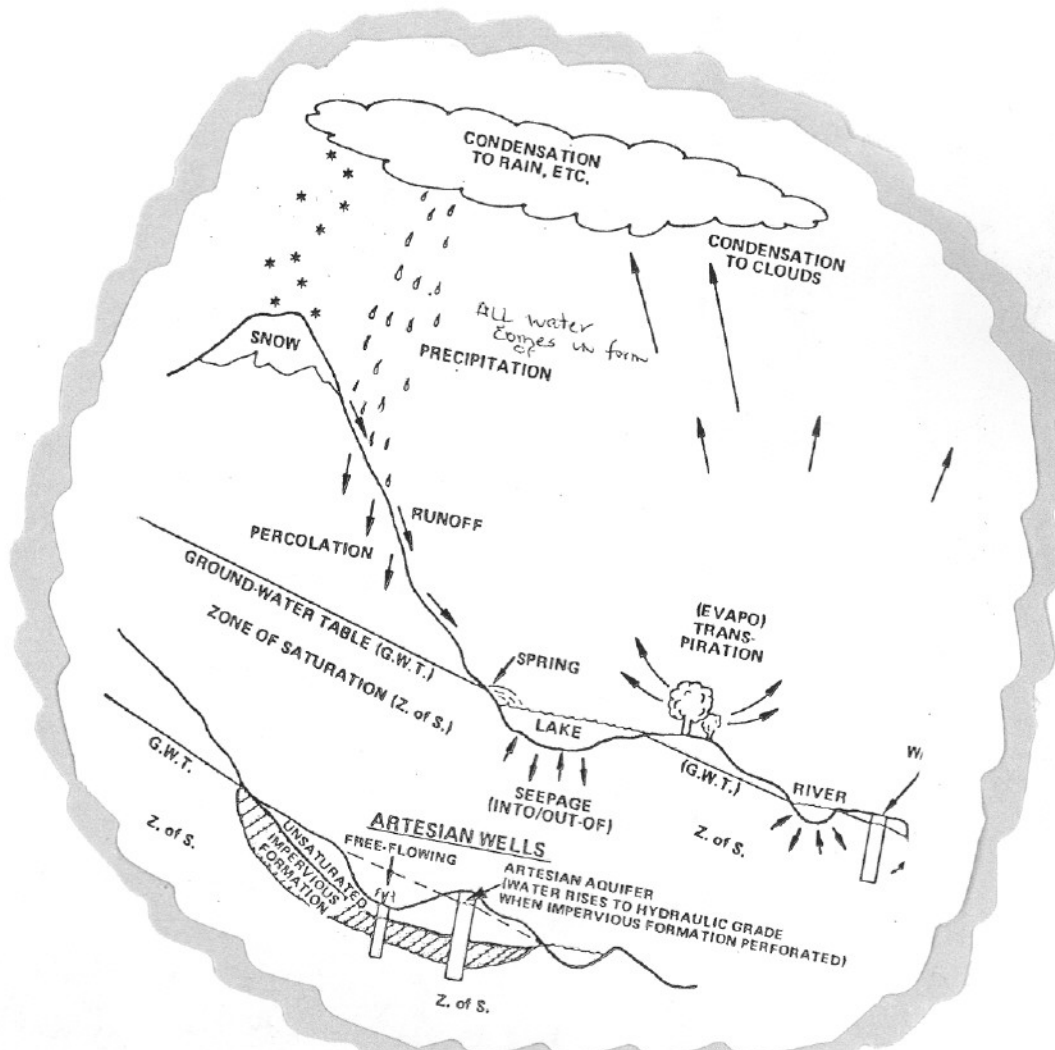


W-CAP team taking notes as Ms. Arrigucci gives presentation.



Conventional surface water treatment plant

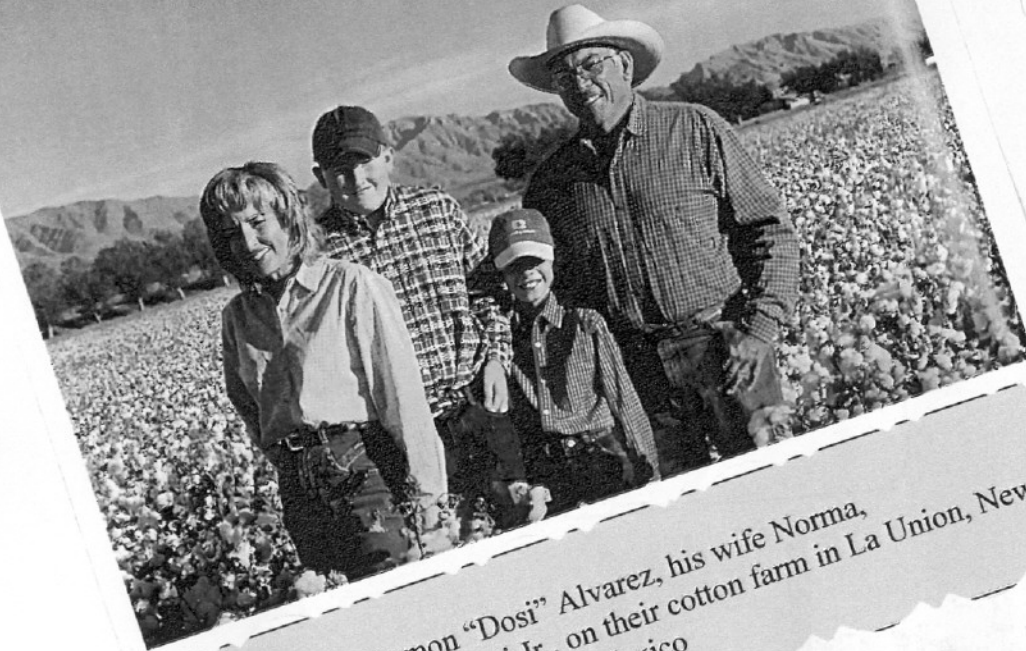
Taking Notes



ORGANIC FARMERS

textile mills and Patagonia

by jill vlahos



Ramon "Dosi" Alvarez, his wife Norma, and sons, Seth and Dosi Jr., on their cotton farm in La Union, New Mexico

Mr. Alvarez began growing pima cotton organically on his farm eleven years ago. With the birth of his first son, he began to worry about the volume of pesticides on the ground. This picture and an article appeared in the "Patagonia Environmental Programs Magazine" in Spring, 2004.

FARMING

HOW MORE PRODUCTIVE
FARMING IS LEADING TO MORE
PRODUCTIVE WILDLIFE HABITATS.



Kelly Acosta
Grade 4

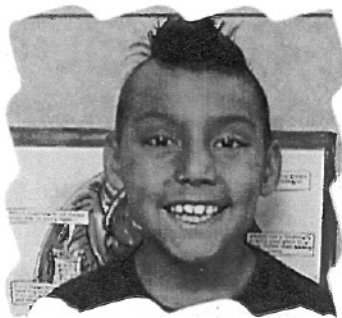
W-CAP

Water—Conservation and Pollution



Marycruz Anaya
Grade 4

CmPS Team



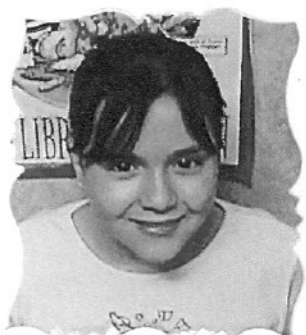
Richard Bobadilla
Grade 5



Alyssa Karl
Grade 4



Yvette Molina
Grade 6



Brittany Okelberry
Grade 5



Michael Robinson



Fernando Urquidi
Grade 5