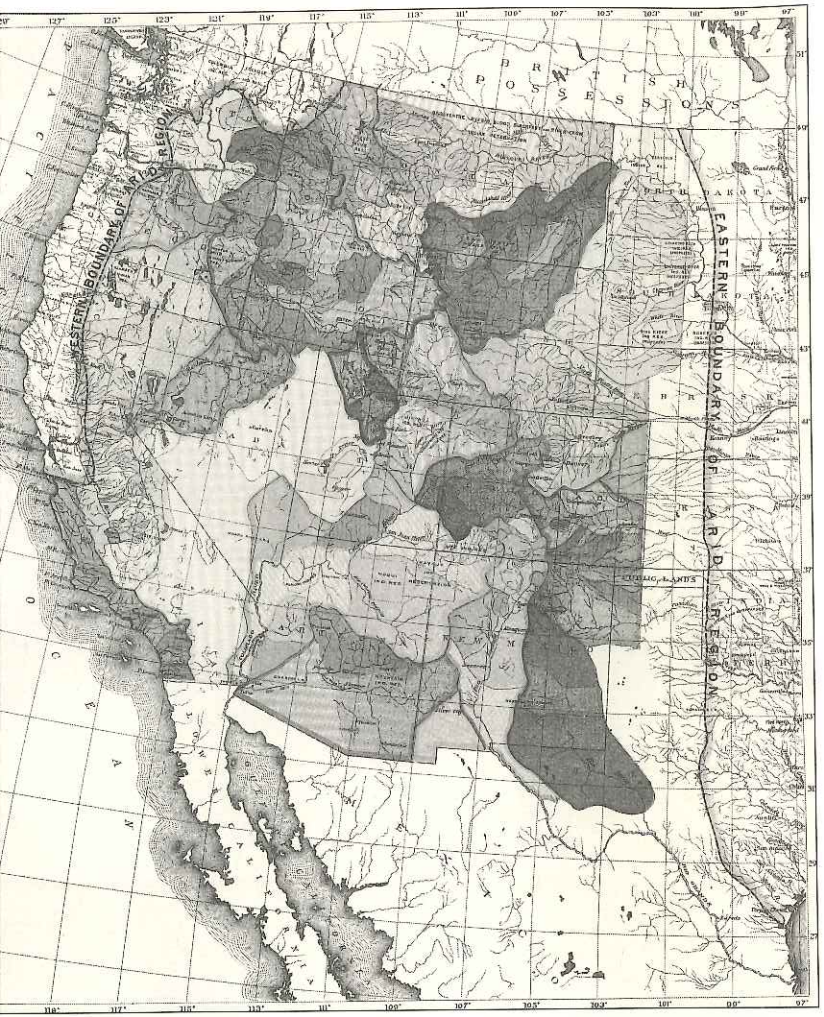

Arid region of the United States showing drainage districts, entire.
From *Eleventh Annual Report of the United States Geological Survey, 1889–90.*
Courtesy of the New Mexico History Library, Santa Fe

Thinking Like a Watershed

Voices from the West

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AND CELESTIA LOEFFLER

University of New Mexico Press ✣ Albuquerque

Printed in the United States of America
17 16 15 14 13 12 1 2 3 4 5 6

Library of Congress Cataloging-in-Publication Data

Thinking like a watershed : voices from the West / edited by Jack Loeffler and Celestia Loeffler.
p. cm.
Includes bibliographical references.
ISBN 978-0-8263-5233-0 (pbk. : alk. paper) — ISBN 978-0-8263-5234-7 (electronic)
1. Human ecology—West (U.S.) 2. Desert ecology—West (U.S.) 3. Stream ecology—West (U.S.) 4. Indigenous peoples—Ecology—West (U.S.) 5. West (U.S.)—Environmental conditions. I. Loeffler, Jack, 1936– II. Loeffler, Celestia, 1981–
GF504.W35T55 2012
304.20978—dc23

2012024090

BOOK DESIGN
Typeset by Lila Sanchez
Text composed in 10.25/13.5 Minion Pro Regular
Display type is ITC Fenice Std

For our children . . . may you remember the wisdom of the land

This anthology is offered with humility in the hope that it may in some small way contribute clarity to the broader spectrum of human perception.

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Rina Swentzell, photo by Jack Loeffler

Rina Swentzell

Rina Swentzell was born into the celebrated Naranjo family in the Tewa-speaking Santa Clara Pueblo. She earned her BA in education and her MA in architecture from New Mexico Highlands University. She earned her PhD in American studies in 1982 from the University of New Mexico. Swentzell writes and lectures on the philosophical and cultural basis of the Pueblo world and its educational, artistic, and architectural expressions. Her writing appears in magazines, scholarly journals, and edited collections, and she appears in video presentations for television and museums commenting upon Puebloan cultural values. She has been a consultant to a number of museums, including Santa Fe's Institute of American Indian Arts and the Smithsonian, and was a visiting lecturer at both Yale and Oxford in 1996. She has contributed to Lore of the Land as a board member and scholar since 2007. She is the author of *Children of Clay: A Family of Pueblo Potters* and *Pottery in Santa Clara: A Photographic History of Pottery in Our Community*. She is coauthor of several other books. In the pages that follow, Rina Swentzell reflects on the Puebloan way of thinking about and perceiving home watersheds in the arid landscape of northern New Mexico, where her culture has gradually evolved in response to the needs of the homeland for countless generations.

Pueblo Watersheds

Places, Cycles, and Life

It was a quiet, early summer day, and we, the Santa Clara Pueblo people, were solemn and thoughtful. There had been no rain for a couple of months. Rivers and streams were below their normal flows. Plants were shriveling and the ground was packed and crusty. Any loose dirt had long ago been blown in half-pyramid forms into the corners of the plaza. It was time to ask for consideration from forces beyond our human selves. It was time to ask the cloud people for help. It was time to ask for their love—to ask for rain.

As was already happening in many of the other Pueblo communities throughout northern New Mexico, we stood surrounding the double row of dancers with their headdresses moving against a clear blue sky. The singing was tender and strong with feeling. There were no visitors; only community people stood watching and joining their energies with the song and movement of the dancers. For most of the day, the people were quietly focused. Then, during the third coming-out of the dancers, a small cloud, seemingly out of nowhere, formed over us. Shortly, tears joined the gentle drops of rain that fell on our faces. The cycle of life had once again embraced us.

Definition of Watershed by Pueblo People

There is the understanding in the Pueblo world that a watershed is a whole cycle of water movement within our natural world that includes the skies, the clouds, the mountains, the hills, the surface waterways, and the groundwater beneath the surface—as well as humans, plants, and other creatures. This was the preeminent thought offered during the sixteen interviews for the Lore of the Land watershed project that my sister, Tessie Naranjo, and I conducted with Pueblo people over a two-year period. Although it is well acknowledged by Pueblo people that our surface waters originate in the far

and surrounding mountains, the people we interviewed insisted on looking to the skies, to the clouds, as the beginning of any watershed cycle. A Tesuque Pueblo woman talked about the cycle beginning in the skies. Rain, she says, "comes from the sky, goes into the Earth, underground, comes back up into lakes and rivers, and then evaporates back into the clouds." This expands the general definition in Western thought that a watershed is an area of land that drains into a lake or river. Or that a watershed is a ridge of high land dividing two areas that are drained by different river systems.

This two-dimensional view of a watershed within general Western thinking is expanded into three dimensionality by the Pueblo interviewees when they speak in terms of a cycle of movement in which water, people, and life are included. This thinking is closer to John Wesley Powell's statement that "a watershed is that area of land, a bounded hydrologic system, within which all living things are inextricably linked by their common water course and where, as humans settled, simple logic demanded that they become part of a community."

In the Pueblo world—and in John Wesley Powell's thinking—*community* and *watershed* are synonymous. A watershed is an interwoven web of life energies from clouds to rivers to streams, springs—and tears. The analogy goes further when a woman from Jemez says, "We [humans] are like clouds. Our bodies are 99 percent water." So our human songs, dances, and thoughts can communicate with the clouds because, as a San Felipe Pueblo woman said, "Water can talk with water." Many of the Pueblo interviewees viewed water as the very lifeblood of both the people and the natural community.

In this way of thinking, "The water in a watershed and the blood flowing through the human body are doing the same thing," said the woman from San Felipe Pueblo. They sustain and nourish life. They help create organic systems where connections and communication between parts and other wholes can happen. Any watershed and any human body are both a whole and a part of another whole at the same time. And they do define where we live. Both are home, each is where we live.

As each human body is unique, so is each watershed. The uniqueness of any watershed is defined by the surrounding landforms such as mountains, hills, and valleys. "There are no geopolitical boundaries," noted a Tesuque Pueblo man. And, in Pueblo thinking, a great emphasis is placed on mountains as definers of world space, or places where we live, for example, watersheds. The Okhuwa, or cloud people, arise from the mountains and move

through the adjoining hills and valleys. That movement is like the breath of the universe. A Tewa prayer begins, "Within and around the earth, within and around the hills, within and around the mountains, the breath returns to you." This breathing cycle is related to water in a statement by a San Juan woman who simply says, "Water is part of the breathing cycle." But, as there is one universal breath, there are also breaths peculiar to any place. In some places the breath, or wind, moves gentler than in other places because of the whole nature or physical formation of that region. Water, similarly, moves down mountains and through hills differently than it does in valleys. A man from Santa Clara Pueblo says, "There is fast water and slow water." He goes on to say that the Río Grande has slow water, and the mountain stream that flows through Santa Clara Canyon is fast water, and they must be treated and talked with differently. Moreover, any water brings with it the soil, the ground, that it moves through, making the quality of water in any watershed unique. Then, as we drink that water, our lifeblood, we are again and always one with and part of that place, part of that watershed, part of that unique community.

Meaningfulness of Water and Place

"The prayers that we [Pueblo people] say show the spiritual significance of water, and just lately it's been proven through scientific mythology that when you talk nicely to water, water looks pretty," said a man from Tesuque Pueblo. A couple from Jemez Pueblo talked with enthusiasm about water bringing beauty because the whole cycle of rain coming from the clouds and touching rocks, plants, and creatures expresses our common inherent beauty. "Water brings beauty to the land, the grass, and [hence, it also] brings happiness. It brings beauty because it brings out all the colors in the earth and the trees." This thinking implies that water reminds us (humans) that we are also beautiful because we are one with both water and place.

For Pueblo people, water and place are also inseparable. Where water emerges from the ground is of great significance. Shrine places are often located there. They are symbolic openings for the emergence of all life because sometimes there is no visible water source. These watery places are where we connect with the underworld, that place that we came from and to which we return when we die. It is where the people "go back to the lake, back to the place of origin, back to the watery place. In that place, we breathed water and not air," stated a young man from Santa Clara.

A Tesuque Pueblo woman talked about springs as "being the opening into the womb" of Mother Earth.

There are shrines at these watery places of origin. Generally, there are four major shrines located in the far mountains surrounding any village. Then, there are the shrines located in the close hills forming another of the concentric circles embracing any Pueblo village. The next ring of shrines is around the outer limits of the physical village. And the center point is in the Pueblo plaza. "The center is our community. That first ring is our homes. The second ring is the foothills, and the third and fourth rings, all the way to the top of the mountains," said the man from Tesuque Pueblo. All these rings have shrines where connection can be made with the natural energies of that place, including water. And the clouds and rain from the sky, in combination with these horizontal concentric circles around place, define a world sphere, a three-dimensional watershed, within which a whole community of plants and animals, including humans, can exist in an interdependent and healthy way.

Moreover, the Tesuque Pueblo man continued, "Our villages are often built next to springs. These springs are connected to surface waterways, and these waterways are connected to the lakes and mountains, which in today's terms are called watersheds." Springs and lakes help define particular community or watershed areas in Pueblo thinking. They connect to the water that flows underground. Moreover, the Okhuwa, or cloud people, come from those watery places in the mountains. "It is from these places that the people-gone-on-before sent clouds and rain. They [the cloud people] are the manifestation of thoughts and desires of those gone on before," continued the young Santa Clara person. The cycle of life, then, goes from underground water sources, to surface water places, and into the clouds in the sky. Healing for humans happens when we are part of that cycle. Water is collected from all those water places for healing ceremonies. Rivers, as well, are places of cleansing and healing because the water is moving and the energy is fresh. Spring, lake, and river waters are brought into the living human community as connective blessings from the larger region, the larger water place where our ancestors dwell.

In that sense, all of the interviewees emphasized the sacredness of water and its spiritual significance. A number of them simply said, "Water is sacred." The Jemez woman reiterated this by saying that "everything comes from and goes back to water. There is no life, as we know it, without water." It is the source of life. Another woman talked about our parents being water

and earth (clay). The intertwining of life elements is a critical philosophical assumption in the Pueblo world.

Therefore, Pueblo prayers and songs, as attested by the Pueblo voices, are conversations with the clouds. A man from Jemez Pueblo talked about how he makes songs. "I talk to the beautiful clouds who are forming in the northeast from where the rain is going to come. And then the next part is to say that the clouds are here and it is raining." A young man from Santa Clara Pueblo translates a song, "Far away to the north, Okhuwa boys rise up with fog and clouds and together they are coming here. Far away, Okhuwa girls rise up with lightning, thunder, rainwater, and rain splashing. All together they are coming here." It is always a telling, a story about how life continues to happen.

And, of course, song brings the dance, which is the touching of the earth with the feet and the reaching of the head into the sky realm with the mountain and cloud *tablitas*. The human, in the dance place, is the connector of Earth and sky. And it is all about water. Pueblo dances and songs are about collecting water from the skies.

Ways of Using Water in the Traditional Pueblo World

One of the daily activities in the traditional Pueblo world was to manage the surface water that flows through the mountains, hills, and valleys. A man from Tesuque Pueblo said, "Our ancestors manipulated the landscape by placing rock [grid] structures for the harvesting of precipitation from the mountains all the way down to the bottomlands. These structures manipulated the landscape so that the land was used as a sponge, allowing moisture to reach the deep-rooted vegetation and also recharging the aquifers. Our ancestors managed the surface water into groundwater." He continued talking about how this happened during the course of a day in the pueblo. "The war chief would tell the men from the west side of the village, 'All you men from the west side, we're going to go up into the foothills and we're going to build these structures.' Other men were left to work in the fields—or go hunting."

In and around the old Pueblo prehistoric sites are evidences of this kind of collection and management of water for drinking and irrigating. Tsankawi, in the Jemez Mountains of northern New Mexico, for instance, was mentioned as a possible water institute by the interviewee from Tesuque Pueblo. Tsankawi was contemporaneous with Bandelier, Puje, and the other Pajarito sites. The site is located on a tufa rock mesa on the west side of

the Río Grande. The entire mesa and surrounding area are channeled with hand-chiseled grooves to move water into small and large collection places. Huge boulders are placed to create water channels to direct water into the fields on the south side of the mesa. What seems to be the plan of the watershed system is pecked into a very large boulder that was once part of the mesa cliffs. The involvement of the entire Tsankawi human community in the creation and maintenance of this water system was intense and is still visible today.

The Acoma people with whom we talked mentioned the community focus on guarding, cleaning, and maintaining the cisterns on top of the Acoma mesa in years past. Imagine the intensity of community intent and practice through song and dance for clouds and rain, which was and is the only source of drinking water in that very arid place. A woman from Taos Pueblo mentioned that the whole irrigation system for the community was set in place centuries ago. And, of course, the location of present-day Taos Pueblo straddling the stream, which flows from the mountains, brings the energy of water into the daily and ceremonial life of the human community. During the winter deer dance, both children and adults are dunked into the icy stream to cleanse body and soul. It is a way of remembering "the source of life." And the source of both water and life goes back to Blue Lake in the mountain above the pueblo. Young and old still walk or ride horses for four days of celebration and connection with their sacred place of origin. The reclaiming of their water place, their watershed, happened in the 1970s and is still considered one of the great legal triumphs of Indian country.

Since all waterways are connected to lakes, hills, and mountains, "it is essential that we spent a lot of time up in the foothills, all around the communities," noted the Tesuque Pueblo man. Visiting these places on an almost daily basis made the entire region intimate. The rocks, animals, and plants were all familiar. How the water flowed from mountains and into valleys was intensely known. Where the fish found harbor and which plants grew alongside the waterways was information needed for survival.

This knowledge was as sacred as the places on the land. Places, water, clouds, plants, and animals—including people—had inherent sacredness in that world. People became capable of healing the land and the water, as both land and water had powers to heal people. In this thinking, respect of every other became an essential element of living. And that respect was shown through prayer, song, and dance. The ceremonial life was important to express acknowledgment of energies that flowed through the land,

the sky, and the waters. Prayers and songs are talking with those energies. Dances and shrine visits are an act of becoming one with those energies.

"We live here, we honor water every day. It's in our prayers, it's in our songs. It's in our symbols. All these symbols [used by Pueblo artists] that they have, it's just copying the landscape. The lightning bolt, the rain, the rainbow represent water. Even our hair. When we have ceremonies, women leave their hair long and straight because that represents water. We braid our hair [because] when you pour a pitcher of water into a cup, the water braids itself. It's all connected to water," says the middle-aged man from Tesuque Pueblo.

Life, then, was about continuing to remember the sacredness of the world that we live in, acknowledging our oneness with water, land, and sky, and accepting the sacredness that permeates the wholeness of our place and lives.

Changes

These thoughts and desires encoded in the songs and prayers of the Pueblo world were diminished by contact with the Western European culture. The watersheds surrounding the Pueblo villages were not acknowledged as sustainable systems of living but rather as religious and political domains with artificial boundaries described by those who held human power. Lines were drawn on the ground that had nothing to do with how the wind blew, how the waters flowed, or where the plants grew. Human desires and needs began to separate from and to supersede the native flow of any place. A sense of oneness with Earth, sky, rain, wind, and water lessened with the idea that everything was for the redemption of the individual human soul, human use, or human economic profit.

The religious effort, or missionary colonization, of the Pueblo people by Europeans began during the early years of the seventeenth century, principally along the Río Grande between Taos and Senecu; eastward to the Galisteo basin, the Pecos valley, and the Salinas plains; and westward as far as Zuni and the Hopi towns of Arizona. To the Spanish invaders of the seventeenth century, the economic value of this area was negligible. Its minerals were difficult to exploit, agriculture was limited, and commerce consisted in barter. The only justification for its occupation was as a missionary area. Incredible church and mission structures enclosing volumes much larger than necessary for immediate needs were built. These structures were imposed on the Pueblo village forms for the purpose of becoming the

focal centers of those communities. These structures dominated the landscape with the purpose of turning the minds of the Pueblo people toward an abstract heaven away from this earthly place whose character was dictated by sun, wind, and water patterns. Conversion was slow, but there certainly were inroads into the traditional Pueblo way of thinking.

As the political and military branch of the Spanish colonization strengthened, lines in the ground were drawn from the front door of those mission structures defining boundaries of ownership. The Pueblo people were contained within alien boundaries. No longer could communities of Pueblo people move through the valleys and over mesas as they had always done, imitating the water, the clouds, and the wind.

But it was the idea of human ownership of pieces of the Earth that was such a huge, disruptive concept. How could any person own any part of the Earth, the mother, who gave birth to the people? How could any person own part of a flowing entity such as a stream or a river? These continue to be earth-shattering concepts.

Converting people to an alien religious and political system, which defined unfamiliar geopolitical boundaries, was part of the controlling mind-set of the Europeans, who did not talk with the clouds or acknowledge living systems such as watersheds. Intense control of water systems became increasingly important as technologies improved with each succeeding wave of Europeans. Dry farming, which used the water coming from skies and which was the most commonly practiced watering system by the Pueblo people, was too primitive an approach for the Europeans—both Spanish and Anglo. The acequia system of the Spanish colonial period consisted of small waterways that moved water for miles through ground and wooden ditches. They were similar to Pueblo irrigation systems but with horses and metal tools. The acequias became much more extensive than what the Pueblos developed. With the Anglos and greater technology, large cemented irrigation canals and megadams became the standard. Natural watersheds were ignored as more control over the flow of water was practiced.

Large dams were built on rivers such as the Chama and Río Grande. An ex-governor from Cochiti Pueblo bemoans the Cochiti Dam on the Río Grande. "We have the Cochiti Dam right in the middle of our reservation. And it's a good-sized dam. It's the eleventh-largest earth-filled dam in the world. The dam was concluded around 1970. Within a matter of months we noticed that the dam was starting to leak, to seep. In the hillsides you could see the dampness of the land. And so it happened that

we just couldn't farm anymore because of the seepage. South of the dam was prime farming land. Families for years and years had fields that were thriving and produced livelihood for the people. But when that [seepage] occurred nothing could be farmed anymore. Water, after a while, was sitting a foot deep, and you couldn't go in with a horse and plow or a tractor. And so farming came to a halt."

He continued, "So that happened and, of course, many tribes faulted Cochiti for it. Actually Cochiti never did anything that wasn't supposed to be done, but we were strapped with the fact that we created this situation, this monster of a dam. But the other thing that happened was that they had to close the river down [to try to repair the seepage]. That was never to have been done either because the water in our area, our culture, is the lifeline to the Pueblo way of life. And to cut off the very flow of water that ties us to our [life] journey is likened to putting a tourniquet on yourself.

"But there's more to the story. One of the things that we learned after the dam was completed was that a sacred site had been severely violated, damaged, right at the site of the outlet. There's a mountain of rock there. It's a good-sized rock that was a sacred site, not just to Cochitis but to Zunis and Santo Domingoans and to many other Pueblos. The rock was shaved in half, cut in half, and it was used to anchor the outlet, the gushing waters from the outlet. The Cochiti tribe never was informed about it. So some very god-awful stuff occurred when the dam was being built. And some people say in Cochiti that it was because of the sacrilegious acts that occurred—the shaving of that monument there, the sacred mound, that as well as the cutting off the water—that we were paying the price of what was happening with the seepage of the dam."

He continued, "The other thing that came with the dam, besides the damage of the fields and the loss of a whole generation of farmers and never being able to get it right again, is the tourism. We all thought that the dam was going to be flood control, but we also learned that it was a recreation site, a recreation dam. There was the tourism that came, but most of them were carrying a six-pack or two of beer and other harder stuff. What it has caused the Pueblo is just a tremendous amount of headaches. A host of problems came with the dam, including the little town of Cochiti Lake."

Downstream, people in San Felipe were feeling the effects of the dam as well. A middle-aged couple from San Felipe remembered their childhood years in that pueblo when they used to travel five miles to their fields. "We could travel along the river in our little wagon. We would see sand turtles, gigantic sand turtles, sunning themselves on the sand dunes. We used to go fishing to get sardine-type fish. We'd go to the shallow waters and we'd make our own nets. We'd get those little fish. I don't think we have those kind of fish anymore. Because of the [Cochiti] dam we don't have the actual flow anymore. It's all being controlled. I'm sure the river snake kind of got mad at that. The water right now just flows straight through. It doesn't have those curves, nice curves, that it used to have with little islands in between. It doesn't take its natural route anymore. In a lot of places they reinforce the sides so it doesn't erode out to the side. But who's to stop the water? Let it go where it goes. It looks unreal, unnatural, to have that steel sticking out on the side of the riverbed. I don't agree with what they are doing."

A seven-term ex-governor of Laguna Pueblo told a similar story about uranium mining on that reservation. The Jackpile Mine in Paguate on the Laguna Reservation was in operation from 1952 to 1982 and hired some eight hundred people. "Unfortunately, with the coming of the mine, people decided to give up farming and instead go to work at the mine. We turned from an agrarian society to one that is dependent upon a wage economy. The transition began to take place in the early 1930s, and by the mid-1960s there was very limited farming. As the mine developed in size and began to move closer and closer to the village, some of our natural springs began to dry up. A number of those springs are really shrines and sacred sites. It's only been since the closure of the mine and the reclamation that has taken place that at least one or two of those springs have begun to show some signs of life again."

Farming in the larger Laguna Reservation was impacted by increased general population in the area and the impoundment of the Río San José into reservoirs and man-made lakes. The Laguna man lamented that "there is a lack of sufficient irrigation waters because of upstream users, the impoundment of the water at Bluewater Lake, the city of Grants, and our neighbors upstream, the Acomas, who had a reservoir built in the 1930s."

In the meantime, a group of three people, one woman and two men from Acoma, talked about the Río San José and the issues in their community upstream from Laguna. "The short, probably no more than ten miles long, life's reach of the Río San José emerges from springs on the western edge of the Acoma grant. Originally, at least a third of the flow came from the Zuni Mountains, and another third came from a major spring located southwest of Acoma, the Ojo de Gallo spring. Today we are down to our final third contributor, the series of springs which are within the river bed itself. Upstream, fifteen miles away, are the municipal communities of Bluewater Village, Milan, and Grants. So during the heyday of uranium mining and

activity, huge amounts of people populated those communities. The wastewater of those communities was dumped in the streambed and eventually reached those springs."

One of these three Acoma people commented that they are almost at crisis level. "We don't have baseline flows in the river today. They are so low. And because of that, some of the constituents in the river, like total dissolved solids and sulfates, have formed a crust. They're more pronounced because we don't have the dilution factor. We're at the lowest levels ever in the history of Acoma for the Río San José flows. It's amazing that our little stretch of the river at Acoma is still alive today. It's dead upstream, there's no flow. And there's really no perennial flow downstream. Laguna is even worse off than we are because they're downstream. It's just alive at Acoma, barely alive, barely alive.

"There was a water quality lawsuit by the Pueblo, which was settled out of court. Grants was forced to go to a zero-discharge situation where no more wastewater could be dumped in the Río San José. But there were already decades of pollution in the river. That destroyed the stream. Our people felt that it ruined their agriculture because if you irrigate with that water, you'll see crustation of the soil and the vegetables are stunted. Some people think that so much sludge was deposited into the riverbed and that it's never been cleaned up. Now it's being threatened by new uranium mining, dewatering on a very large scale, a massive scale, and our river can't survive it a second time."

The river that they "could actually swim in, fish from, and just walk along the banks" as children is now out of bounds. Already fifty years ago, parents were "telling us children, 'Don't go swimming in the river.' Many of the children would go over there and come back all white."

These people from Acoma also talked about the connection between groundwater and surface water. "The groundwater is something we can't see because it's not visible on the surface except through spring flows. Groundwater levels in this region below Mount Taylor have gone down over the last fifty years. We have to be very careful with our groundwater pumping that we use to supply our community water system today."

Groundwater in the form of spring flow, along with rainwater, was commonly used in all the Pueblo communities for drinking. Through the years, springs that were used for centuries dried because of regional overuse of water or because they were rerouted. According to an elderly man from Santa Clara Pueblo, "The spring which supplied the Pueblo's drinking water was half a mile away up the canyon. It was first piped right before World War II and put in a storage tank above our area here. And that storage tank served as pressure to feed the homes. And they piped it through the pueblo into three windmills, two here in the pueblo and then one behind the day school. Now, in the wintertime, when everything would freeze over, the windmills would cease to operate; everyone would go to the creek to get their drinking water. In them days the creek water was clean. Anyway, it was a BIA [Bureau of Indian Affairs] project. It was sort of like a pilot program because they were trying to get the Pueblos into bettering themselves as far as drinking water."

Although surface water from the stream that comes down the Santa Clara Canyon is used for irrigating the fields, three wells using groundwater have been dug in the last fifteen years for drinking and household use. The elderly man said that his community "was fortunate in having a mountain stream and the Río Grande River. And the waters were so different. The river water was real slow compared to the stream water. It was the best thing. You could be irrigating, and even where the water was traveling, if you'd get up close and stepped there, your foot would go down into the dirt because the water was soaking so well as it came along. Maintaining that big ditch was another thing. It used to be a community effort. There was always one man in charge, and he would go ahead and with his shovel he would mark off a portion that each individual was supposed to clean up. It was a big job—making that ditch. They dug the ditch and even went deep with shovels to clean out all the dirt that needed to be cleaned out. In today's way of cleaning the ditch, they just sort of sweep the ditch. Then in later years, the BIA came in to line the big ditch with cement."

The woman from San Felipe talked about how men in that village would "clean the ditch for one whole week. And now it takes them one day. One day, because they don't dig in the way the old people used to. They would dig in and get rid of the mud that settled and get back into the sand. Today, there's a lot of grass and junk along the ditch line and a lot of that moss, that green stuff—algae. It's not a very healthy water system to irrigate your fields."

She elaborated on the fact that everyone in the region does not "realize the development around our communities, like Algodones, all the new houses coming up. They don't just come up. They have to survive, and what do they need, the main thing? Water, water. And, Placitas up on the hill, they pump a lot of water out of our water basin because we have that big old tub of water underneath our valley. Our water level is going down because of all the development. Look at Río Rancho up in the hills there. So many

houses coming up. And, our own pueblo, we use a lot of water, because every household has bathrooms now. Even washing machines and dishwashers. A long time ago, we didn't have plumbing; we would have a big bucket right in the house because we'd go get water from the river. Women would go down and do their laundry. They would take their tubs and fill it up, and men would build a fire on the side and boil water right along the river. Of course we kids would be swimming or fishing. Everything was right there—food, water, laundromat.

"We used to drink that water from the river. As far as drinking water now, we really don't drink our water even from our faucet. We buy bottled water."

A woman from San Juan Pueblo said that her father would tell them not to "be throwing stuff in the water because that's where we drink water. It is sacred. Now it's just water. They throw everything in the water and you can't drink it anymore."

The pollution of drinking water is a common issue in the pueblos. A San Ildefonso interviewee talked about "springs that were just popping out from different locations. As our population grows here in this area, water is not coming to the surface as much. Lower Los Alamos Canyon used to have an annual flow. When Los Alamos started sucking up more water, that dried down. Any water that is there in the canyons is polluted with the stuff they put in."

This ex-governor of San Ildefonso said, "We've come such a long ways that we're complacent. How people see water in the ceremonies that we need to continue or that were handed down by our ancestors are going on the wayside, and very few people are practicing or getting involved in the ceremonies to re-create or to bring them back to life. We don't even go out to the four main mountain peaks asking them to continue to provide water. I think we've gotten to the point where we've become so complacent that we go to the sink and turn it on rather than going up to the mountains, the peaks, where the streams are and bringing some of that water home to mix with our waters so that they combine. A lot of people don't pray to water before they get into bathe or to shower or to even drink. Nobody goes to the river anymore except for after the corn dances. Now they're telling us here at San Ildefonso that the fish in the water between the Totavi Bridge and Black Mesa are bad, and we shouldn't eat the fish. I've known since the early years that the fish in the Río Grande are highly contaminated because of Los Alamos, and they're not telling us what the contaminants are. Just think how bad they are in Cochiti Lake. Sometime in the mid-80s,

the *Houston Chronicle* wrote about the babies that were born with just brain stems, and they were blaming the middle Río Grande. We were in a pretty bad drought, and Texas was demanding release of waters from not only Abiqui and Cochiti but other dams on the Río Grande. We knew that Cochiti was highly contaminated by chemicals and radiation from Los Alamos. I think that created the birth defects that these children had. How come it's only happened on the stretch of the Río Grande that these people are drinking the water from and watering their plants? Why aren't we doing anything?"

An elder from San Juan Pueblo was also concerned that nobody is really voicing concern for what is happening with farmlands and with our waters. "Nobody is really getting angry about what is happening to our connection to the land. Our young people have no real experience in farming and being in tune with Mother Nature."

The middle-aged man from Tesuque Pueblo believes that our ways are eroding because "we want to not work hard anymore. We like the easy way of life, and working the land is not easy. It's very hard work. And we've gotten away from the belief in the sacredness of water. Water is now looked upon as a commodity sold to the highest bidder. Water now flows uphill towards money. We dance for rain, we sing for rain, our prayers are answered so it rains all day, all night. But we've built very efficient means to get rid of the water, i.e., by lining the drainages, the arroyos, lining the irrigation systems. The ground is no longer used as a sponge. So what we've done is we get into our trucks, put it in four wheel, or nowadays we have those all-terrain vehicles. They drive anywhere and everywhere, so they're destroying the land. We're destructors because every time it does rain, the sediment just flows downhill, and there's now a huge arroyo."

The concern about humans being destructive creatures is not just with Pueblo people. Terry Tempest Williams in a recent interview on PBS asked, "Where is our outrage?" She was talking about the 2010 Gulf oil spill as a regional catastrophe that spread into the coastal areas, into the oceans, and into the rest of the world. She mentioned that the only interest by the news world is assurance that the leak has been plugged, but there is an almost complete ignoring of the destruction of those waters and of the consequences for all life forms. She described with great sadness seeing a group of dolphins watching the oil being burned off the surface of the Gulf waters.

Back in Santa Clara, an older man described, with sadness but without anger, that "the Río Grande used to be pure and clean. We would harvest a tremendous bounty off the river. All kinds of fish—from eels to catfish

to carp. One day the U.S. Corps of Engineers came, and they straightened the river out and the river was destroyed. They destroyed a clean and pure system of water clear from its headwaters down through the village. So the animals felt it. All the animals. The numerous kinds of wildlife that lived there that supplied us with food. The redwing blackbird was important to us. But when they straightened the river out, we no longer had that bird. Small things like bamboo that we could use for arrow shafts, we don't have anymore. Nor do we have the eel or the weasel that turns white in the winter."

A woman from Tesuque Pueblo despairingly stated that "if we destroy the land, we're going to destroy ourselves. It's like we're going towards a cliff, and we're all going to end up falling off the cliff."

Hope and Continuity

This woman who predicted doom for our world if we continue "being greedy and consuming left and right and taking beyond our needs" also maintained that "we have to be hopeful." She, like all the other Pueblo people we talked with, maintained that the traditional ways have power, power to heal and to re-create. The meaningfulness of the old ways has not changed, she noted, but we need to remember and practice them—and teach the young people their significance. And there certainly are admirable efforts in the Pueblo communities to give continuity to the coming generations.

A woman from Taos Pueblo described a heritage class that she has taught for five years to young people in that community. "When we first introduced the garden to the kids, they had no concept because every contemporary child turns on the faucet, and there's the water. They don't know what it was like to be a fully operating agrarian society as our grandparents had. The kids didn't know where water came from or that there is a ditch, that there is the whole irrigation system set in place centuries ago. We would talk to them about all the elements that affect our world, both contemporary and traditional, and the natural forces that are in effect. And they saw it too because in our garden when we couldn't get water, they saw that there was trouble with ditches. Our irrigation water comes about a mile and a half off the river. We didn't just teach our kids, oh, here's the water. Go irrigate. They come with us, and we clean our ditches, and we talk about how the water flows and how our pueblo has a direct source in the mountains but that it also feeds all the little veins and arteries through this whole county, and we have to learn to feed off of that.

"We've taken the kids on a river walk and pulled junk out of the river. The first time they came, they turned over rocks and identified all the little bugs that were on the rocks, and we showed them that if you don't have these bugs in your river, that means that something is definitely wrong with the water. We took water samples back to the office, and the kids got to look at them under the microscope. They were able to see the organisms that were visible to your eyes, and they were also able to look at water that contained life.

"Then, we went to the beautiful beaver dam upriver. We talked about what the beaver does. Even though he's taking some parts of the land away, he made us a big old Olympic swimming pool. That beaver family has provided a setting that the kids can learn from and enjoy. If there are natural diversions like that, the water is reserved. It'll eventually go down, but I think that's important for those beavers to have those dams through the water system to take care of fish and provide an environment for us."

The environment, or the community of rivers, rocks, beavers, bugs, and children, was expressed as the most important thing about Pueblo life by this Taos person. "We all have to remember we are here because we are to take care of such places. To bring the rain, to sing the songs. We're not just existing. We realize that from the beginning of time, that's where the ceremonies came from because our ancestors really lived in this place. And, without that sense of community, without that respect for the land, the water and the sky, we couldn't realize the paradise that we live in. We're in paradise. Our grandpa used to tell us that everything we need, everything we need to live here, is here. He also said that we need to get our children into their place in this community to preserve what our ancestors preserved for us—life without all this technology, without all this bureaucracy that prevents things from happening, so that we can flow like the river—clean, fresh, and beautiful."

To flow pristine like a virgin river is a wonderful desire. This desire is a dream that in our world seems distant because we know that our rivers, our watersheds, have been dramatically manipulated, controlled, and polluted. The dominant mind-set of our greater society mostly views our natural environment as another object to be used for recreation, political gain, and monetary profit by governments, corporations, and some individuals. The age-old desire of Western man to be above Nature is certainly being put into practice in our technological world.

This, however, makes it more imperative than ever that we respectfully act as one with our community, our watershed, to help bring some balance into our increasingly fragile and stressed natural world. And these Pueblo

voices remind us that we do have the capability as humans to respect and empathize with the waters, clouds, and the Earth to preserve the beauty and integrity of ourselves and our world. Even more, if we do acknowledge that we are water, that we are hydrologic systems ourselves, we have the hope of seeing and honoring our oneness with the larger natural systems within which we live and that sustain us.