

## Pima-Maricopa Irrigation Project

Education Initiative



*Restoring water to ensure the continuity of the Akimel O'otham and Pee Posh tradition of agriculture*

## *An Inexhaustible Supply of Water?*

**Part 17**

In 1901, the Arizona Territorial Legislature memorialized Congress, seeking to have all American Indians within the territory “gathered on the reservations [and] have lands allotted to them in severalty.” Before this should occur, the territorial legislature informed Congress, the Indians would have to “be furnished with farming implements and an inexhaustible supply of water for irrigation of their lands.” The prevailing thinking of the Indian Office was that, because of upstream diversions, the water supply for the Pima Reservation would come from well water drawn to the surface by electric pumps.

While San Carlos had been the favored reservoir site prior to August 1902, once the “Phoenician schemers,” as the *Los Angeles Times* referred to the speculators of the Phoenix area, convinced Congress to amend the Reclamation Act to include privately owned lands, the Salt River Valley threw its support behind the Tonto site. It was widely reported that these “schemers” were seeking to “induce the government to abandon the San Carlos reservoir project by donating the Pima Indians a body of land under the old Highland canal, equal in area to the body of land now held and cultivated by them in the Gila valley.” The idea was to extend the Highland Canal to the Santan area and relocate Pima families to this area of the reservation. Within two years there was an official plan to consolidate the Pimas at Santan and open up the western half of the reservation to non-Indian settlement.

At the center of this scheme was a plan to pump the “inexhaustible” supply of groundwater beneath the reservation. Indian Inspector and engineer Colonel Walter Graves first proposed development of the underground waters of the Gila River in the summer of 1900, not because it was the only way to secure water but, rather, due to his belief that Congress would not commit itself to a national reclamation policy. “That there is an inexhaustible supply of water underlying the valley of the Gila,” Graves reported to Interior Secretary Ethan Allen Hitchcock, “there can be no possible doubt.” The underflow was “nearly always observed to be flowing either toward the river or in the same direction as the river.” In 1902, the idea of tapping into this source of water by using large underground wooden structures and pipes that would capture the underflow and transport it to irrigation canals was replaced with a system of installing pumps run by electrical power.

The idea of irrigating Pima land with well water became the central focus of new Indian Irrigation Engineer, William H. Code. Assigned to the Pima Agency, Code, a former irrigation engineer employed by Dr. Alexander John Chandler, was convinced that groundwater pumping was the only means of securing water for the Pimas. It was at Code’s insistence that the Indian Office no longer recommended construction of the San Carlos reservoir site, which Code saw as “wasteful and unsuitable.” By so doing, this allowed the Tonto (Roosevelt Dam) site to become the favored location for the first federally financed reclamation project. The Gila River was “relegated to a secondary project” in 1903.

By the early 1900s water only sporadically flowed across the reservation. Limited irrigation occurred in the areas around Blackwater, Sweetwater and Gila Crossing due to the underflow of the river rising to the surface through alluvial springs called *shon*. These areas afforded a few thousand acres of farming with limited results. Most of the Pima continued to face difficult times due to the loss of water and the drought that had begun a decade earlier. It was in this context that Code, Fredrick Newell and Louis Hill sought to force on the Pima pump irrigation for 10,000 acres of land in the Santan area.

A.J. Chandler arrived in Arizona from Detroit, Michigan, in 1887. While there, he worked for the Ferry Seed Company, which was owned by Dexter M. Ferry. By 1890, Chandler, who by his own admission desired to profit on land speculation, owned two 160-acre tracts of land, one in Mesa and one near Tempe. Although there was an abundance of water in the Salt River at the time, it was difficult to get the water into the head of the canals that would irrigate the land further south of the river. Having learned from the General Land Office in Tucson that “people interested in irrigation enterprises” could “mortgage the land for the improvements,” Chandler approached D.M. Ferry and Ferry’s secretary and treasurer, C.C. Bowen, about forming a canal company. This company became known as the Consolidated Canal Company. The partners also created the Mesa Improvement Company to sell land to settlers.

With financial backing from his partners in Detroit, Chandler built the Consolidated Canal Company but not before he acquired more than 18,000 acres of land on the north boundary of the Community. Most of this land was beyond the limits of the then existing canals of the Salt River Valley. If the land were to become productive, water would have to be transported across the desert to the land. At the request of Chandler, hundreds of prospective “settlers” in the Salt River Valley were encouraged to acquire land under desert land laws. Nearly all of these settlers acquired land and, following Chandler’s lead, mortgaged all but 40 acres to pay for the canals Chandler proposed to build.

Chandler acquired almost all of this land. Under the provisions of the Desert Land Act, which allowed actual settlers to acquire up to 640 acres of desert land from the government if they made improvements on the land, approximately 24,000 acres of land was withdrawn from entry in what constitutes most of the City of Chandler today. Chandler’s willing accomplices simply followed his lead, filed false affidavits and mortgaged 600 of their 640 acres to pay for the canal that Chandler’s Consolidated Canal Company was to build. The “settlers” then conveyed their dummy entries to Chandler by simply allowing Chandler to assume the mortgages. Chandler later sold this land for \$100 to \$150 per acre after the canal was built.

To his credit, Chandler did pioneer the work of developing pump irrigation in the Salt River Valley. To oversee this venture, he hired Code as his personal irrigation engineer. Code worked for Chandler until 1902, when he went to work for the Indian Service. As Indian Inspector and Irrigation Engineer, he was assigned to examine the water needs of the Pima Reservation. Rather than support the San Carlos site, as the Bureau of Indian Affairs had prior to his arrival, Code recommended that the Indian Office install electrical pumps to draw out the “inexhaustible” supply of water from beneath the reservation to irrigate Pima fields. As it turned out, Code, Chandler “and other grafters” worked together to devise a plan to not only help the Salt River Valley secure the first irrigation reservoir, but also to remove 180,000 acres of reservation land from the Pima.

Code and Hill were direct participants in the new policy of groundwater pumping and cession of lands. After his arrival at Gila River, in 1902, Code made several investigations “of the irrigation conditions on the Gila Reservation.” Working with the new Reclamation Service Supervising Engineer Louis C. Hill and Director Frederick Newell, Code proposed wells in place of the water that could be stored in the San Carlos reservoir. With the Indian Office no longer encouraging the San Carlos site, government officials quietly switched support to the Tonto site. By the spring of 1903, it was a sure bet that the Tonto site would be selected as the first federally financed reclamation project.

In October 1902, Code drafted a report to Hitchcock regarding the irrigation possibilities on the Pima Reservation. Code reiterated Graves’ proposal for developing the underflow of the Gila River. This water could be accessed either by a storage dam or groundwater pumps. Of the two, the latter was preferable, Code suggested, because there was such an abundance of water in the underflow. Unknown to the Pima and Maricopa, Code’s proposal for pump irrigation required their relocation to the area targeted with agricultural production—the Santan area of District 4—and the sale of 180,000 acres of their land. Not only were the Pima unaware of this provision, they were not told of the plan to pump water for irrigation. What was known, of course, was that the “inexhaustible” supply of water beneath

the reservation was already dropping rapidly by 1900. Former Pima Agent Cornelius Crouse reported that summer the water table in Sacaton had dropped nearly 10 feet over the course of the past decade.

With the passage of the Indian Appropriation Act of 1903, Congress provided \$150,000 for general irrigation works on Indian lands. These funds were to be administered under the authority and at the discretion of the Secretary of the Interior. Using this authority, the drilling of wells began. For the Pima, it initiated a scheme to rob the people of their land and, more importantly, to terminate their rights to the surface flow of the Gila River.

### *An Inexhaustible Supply of Water?*

Find the words listed below in the grid. Words can go horizontally, vertically and diagonally in all eight directions.

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| I | R | Q | D | R | S | D | F | N | D | S | F | F | J |
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CONSOLIDATED  
INEXHAUSTIBLE  
SANTAN  
UNDERFLOW

DESERT LAND  
IRRIGATION  
SCHEMERS

ELECTRICITY  
RELOCATION  
SHON

## *Teacher Plan for “An Inexhaustible Supply of Water?”*

### Terms to know and understand

- Relocate
- Inexhaustible
- Alluvial springs
- Scheme
- Cession
- Pumped Water

### Critical Thinking:

- Beneath the Gila River and the Gila River Valley is a large underflow of water stored in an aquifer that holds millions of acre-feet of water. Since the river no longer flows would it be wise to allow unlimited pumping of groundwater? What results when too much water is pumped from under the ground? Is it too late to correct the over pumping of groundwater? Why or why not? (Note: The 2001 Governor’s Water Management Commission Final Report indicates the Pinal Active Management Area has withdrawn some 51,000,000 acre feet of water over the past century. What is the relationship between groundwater pumping and large land fissures that now appear throughout the county?

### Activities

- William Code sought to force the Pima to become dependent on groundwater. The prevailing belief was that the Pima no longer had any rights to the surface water of the Gila River simply because the waters of the river had been appropriated by non-Indian farmers above the reservation. No court had ruled on this mistaken belief but nonetheless Indian Commissioners Francis Leupp (1901-1909) and Robert Valentine (1909-1912) both were of the opinion that the Pima had permanently lost their rights to the surface flow due to upstream diversions. Valentine only reluctantly instigated legal proceedings and only after the US Supreme Court ruled in favor of Indian nations in the *US vs. Winters* case. Discuss with students what might have occurred had the Pima accepted this scheme and utilized well water only. What might have happened to their rights to the surface waters of the Gila River? What about their rights to the waters later stored behind Coolidge Dam?
- Have students research the importance of springs, or as the Pima call them *shon*. Where were these springs originally located along the Gila River? Why were they important? If the water supply beneath the reservation were “inexhaustible,” as several engineers believed it was, where have the springs gone today? When these springs disappeared, what disappeared with them? P-MIP is dedicated to rebuilding a minimum of 7 and a maximum of 12 wetlands across the reservation. How might these wetlands restore wildlife? Plant life? What human impact might they have?
- Invite a P-MIP speaker to your class or school to discuss wetlands or riparian restoration. How can you and your school be involved in helping to restore these areas within the Community?

### About P-MIP

The Pima-Maricopa Irrigation Project is authorized by the Gila River Indian Community to construct all irrigation systems for the Community. When fully completed, P-MIP will provide irrigation for up to 146,330 acres of farmland. P-MIP is dedicated to three long-range goals:

- Restoring water to the Akimel O’otham and Pee Posh.
- Putting Akimel O’otham and Pee Posh rights to the use of water to beneficial use.
- Demonstrating and exercising sound management to ensure continuity of the Community’s traditional economy of agriculture.

Students will be able to:

1. Hypothesize the effects of groundwater pumping on the land and the long-term effects of such pumping.
2. Describe the scheme set into place by Dr. Chandler and how this scheme would have impacted the Pima-Maricopa, both a hundred years ago and today.

**Objectives**