

Irrigation Leader

VOLUME 14 ISSUE 4

APRIL 2023

NEW ZEALAND EDITION



**Farmer and North Otago Irrigation
Company Director Jo Hay: Turning
Change Into Opportunity**

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Irrigation Leader

NEW ZEALAND EDITION



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COVER PHOTO:

Jo Hay, Director, North Otago Irrigation Company.
Photo courtesy of Jo Hay.

How Irrigation Provides Surety to New Zealand Farmers


By Kris Polly

In our cover story this month, North Otago-area farmer Jo Hay tells us about the change that irrigation has made in her area. During times of drought in the 1980s and 1990s, the entire regional economy suffered. Today, entities like the North Otago Irrigation Company (NOIC), for which she serves as a director, can mitigate those downturns. In our interview, Ms. Hay tells us more about her family's operations, the NOIC, and the industry associations and community groups she is part of.

Much of the rest of this issue focuses on title transfer. Many Bureau of Reclamation irrigation projects were set up with the understanding that after their construction costs had been repaid, title to federally owned infrastructure would be transferred over to local sponsoring entities. While it has not always played out that way in the past, title transfer has some momentum behind it today. Over the past few decades, and particularly after the passage of the Dingell Act of 2019, title transfer has become more popular and less onerous, and its benefits are more widely recognized. To learn more, we speak with Tom Knutson, the president of Water Management Solutions LLC and the former general manager of Loup Basin Reclamation District and the Farwell and Sargent Irrigation Districts in Nebraska, which underwent title transfer in 2002, and with individuals from nine additional districts about their own title transfer experiences—the motivations behind them, the process, and the results. We also include a list of all the Reclamation works that have been transferred over the years.

We are also publishing an interview that was conducted live at the 10th Annual Irrigation Leaders Workshop, held in January 2023 in Phoenix, Arizona, where Hobas CEO Martin Dana told attendees about the pipe company's recent expansion into the irrigation and municipal water markets.

We also speak with Paul Meeks, the President and CEO of Worthington Products, about the company's canal safety products and its other offerings for irrigation districts.

It is almost always the case that the people on the ground are the ones who are best placed to make timely decisions, respond to user needs, and determine spending priorities. With that in mind, once a local irrigation or water district has paid back the federal government for its construction costs, it should take a careful look at whether title transfer is the right choice for it. If you are in that situation, I hope this issue helps inform your decisionmaking. I also encourage you to consider reaching out to some of our interviewees for further information and advice. 

Kris Polly is the editor-in-chief of Irrigation Leader magazine and the president of Water Strategies LLC, a government relations firm he began in February 2009 for the purpose of representing and guiding water, power, and agricultural entities in their dealings with Congress, the Bureau of Reclamation, and other federal government agencies. He may be contacted at kris.polly@waterstrategies.com.

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Farmer and North Otago Irrigation Company Director Jo Hay: Turning Change Into Opportunity



Lambs graze in front of a Zimmatic pivot on Ross and Jo Hay's farm.

As a fourth-generation North Otago farmer, Jo Hay witnessed how the introduction of irrigation liberated the region's farms and town from cycles of boom and bust. In October 2022, she took a seat at the table as a director of North Otago Irrigation Company (NOIC), the company she credits with that change. In this interview, she talks about her family's sheep and beef operation and how farmers can look for opportunities in the shifting regulatory landscape.

Irrigation Leader: Please tell us about your background and how you came to be in your current position.

Jo Hay: I am a fourth-generation farmer. I live here on our farm with my husband, Ross, and our three children. We took over the family farm from Ross's parents in 2006. I was teaching full time and working on the farm in my spare

time. In 2018, we took on the lease of a larger property. At that point, it was clear that I needed to drop what I was doing and dive into the farming business, which I absolutely love. I have always been involved in various community roles. I took on leadership positions because I wanted to become more involved in both the sheep and beef industry and the wider agricultural industry.

Irrigation Leader: Please describe your family's farm operations.

Jo Hay: We run a sheep and beef operation that spans two properties. Our home farm, Springbank, is 270 hectares (667 acres), 80 hectares (198 acres) of it irrigated. Our leased farm, Lighthouse Hills, is 410 hectares (1,013 acres). The sheep operation has 2,800 crossbred breeding ewes.

We consistently lamb at around 150 percent; of that, we keep roughly 750 hoggets (second-year sheep) each year. The rest of the lambs are finished and sold to Silver Fern Farms. Over the winter, we also finish fine-wool lambs. Our cattle operation is part Friesian bull beef and part steers. Approximately 200 Friesian bulls are raised from 100 kilograms (220 pounds) each year. Along with that, approximately 100 steers are also finished. The steers are the more flexible part of our system: We buy them at various weights to fit the season we are having.

Irrigation Leader: How many people work on the farm?

Jo Hay: Our team consists of my husband Ross and me; our stock manager on the leased block; and Ross's dad, who is in his eighties but still comes to work every day.

Irrigation Leader: Are there many sheep and beef farmers in your area?

Jo Hay: In the North Otago downlands, a large proportion of the agriculture is dairy and dairy support. Most sheep and beef operations are further inland, in the steeper hill country. There are not many sheep and beef farmers in the lower country where we are. In fact, none of our neighbors have sheep—they are either beef or arable farming.

Irrigation Leader: What irrigation method do you use?

Jo Hay: We use center-pivot irrigation and K-line sprinklers. Ideally, we would have liked the whole thing under center-pivot irrigation so that we wouldn't have to move it ourselves every day, but our rolling hills aren't suitable for that. We use center pivots where we can and use K-line irrigation on the rest of it, including the funny angles and corners. The K-line sprinklers are good, but we would like to move to fixed grid as time and income allow.

Irrigation Leader: How long have you been irrigating that land?

Jo Hay: Since late 2017. We are shareholders in NOIC. Our property is the second-to-last farm on the second stage of that scheme.

Irrigation Leader: When did NOIC start its operations?

Jo Hay: NOIC irrigates from the Waitaki River. Water is distributed to farmers via an underground pipe network that delivers pressurized water to each farmer's offtake. There has been a staged development of the scheme. The stage 1 build started in 2004 and began delivering water in 2006. This saw 10,000 hectares (24,710 acres) irrigated with 4 cubic meters per second (141 cubic feet per second) of water. There



Friesian bulls on Ross and Jo Hay's farm.



A Zimmatic center pivot fitted with hill joints manufactured by Lindsay Corporation.

were extensions to the scheme from this period; stage 2 was completed in 2017 and currently irrigates approximately 20,000 hectares (49,421 acres). The reliability of water from NOIC meant that many farmers bought shares to add resilience and certainty to their farming businesses.

Irrigation Leader: What is NOIC like today?

Jo Hay: NOIC is a pressurized piped system that is capable of irrigating approximately 26,000 hectares (64,247 acres) of productive farmland. The scheme has been designed to deliver water to the farm gate at a rate of 0.4 liters (0.014 cubic feet) per second per share, which is equivalent to 3.5 millimeters per hectare (0.14 inches per acre) per day. Water is delivered to the farm boundary on demand at approximately 5 bar pressure (72.5 pounds per square inch), meaning most farms do not require any further pumping.

Growing up in North Otago in the 1980s and 1990s, I saw what this area was like in a drought, and I'll never forget it. The town was struggling, the economy was not in great shape, schools were closing, and communities were dwindling. Today, I can see the positive changes that have come with irrigation. Schools are full, and farming businesses are growing and employing staff. A sheep farm that supported one family is now a dairy farm that supports three families. Sports clubs and community groups are thriving. You only have to look at the economic changes that irrigation brought to the area to know that it was an incredibly good investment.

Irrigation Leader: So, each farmer owns a given number of shares, and each share equates to a certain volume of water?

Jo Hay: Yes. One share gives you 0.4 liters (0.014 cubic feet) per second. Dairy operations work on one share per hectare. Other farming types, such as sheep and beef farmers, can stretch that water further. Here in Herbert, our soils are a lot heavier, which enables us to irrigate 1.4 hectares with 1 share.

Irrigation Leader: Now that the irrigation scheme is in place, is the water supply pretty steady? Is there a need to expand the storage capacity or the scheme?

Jo Hay: The Waitaki River, which we irrigate from, is highly reliable because Meridian Energy has to maintain a minimum flow. As a changing climate brings challenges in the future, reliability could fall and disruptions occur. Capturing and storing water isn't something we can discount, but the reliability of our water means this isn't a pressing issue. NOIC has unsold shares, so at this point, we do not need further capacity within the scheme. Ultimately, having all shares allocated would result in cost efficiencies for our farmer shareholders.

Irrigation Leader: How would you describe the value that is added to your operations by irrigation?

Jo Hay: It is hard to put a monetary figure on it, but it has given our farming business greater reliability and resilience. In this region, we have dry summers and autumns. I grew up

with drought after drought. Before irrigation, our farming business struggled to finish cattle. Of the 2 years that the cattle were on farm, one of them was bound to be dry, which would result in us selling them due to not having enough feed. Farming with a changing and challenging climate has meant many years of peaks and troughs. Irrigation helps reduce the troughs. Even though we are not fully irrigated, the irrigation we do have gives our system resilience.

Irrigation Leader: You supply specialized products such as lamb to restaurants around the world. Would you talk about that niche?

Jo Hay: We supply Silver Fern Farms, which is a large cooperative. We have worked hard to position our business to supply what it needs when it needs it. Particularly with our cattle and winter lamb, we are trying to take the peaks and troughs out of our business. Our sheep and beef animals are rotationally grazed on pasture and are antibiotic free. We take care to look after our livestock, the people within our business, and our environment to the best of our ability. This results in a high-value product that can be sold to discerning customers.

Irrigation Leader: Tell us about some of the industry groups that you are involved with.

Jo Hay: Along with my role as a director with NOIC, I am on the steering committee for North Otago Sustainable Land Management (NOSLaM). NOSLaM's vision is to have an environment we are proud of, a vibrant community, and strong agriculture in North Otago. We work with farmers and educate them on good management practices. We work with other community groups and schools, supporting them in educating children. Currently, the focus is on the science of healthy soils.

I also sit on the Beef and Lamb Farmer Council, which covers the Central South Island. Our role is to advise and guide our extension managers in the development and delivery of innovative tools and services to support informed decisionmaking and continuous improvement in farming systems.

I am a cofounder of Lip Gloss and Gumboots, a group for women in North Otago who want to gain skills and confidence in order to contribute to their farming businesses. Often, women come to the farming business by default, meaning they marry a farmer. But many have amazing skills that they can contribute to the family business. A full range of content, including practical on-farm business skills and personal development, is covered.

Irrigation Leader: Would you talk about water quality issues and the regulatory pressures that farmers are under?

Jo Hay: There is a large tide of regulatory change coming at farmers in New Zealand. It is difficult, but as with any change, you need to keep a growth mindset and look for an opportunity.


The Intensive Winter Grazing regulations have seen a lot of back and forth between those who write policy and those who implement it. The initial policy was seen as impracticable and received a lot of pushback, resulting in it being changed. While this has been going on, farmers, catchment groups, and industry bodies have gotten on with the necessary changes. Some wintering practices were not good enough, and by explaining the reasons for changes and providing examples of what good practices look like, a lot of on-farm practices have markedly improved. Now, when you go for a drive during the winter, you see a large array of good management practices in action.

Stock exclusion from waterways is important. We do not want to have *E. coli* and sediment entering the waterways. Those are things that we recognized early on in our farming business, and we have worked hard to exclude our stock. We are starting to carry out riparian planting not only along our waterways but also in what are deemed *critical source areas*—wet spots where there is potential for nutrient runoff or sediment to reach a waterway.

Irrigation brings a level of resilience to our business that enables us to adapt and make these changes.

Irrigation Leader: Is there anything you would like to add?

Jo Hay: We need to challenge the idea that irrigation means agricultural intensification and start talking about how irrigation means resilience for food production and security. That is what I want people to understand: Irrigation does not mean negative farming practices. In fact, we irrigators go through stringent audits. The auditors expect high-quality on-farm practices and environmental guardianship. This is a good thing, because it gives credibility to what we do as irrigators. Food producers want to do the right thing for the environment.

We need to have some serious conversations about water storage and allocation and how stored water can be used better in the future to help us adapt to a changing climate. Water storage is critical. New Zealand's fresh water is an amazing resource, but with a changing climate, we need to think long into the future, particularly about how we will store and harness fresh water, not just for food production but also for drinking water. This will guarantee resilient and thriving communities for generations to come. 



Jo Hay is a director of the North Otago Irrigation Company. She can be contacted at bonesandjo@gmail.com or +64 (027) 289 6396.

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A scenic photograph of a beach. In the foreground, a wide, sandy path covered in numerous footprints leads from the bottom center towards the water. The path is flanked by tall, green grasses and some small shrubs. In the middle ground, the calm, turquoise water of a lake or sea meets the shore. The background is a vast, blue sky filled with scattered white and grey clouds. The overall atmosphere is peaceful and inviting.

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Melanie Brooks, CEO, MHV Water, New Zealand

Tom Knutson: 20 Years of Title Transfer



Sherman Dam and Reservoir.

Tom Knutson was the general manager of central Nebraska's Loup Basin Reclamation District and its daughter districts, Farwell Irrigation District and Sargent Irrigation District, when Loup Basin completed a title transfer from the Bureau of Reclamation in 2002. Now, 20 years later, he is helping other districts buy back their assets as the president of Water Management Solutions LLC. In this interview, Mr. Knutson tells Irrigation Leader the story of how the districts pulled off the deal—and what they gained along the way.

Irrigation Leader: Please introduce yourself and tell us about your background.

Tom Knutson: I am a farm boy from Minnesota. I graduated from South Dakota State University with a geography degree and a minor in economics. My first job was as a water resources planner for the South Dakota Department of Natural Resources in Pierre, South Dakota. After a year, I took a job as a project manager for the Oahe Conservancy Subdistrict in South Dakota, which was trying to build a 190,000-acre irrigation project in the James Valley. That got me interested in irrigation. In the late 1970s, after a few years of political opposition and President Carter putting the project on the hit list, the composition of the Oahe board changed in an election, and the new board decided in a six-to-five vote to stop the construction of the project. I ended up back in Pierre, working for the Department of Natural Resources as supervisor of the State Water Plan. The governor appreciated my work and offered me an appointment to

work with cities in the state as a coordinator for grants for water and sewer projects. When that governor was appointed ambassador to Singapore, Lieutenant Governor Wollman, who succeeded him, asked me to stay on in that capacity.

A new governor was elected, Bill Janklow, a Republican, who offered me the job of executive director of the South Dakota Water Development Task Force. This was after he had fired all the people above me and I was next in line to get the axe. He said, "I like your work ethic. What party are you?" I was a young kid at the time, and I said, "Norwegian." He laughed and said, "You're now a Republican, and you're hired." I worked with the governor, two state senators, two state house members, and six representatives from local conservancy districts in the state. That job only lasted 18 months before the funding ran out, but in it, I learned a lot about water politics, testifying before committees, and attempting to work out differences of opinion with those who had diverse views.

Then, I moved to Omaha and went to work for the Missouri River Basin Commission, which was trying to resolve issues between states. It was quite an eye-opener for a person who thought those issues were already solved. The Missouri River Basin Commission, along with other river basin commissions, was dissolved by President Reagan, and so I moved back to South Dakota.

The Oahe Conservancy Subdistrict was having an election for directors. I decided to be the campaign manager for three people running for the board. I wrote ads for the paper and sang songs on the radio from an apartment, and we won the election. On a vote of six to five, I was hired as the general

manager of the Oahe Conservancy Subdistrict. Within a year, we had the minority on the board suing the majority in a case called *Nassig v. Knutson*, and in May 1984, I asked Governor Janklow to call a special session to eliminate the state's six subdistricts. I testified before the legislature and said I was looking forward to unemployment given the harassment, the lawsuits, and the misinformation that people had used to stop the irrigation project. A law was passed to eliminate subdistricts and replace them with water development districts starting in January 1985.

In December 1984, I applied for the position of general manager of the Loup Basin Reclamation District, the Farwell Irrigation District, and the Sargent Irrigation District in Nebraska. Loup Basin Reclamation District is the parent entity of the Farwell and Sargent Irrigation Districts. I was offered the position and started in January 1985. I did not know a soul in the four-county area, nor did I know much about their projects. However, I did understand water politics, Reclamation contracts, and how to supervise personnel. The first few months were a learning curve, but I used my sense of humor and a little bit of luck to fit into what became a nearly 30-year career with the districts.

Irrigation Leader: Please tell us about the title transfer you completed for the districts.

Tom Knutson: In addition to the repayment contracts that the Farwell and Sargent Irrigation Districts had with Reclamation for their canal systems, Loup River Reclamation District had a water service contract with Reclamation that covered the use of Reclamation's dams and reservoirs. That water service contract had to be renewed every 4 years. We found out that when the contract expired in 1998, Reclamation was going to make things hard for us by upping the water service contract from \$1.95 an acre to as much as \$12.95 an acre. I took this information to the board. We were told that we would get less water out of the reservoir for crops. My board members said, "What can we do?" I responded, "I think it's time to just buy it."

It took us until 2002 to complete the title transfer process. It required a lot of work. We worked with members of Congress, commissioners of Reclamation, the secretary of the interior, and the governor of Nebraska. We were initially told that it would cost \$39.5 million to buy out our project. At the end of the day, we probably wouldn't have gotten it done if it weren't for United States Senator Bob Kerrey and his friendship with Secretary of the Interior Bruce Babbitt. That friendship went back to the days when they were both governors. Senator Kerrey called me one afternoon and said, "Tom, this is Senator Bob Kerrey. I need you in Washington, DC, in the morning. We're going to meet with Secretary of the Interior Bruce Babbitt." I caught a red-eye flight out of Lincoln. At the meeting the next day, Senator Kerrey introduced me to Secretary Babbitt. He said, "Here's what I'm going to do, Mr. Secretary. I'm going to introduce a bill



A plaque at the Loup Basin Reclamation District's headquarters recognizes the leadership team that carried out title transfer in 2002.

that authorizes this project to be transferred for \$5 million." Secretary Babbitt said that that number was a long way from \$39.5 million. Senator Kerrey said, "But is it worth \$39.5 million?" They went off and huddled, and when they came back, Senator Kerrey said, "You've got a deal."

However, I still wasn't satisfied. The bill said that we must have a memorandum of understanding with Reclamation that considered all current liabilities. I was concerned about drainage from Sherman Reservoir, which went through Loup City, and the possibility that we might have to fix that drainage system right away. I had several engineers tell me how much it might cost, and we went and discussed it with Reclamation. Reclamation said, "How much do you need that \$5 million price reduced?" I said, "Let's cut it in half and you'll have a deal." Reclamation would not bite. I had a conference call with the regional director's office, and I purposely sent Senator Kerrey the phone number. He jumped on the call unannounced and said that I was going to offer Reclamation \$2.5 million and that the bureau could take it or leave it. Reclamation accepted the \$2.5 million offer, and that is what we paid when we bought the project on November 21, 2002. That was a moment I will never forget.

Irrigation Leader: What infrastructure was transferred to your ownership?



Construction on Milburn Dam in 2007.

Tom Knutson: We received all the facilities that we used for the Farwell and Sargent Irrigation Districts, including diversion dams—Milburn Dam, which was part of Sargent’s system, and Arcadia Dam and Sherman Dam and Reservoir, which were part of Farwell’s system—and the canal system with all the laterals and drainage, which was used by both districts. Today, those facilities are owned by the parent entity, the Loup Basin Reclamation District. It has taxing power over everyone in the four-county area, including the cities, to help fund any needed repair projects.

Irrigation Leader: What new responsibilities did you take on when the infrastructure was transferred over to your ownership?

Tom Knutson: As I saw it, there was hardly anything new, because there were ongoing water supply and operations agreements among Loup Basin, Farwell, and Sargent. The only new thing was that now we could adjust the dates of the water season and the date when we would start filling the reservoir. Of course, we had to buy liability insurance for the reservoir.

Irrigation Leader: It’s been more than 20 years now. Looking back, what would you say the results of title transfer have been?

Tom Knutson: I would say there have been tremendous benefits. One of the biggest benefits was that we could hire our own engineering people and get studies done for half the cost we paid before. We could put a rehabilitation project together and get it completed for probably about a third of the cost that we would have had to pay Reclamation under contract. A good example was a project at Sargent’s Milburn Diversion Dam. We had had issues with one of the sluice gates since the dam’s construction in 1958. We decided to go ahead and fix it after the title transfer. My boards were concerned about the cost, which Reclamation had estimated at about \$3 million. But then, we found out from our engineering people that we could do the project for \$1 million.

Another example is that we were able to put in an entirely new dam on the Middle Loup River on the condition that we put in a fish ladder. That project was paid for entirely with a U.S. Fish and Wildlife Service grant. We never would have gotten that kind of opportunity had our infrastructure still been owned by Reclamation.

After the transfer, we were no longer obligated to do all the reporting to Reclamation on acreage limitation, water usage, weed reports, and so on. The board of directors can now



Gates at Sherman Dam.

change the acreage limitation law—it has done so and could make further changes in the future if it chooses to do so. That could present an opportunity for farmers to farm a little bit more. The directors are elected by the farmers themselves.

Irrigation Leader: Based on your experience, what advice do you have for districts that are thinking about pursuing title transfer?

Tom Knutson: My advice is don't sit on it and think about it. Make a decision and do it. Get started right away, because you have been renting your project for years with a lot of Reclamation overhead. Now is the time to own it. The Dingell Act, which passed in 2018, enables districts to do a transfer in 2–3 years.

Since I left Farwell, I started a company, Water Management Solutions LLC. I've been involved in title transfers in Nebraska, North Dakota, Washington State, and Wyoming. All of them are considering title transfer.

The Twin Loups Irrigation District in Nebraska is moving forward with title transfer. It has a reservoir called Calamus that irrigates about 57,000 acres and a reservoir called Davis Creek. The district has completed the first two steps of title transfer and now is working on a memorandum of agreement with Reclamation.


Irrigation Leader: You talked about some of the legal mechanisms that can be used for pursuing title transfers, such as the Dingell Act. Are there any changes that you think are necessary to streamline the process?

Tom Knutson: Yes. Why does Reclamation put the districts through the pain of studies when it could shortcut the

studies while still meeting the requirements of the law? I still contend that the federal government goes overboard with the number of studies it requires. It lives in the land of “what if?” even when it comes to things that are near certainties. My question is: Can that district handle the facilities and take care of the project on its own? If the answer is yes, why put it through the pain of studying whether it can?

Back in the 1960s and 1970s, it was conventional wisdom that after a local sponsor repaid Reclamation for its water service contract and repayment contract, it would become the owner of the infrastructure. That all changed at some point, and I do not believe it should have.

Irrigation Leader: Looking back, would you still make the same decision again to do the title transfer?

Tom Knutson: It's been a great transfer. I'm so proud to have been a part of it. If you were to arrive at Farwell, Nebraska, today for a water user meeting, you would not find one user who would tell you it was a bad decision. 



Tom Knutson, the former general manager of the Loup Basin Reclamation District and the Farwell and Sargent Irrigation Districts, is the president of Water Management Solutions LLC. He can be contacted at tom.knutson819@gmail.com or (308) 754-8699.



Greg Curtis

Water Superintendent,
Nampa & Meridian
Irrigation District
Nampa, Idaho

Number of employees: 49

Size of service area in acres: 69,000

Amount of water diverted for irrigation per year in acre-feet: 200,000

Main crops irrigated: Alfalfa, grains, seed crops, sugar beets, residential lawns and gardens

Predominant irrigation methods: Gravity flow, furrow, pressurized

Irrigation Leader: Tell us about yourself and your district.

Greg Curtis: I was born in Boise, Idaho, and grew up near Kuna, where my family raised beef cattle on a small farm. I completed a vocational-technical program at Boise State University in 1988. In 1996, I went to work for the Nampa & Meridian Irrigation District (NMID) as the mechanic on the operations and maintenance crew. After 10 years on the crew, I was made the crew foreman; I then became the assistant water superintendent; and in 2011, I became the water superintendent.

NMID's main canal system, the Ridenbaugh Canal, which diverts from the Boise River, was constructed privately in the 1870s and was bought and sold many times. By 1891, it had 100 miles of main canals and 153 miles of lateral ditches. NMID was formed in 1904 and acquired the Ridenbaugh system. Originally, the district was to serve around 23,000 acres of land around the growing towns of Nampa and Meridian. In 1909, NMID began talks with Reclamation to increase the size of the district by roughly 40,000 acres. Several feeder canals were extended to replenish the Ridenbaugh Canal with water to accommodate the additional lands. By 1910, the application of water to the desert landscape had caused some of our area to become waterlogged. In 1915, NMID entered into contracts to create 11 major drains to address this. Today, NMID covers 69,000 acres and manages over 500 miles of waterways to deliver gravity-flow and pressurized irrigation to our patrons.

Irrigation Leader: Why did you initially decide to pursue title transfer?

Greg Curtis: NMID initially decided to pursue title transfer in the 1980s. NMID had been issuing license agreements for encroachments on our facilities for many years. The federal government only held title to roughly 5 percent of our facilities—mainly the 11 drains that were created in 1915 and a few of our lateral ditches. At this time, the cities were asking for permission to put public pathways along our drainage facilities. They would go to Reclamation and NMID for permission, but many times, the district's needs were overlooked. This led to tension between NMID and Reclamation for really the first time in our history.

Irrigation Leader: Tell us about the process.

Greg Curtis: I cannot take credit for the actual process of title transfer, but I do admire my predecessor's efforts. The process was long and was challenged by many. The cities were worried that NMID would not allow pathways at all, and neighboring

irrigation entities were concerned that some of our contract obligations with them would change. It took a long time to address these concerns. The actual process of title transfer had not yet been modified to what it is today. Through the assistance of organizations like Family Farm Alliance and our congressional delegation, NMID finally received title in 2001.

Irrigation Leader: What infrastructure was transferred over to your ownership? What new responsibilities did you take on?

Greg Curtis: NMID received title transfer to all the lateral ditches and drains, which made up only a small percentage of our system. Our responsibilities really did not change; title transfer just eliminated a lot of the confusion when dealing with development.


Irrigation Leader: What happened with nearby ancillary facilities, such as marinas and recreational land?

Greg Curtis: New public pathways along our facilities continue to be requested, and where they can be accommodated, they are approved. We work hard to maintain good relationships with the local cities, counties, and neighboring districts. I believe all the concerns that were raised by others during the process have been long since forgotten.

Irrigation Leader: What have the results been? Were there any outcomes that you did not expect?

Greg Curtis: After title transfer, we did not see drastic changes. NMID continues to deal with rapid growth, but now there is no confusion about who leads the discussion. Many times, we have been able to get our facilities upgraded to improve our system and lessen our maintenance during the process.

Irrigation Leader: Was title transfer the right choice?

Greg Curtis: Title transfer had positive outcomes for us, and we continue to promote it to others who ask. Those considering title transfer should seek advice from those who have completed the process and ask themselves what they hope to achieve. If the decision is made to start the process, plan to commit the resources and time needed to get it completed. Make contact with those whose support you will need, explain what you're working toward, and work to allay any initial concerns. 

Greg Curtis is the water superintendent of the Nampa & Meridian Irrigation District. He can be contacted at gcurtis@nmid.org or (208) 466-0663.



Aaron Dalling

Executive Director,
Fremont-Madison
Irrigation District
St. Anthony, Idaho

Number of employees: 4

Size of service area in acres: 285,000

Amount of water diverted for irrigation per year in acre-feet: 900,000

Main crops irrigated: Alfalfa, barley, potatoes, potato seed, quinoa, wheat

Predominant irrigation methods: Sprinkler, flood

Irrigation Leader: Tell us about yourself and your district.

Aaron Dalling: I have been working for Fremont-Madison Irrigation District for 6 years. Fremont-Madison provides supplemental storage water to roughly 44 canal companies and 285,000 acres in Fremont, Madison, and Teton Counties in Idaho. We hold the storage contracts for 150,000 acre-feet of storage water in Island Park and Grassy Lake Reservoirs. The canal companies within our district hold the natural-flow water rights. Roughly 900,000 acre-feet of natural flow and storage water is diverted for irrigation within our irrigation district each year.

Irrigation Leader: Why did you initially decide to pursue title transfer?

Aaron Dalling: The district pursued title transfer to save money and gain control of the facilities. Our title transfer was completed in 2004.

Irrigation Leader: Tell us about the process.

Aaron Dalling: The process took some time and money but was well worth it. I was not with the district at the time, but it dedicated time, energy, and financial resources to get it done. It was one of the first title transfers in Idaho.

Irrigation Leader: What infrastructure was transferred over to your ownership? What new responsibilities did you take on?

Aaron Dalling: We received the Crosscut Diversion Dam, the Crosscut Canal, and five groundwater wells.

Irrigation Leader: What happened with nearby ancillary facilities, such as marinas and recreational land?

Aaron Dalling: In our title transfer, we didn't receive any ancillary facilities.


Irrigation Leader: What have the results been? Were there any outcomes that you did not expect?

Aaron Dalling: The results have been great. It has saved us a lot of money over the years, including a rental fee we had to pay the Bureau of Reclamation for the groundwater wells. We have also been able to plan and complete our own maintenance on the facilities, saving money. Additionally, a few years after the title transfer, we partnered with a local electrical co-op to build a hydropower plant on the Crosscut Diversion Dam. We are now producers of green energy, and once the debt on the power plant has been serviced, we will hopefully have an additional source of revenue.

Irrigation Leader: Was title transfer the right choice?

Aaron Dalling: Title transfer for these facilities was without question the right choice for our irrigation district. We do believe title transfer has to be considered on a case-by-case basis. We are currently considering title transfer on another facility, and it is not as clear cut.

Irrigation Leader: What advice do you have for people who are thinking about pursuing title transfer?

Aaron Dalling: I think every situation is different. Take the time to make sure it's the right choice for your entity. If it is, dedicate the time to getting it done in as timely a manner as possible. Keep your foot on the gas! 

Aaron Dalling is the executive director of the Fremont-Madison Irrigation District. He can be contacted at aaron.fmid@myidahomail.com or (208) 403-8474.



Dan Davidson

Manager,
Minidoka Irrigation
District
Rupert, Idaho

Number of employees: 27

Size of service area in acres: 100,000

Amount of water diverted for irrigation per year in acre-feet: 320,000

Main crops irrigated: Alfalfa, potatoes, small grains, sugar beets

Predominant irrigation methods: Center pivots, wheel lines

Irrigation Leader: Tell us about yourself and your district.

Dan Davidson: Minidoka Irrigation District is located in the Burley/Rupert area of southern Idaho. We provide irrigation water on both the north and south sides of the Snake River. We have over 400 miles of canals, laterals, and drains and deliver water to 77,000 acres of mostly agricultural lands within a 100,000-acre service area. The project was built in the early 1900s. The primary crops are sugar beets, potatoes, alfalfa, and small grains.

Irrigation Leader: Why did you initially decide to pursue title transfer?

Dan Davidson: The main reason for seeking title transfer was to reduce regulatory issues. We had and still have a great working relationship with the Bureau of Reclamation, but before title transfer, whenever we wanted to make changes to the system, we needed to get approval from Reclamation. There were instances in which the approval time frame did not match our maintenance season requirements, and we would have to postpone the project.

Irrigation Leader: Tell us about the process.

Dan Davidson: We began the process by signing an agreement with Reclamation that outlined the tasks required to complete the transfer. Reclamation provided a cost estimate in the transfer document and dedicated staff to the project.

Irrigation Leader: What infrastructure was transferred over to your ownership? What new responsibilities did you take on?

Dan Davidson: The transfer included all irrigation works, office buildings, and pumping plants as well as the project lands adjacent to canals that we felt were needed to continue operating the system. We didn't take on any new

responsibilities after the transfer. Before the transfer, we approved all crossing agreements, worked with developers and contractors, and approved all changes to the irrigation system. Reclamation also had the responsibility to perform these tasks, so title transfer removed some redundancy.

Irrigation Leader: What happened with nearby ancillary facilities, such as marinas and recreational land?

Dan Davidson: There were no changes.


Irrigation Leader: What have the results been? Were there any outcomes that you did not expect?

Dan Davidson: The results have all been positive. We can address water user needs faster because we do not have to go through the Reclamation approval process.

Irrigation Leader: Was title transfer the right choice?

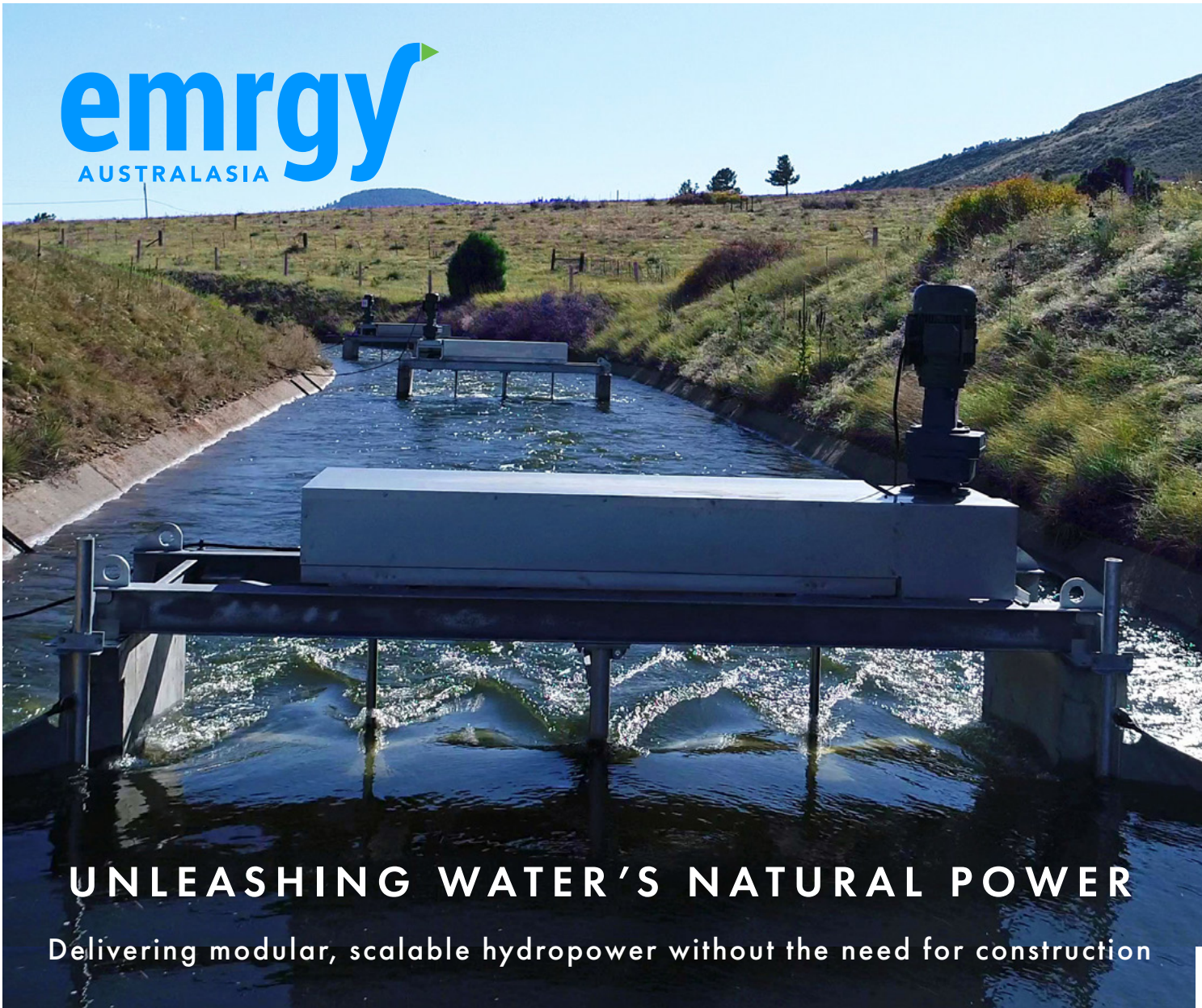
Dan Davidson: Yes. Over the last few years, we have had a lot of housing growth in our area. We can process change requests in a matter of weeks instead of 4–6 months.

Irrigation Leader: What advice do you have for people who are thinking about pursuing title transfer?

Dan Davidson: Make sure you build a good working relationship with local Reclamation staff. You will work through the title transfer process together. It is much easier to accomplish if you are working as a team. You may have lots of questions from water users and the local community. Make sure everyone understands the reasons for pursuing a title transfer and get the message out early. 

Dan Davidson is the manager of the Minidoka Irrigation District. He can be contacted at dan.mid.pmt@gmail.com or (208) 436-3188.

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Keith Denos

General Manager,
Provo River Water
Users Association
Pleasant Grove, Utah

Number of employees: 18

Size of service area in acres: 53,000 (authorized);
8,000 (currently irrigated)

Amount of water diverted for irrigation per year in acre-feet: 100,000 (authorized); 80,000 (delivered); of that,
10,000–20,000 for irrigation

Main crops irrigated: Alfalfa, apples, corn, fruit trees, grain,
pasture

Predominant irrigation methods: Sprinkler, flood

Irrigation Leader: Tell us about yourself and your district.

Keith Denos: I am a professional engineer and have been the general manager of the Provo River Water Users Association (PRWUA) for almost 28 years. I have a bachelor of science in civil and environmental engineering and a master of science in irrigation engineering from Utah State University and an MBA from Utah Valley University.

PRWUA was formed in 1935 for the purpose of sponsoring the Bureau of Reclamation's Provo River Project (PRP). PRWUA is a private nonprofit corporation with 19 shareholders that include metropolitan water districts, cities, irrigation companies, mutual water companies, and a conservation district. Although about half the shareholders are nominally private, approximately 88 percent of the shares are controlled by public entities, and about the same percentage of the project's water supply is delivered for public purposes. The major facilities of the PRP include Deer Creek Dam and Reservoir (153,000 acre-feet total storage capacity), the Weber-Provo Diversion and Canal (1,000 cubic feet per second [cfs] capacity), and the Duchesne Diversion and Tunnel (629 cfs capacity). In addition, the former Provo Reservoir Canal (PRC) was enclosed in a 10-foot-diameter steel pipeline to create the Provo River Aqueduct (PRA, 612 cfs capacity). The title to the aqueduct and corridor was transferred from Reclamation to PRWUA in 2014.

Irrigation Leader: Why did you initially decide to pursue title transfer?

Keith Denos: PRWUA identified a number of reasons to investigate piping the PRC, including safety, seepage losses, and water quality concerns. As the project to enclose the canal was formulated, it became apparent that federal funds were not available for this effort. A Utah Board of Water Resources (BOWR) loan was identified as a funding possibility, but at the time, Utah state law required that the BOWR take temporary title to the facility or water rights as collateral for any project it funded. Because the PRC was owned by Reclamation as part of the PRP and the PRP water rights were nominally held by Reclamation

as well, there appeared to be no way to access the BOWR funding. However, the concept of partial title transfer was raised—could PRWUA pursue the transfer of the title of just a portion of the PRP and then convey title temporarily to the BOWR in exchange for state funding? It seemed a high mountain for a small water users association to climb, but with board approval and guided by knowledgeable federal lobbyists, we started the title transfer process.

Irrigation Leader: Tell us about the process.

Keith Denos: PRWUA's title transfer process made the most rapid progress from start to bill passage of any title transfer up to that time. In 2004, less than 2 years after PRWUA decided to pursue title transfer, President Bush signed the Provo River Project Transfer Act. Along the way were myriad meetings with Reclamation's local, regional, and Washington, DC, offices; local Utah water districts; Utah's congressional delegation; and state officials. PRWUA's title transfer quest was so intricately linked with the canal enclosure project that it's sometimes difficult to separate the two efforts.

The 2004 act contemplated the transfer of title to the canal and corridor to PRWUA prior to the canal enclosure project. However, during the 4 years of negotiations among the parties to define and agree to the enclosure project, pressure from other water districts led to the requirement that PRWUA complete the enclosure project prior to title transfer. Amendments to Utah law and the Utah Constitution during this period enabled PRWUA to borrow state funds for the enclosure project without needing to convey title to facilities or water rights to the BOWR. The 2004 act required the approval of Reclamation, the U.S. Department of the Interior (DOI), and local Utah water districts before title transfer could be effected, and this approval was withheld until the pipeline was built. Once the aqueduct was complete, the transfer of title was further delayed because of a technicality in the language of the act. Reclamation and DOI solicitors determined that the original act specified that Reclamation would transfer a canal and corridor to PRWUA and that because we now had a pipeline, not a canal, the transfer could not occur. We were

furious but couldn't sway the bureaucrats. It took another 2 years—adding up to 10 years since the original act was signed—and another congressional act to change the word *canal* to *pipeline* so that Reclamation could legally transfer title to PRWUA. This finally happened in 2014. Our record time from title transfer idea to signed bill didn't actually translate to a speedy title transfer after all.

Irrigation Leader: What infrastructure was transferred over to your ownership? What new responsibilities did you take on?

Keith Denos: The PRA, its corridor, and PRWUA's office-and-shop parcel were transferred to association ownership. No other PRP lands or facilities were transferred to PRWUA. Reclamation retained title to the dam; the reservoir; and all the other major diversion, canal, and tunnel facilities. Reclamation also remained the nominal owner of PRWUA's PRP water rights.

The transfer of the PRA and the corridor didn't change PRWUA's operations routine much, although the operation of an aqueduct was very different from that of an open canal. However, now that the corridor was owned by a private organization, it wasn't protected against adverse possession. We knew going into this that we would incur some costs and difficulty in cleaning up the right of way and claiming PRWUA's rightful ownership of the corridor, and it has been every bit the challenge we expected and then some. At the time of title transfer, over 100 encroachments of adjacent parcels had been identified. Most of these encroachments were resolved in the first few years after title transfer. The 7-year adverse possession clock expired about 15 months ago, and prior to that, all adjacent landowners with unresolved encroachments were formally notified that they were occupying association land and given the opportunity to settle the dispute. Most have now settled, but some have proceeded to litigation, unfortunately.

Irrigation Leader: What happened with nearby ancillary facilities, such as marinas and recreational land?

Keith Denos: Another responsibility PRWUA took upon itself as the owner of a 21-mile corridor, now home to a public recreation trail, was comprehensive general liability insurance coverage. This had heretofore never been considered, but with an estimated 1 million annual recreator-days on the new canal trail, it was now a necessity. Insurance premiums increased annual operations and maintenance (O&M) costs for the PRA by approximately \$200,000, but the cost is shared with the county and the cities through which the canal trail passes, so the effect on association shareholders is somewhat tempered.


Irrigation Leader: What have the results been? Were there any outcomes that you did not expect?

Keith Denos: Operating one facility outside Reclamation's oversight and involvement while being subject to that oversight for all other project facilities hasn't changed PRWUA's approach to the O&M of the PRA. Reclamation's periodic facility reviews are a thing of the past, but PRWUA has always been proactive in the O&M of project facilities, and we don't believe the inspection and O&M of the PRA have suffered at all. We maintain a strict maintenance and inspection schedule for the PRA and probably get eyes on every foot of the 21-mile pipeline as often or perhaps more often than would be required by Reclamation protocols. Eleven years after the enclosure of the canal and 9 years after the (final) title transfer, I can't say that there have been any unforeseen outcomes.

Irrigation Leader: Was title transfer the right choice?

Keith Denos: I believe that title transfer, despite all the hiccups in our case, was the right choice for PRWUA. We didn't end up needing to do it in order to receive funding, as we initially thought, but we now enjoy private ownership of our aqueduct corridor and our office/shop parcel.

Irrigation Leader: What advice do you have for people who are thinking about pursuing title transfer?

Keith Denos: I encourage project sponsors to investigate whether title transfer is right for their situation. It's not a panacea; a district won't automatically be spared all the hassles that accompany water infrastructure O&M and management just because the underlying ownership has changed. PRWUA no longer needs to ask Reclamation's permission for activities, license agreements, and adjacent landholder agreements related to the PRA. However, we also no longer enjoy the adverse possession protection afforded us by the U.S. government holding title to the corridor; significant additional effort has been required to clean up the encroachments over the years. It's a mixed bag, but I would encourage water users to look into it, ask some of us who've successfully transferred title, and consider whether title transfer might be beneficial given their specific circumstances. 

Keith Denos is the general manager of the Provo River Water Users Association. He can be contacted at gkd@prwua.org or (801) 796-8770.



Charles Freeman

General Manager,
Kennewick Irrigation
District

Kennewick, Washington

Number of employees: 62 full time, 30 temporary

Size of service area in acres: 20,201

Amount of water diverted for irrigation per year in acre-feet: 102,674

Main crops irrigated: Alfalfa, apples, cherries, grapes, hay, orchards, turf grass

Predominant irrigation methods: Center pivot, drip, microspray

Irrigation Leader: Tell us about yourself and your district.

Charles Freeman: We serve 20,201 acres in a highly urbanized area. We serve over 25,500 accounts that represent more than 65,000 individuals. I was a public works director and city manager for two different cities before coming to the district in November 2009.

Irrigation Leader: Why did you initially decide to pursue title transfer?

Charles Freeman: The local Bureau of Reclamation office wasn't staffed with enough personnel to meet the urbanization-driven demand to subdivide farmland into subdivisions. The district was liable for all damage that would result from a canal failure. It didn't make sense for us to not assume official ownership of the facilities we had been operating for over 60 years.

Irrigation Leader: Tell us about the process.

Charles Freeman: The board tasked me with first exploring what title transfer meant, what the process would be, what it would cost, and so on. After I briefed the board, it passed a resolution authorizing me to work with Reclamation, Water Strategies, and Tom Knutson on the project. I had many, many meetings with Reclamation's Pacific Northwest regional director; its Columbia-Cascades Area Office; its Washington, DC, headquarters; Congressman Dan Newhouse; and Kiel Weaver. Toward the end, we had bimonthly meetings. We also met with the Yakama Nation and the Umatilla Tribe to get their support. It was important to do so very early in the process.

Irrigation Leader: What infrastructure was transferred over to your ownership? What new responsibilities did you take on?

Charles Freeman: Approximately 72 miles of canal, over 300 miles of pipeline, and various appurtenances. We did not take on any new responsibilities.

Irrigation Leader: What happened with nearby ancillary facilities, such as marinas and recreational land?

Charles Freeman: There was nothing of that sort.

Irrigation Leader: What have the results been? Were there any outcomes that you did not expect?

Charles Freeman: Because we only took ownership of the transferred works, nothing changed.

Irrigation Leader: Was title transfer the right choice?

Charles Freeman: For us, it absolutely was. We can be more responsive to the needs of our community now that Reclamation isn't involved.

Irrigation Leader: What advice do you have for people who are thinking about pursuing title transfer?

Charles Freeman: I don't know why more districts don't pursue title transfer. It is process driven. My advice is to involve local tribes, county and city governments, and local congressional folks very early in the process. [IL](#)

Charles Freeman is the manager of Kennewick Irrigation District. He can be reached at cfreeman@kid.org.

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Steven Jolly

Manager,
Arbuckle Master
Conservancy District
Davis, Oklahoma

Number of employees: 5 full time, 1 part time
Amount of water diverted per year in acre-feet: 14,400
(municipal and industrial use)
Main crops irrigated: n/a
Predominant irrigation methods: n/a

Irrigation Leader: Tell us about yourself and your district.

Steven Jolly: I've been the manager of Arbutckle Master Conservancy District for 22 years as of January 1. The district was formed on January 1, 1968. We supply raw water to Ardmore, Davis, and Wynnewood, Oklahoma, and to the Wynnewood Refining Company. The City of Sulphur has been a member since the beginning but uses groundwater for municipal use.

Irrigation Leader: Why did you initially decide to pursue title transfer?

Steven Jolly: The original contract between the district and the Bureau of Reclamation talked about what the United States "shall" do upon the completion of repayment, so it left no doubt that the title of the Wynnewood Aqueduct Pumping Plant and the 18½-mile Wynnewood Aqueduct would be transferred to the district. What might have been added with some work were the dam and the 190-acre property downstream.

Irrigation Leader: Tell us about the process.

Steven Jolly: The process that we encountered was somewhat simpler than I've heard it is now. In 2012, after the last installment payment was made to the United States, Reclamation began the process to make the title transfer happen. The main reason we chose not to accept full title to the dam and properties was that I didn't want to take the chance of severing our working relationship with Reclamation, which has been very good over the years. Reclamation still oversees operations and provides guidelines and help for anything associated with the Arbutckle Dam Project. Because the original legislation authorizing the Arbutckle Project only directed Reclamation to transfer title to the water conveyance facilities upon payout, the district sought special legislation to authorize the transfer of the title to the district office and maintenance compound as well. Although it took several years to move this legislation through Congress, the transfer of title to these additional facilities moved very quickly once it was authorized.

Irrigation Leader: What infrastructure was transferred over to your ownership? What new responsibilities did you take on?

Steven Jolly: The pipeline, property easements, and the pumping plant were deeded to the district. Our new responsibilities were linked only to the fact that we no longer had Reclamation's input in operating those transferred items and no longer had to follow Reclamation's standard operating procedures. In fact, we still operate those items according to the same criteria that Reclamation had us use beginning in 1968.

Irrigation Leader: What happened with nearby ancillary facilities, such as marinas and recreational land?

Steven Jolly: The recreational facilities are overseen by the National Park Service as part of the Chickasaw National Recreation Area.


Irrigation Leader: What have the results been? Were there any outcomes that you did not expect?

Steven Jolly: The results have been very good. We still have a great working relationship with Reclamation and the National Park Service. We consider them our partners in this operation.

Irrigation Leader: Was title transfer the right choice?

Steven Jolly: I believe that the limited title transfer that we did was right for us. It would be nice to own the other property, but as I said before, I didn't want to lose the benefit of having Reclamation a phone call away if we needed it.

Irrigation Leader: What advice do you have for people who are thinking about pursuing title transfer?

Steven Jolly: Take your time, think through every scenario that could happen in the future, and make sure the final decision is the one that works best for your project. 

Steven Jolly is the manager of the Arbutckle Master Conservancy District. He can be contacted at sjolly@sbcglobal.net.



Steve Kasowski

Chair, Board of Directors,
Dickey-Sargent
Irrigation District
Oakes, North Dakota

Number of employees: 2

Size of service area in acres: 4,500

Amount of water diverted for irrigation per year in acre-feet: 3,500

Main crops irrigated: Corn, potatoes, soybeans

Predominant irrigation methods: Center pivot, sprinkler

Irrigation Leader: Tell us about yourself and your district.

Steve Kasowski: I am the chair of the Dickey-Sargent Irrigation District board of directors and a potato farmer. We irrigate about 4,500 acres with the primary crops being corn, potatoes, and soybeans. Our diversions vary by year, averaging about 3,500 acre-feet per year.

Irrigation Leader: Why did you initially decide to pursue title transfer?

Steve Kasowski: We viewed title transfer as an opportunity to gain local control, lower our operating costs, and escape certain burdensome federal regulations, such as the Reclamation Reform Act (RRA).

Irrigation Leader: Tell us about the process.

Steve Kasowski: The process was arduous. It started in 2015 and was completed in October 2020. Initial progress was slow. The federal title transfer legislation passed in 2018 jump-started the process. There were countless meetings and conference calls and considerable work had to be performed by our staff. At times, we doubted the transfer could be accomplished. One by one, issues were addressed, and the transfer became a reality. We were fortunate to enjoy outstanding support from our congressional delegation—United States Senator John Hoeven in particular—and from the Garrison Diversion Conservancy District. Another important factor was that the U.S. Department of the Interior delegated an associate deputy secretary to shepherd title transfer projects, including ours.

Irrigation Leader: What infrastructure was transferred over to your ownership? What new responsibilities did you take on?

Steve Kasowski: All the infrastructure built specifically for our project was transferred: pumping plants, canals, buried drains, open drains, buildings, and transmission lines.

Irrigation Leader: What happened with nearby ancillary facilities, such as marinas and recreational land?

Steve Kasowski: There were no nearby ancillary facilities.


Irrigation Leader: What have the results been? Were there any outcomes that you did not expect?

Steve Kasowski: The results have been positive. In addition to being able to make decisions on the local level, we now have the option of pursuing non-Reclamation programs to replace our aging facilities, such as our canal liner, which is nearing the end of its design life. And of course, we don't have to do any more RRA forms!

Irrigation Leader: Was title transfer the right choice?

Steve Kasowski: We have no doubt that title transfer was the right choice. We were faced with making a major investment to upgrade facilities we did not own and as owners, we are now able to purchase insurance coverage for the pumping plants, office, and shop.

Irrigation Leader: What advice do you have for people who are thinking about pursuing title transfer?

Steve Kasowski: Anyone considering a title transfer needs to know that they are entering into a seller-buyer dynamic. Thorough knowledge of your project history, contracts, and agreements is vital because part of a title transfer is determining the purchase price you will pay for your project. 

Steve Kasowski is the chairman of the board of the Dickey-Sargent Irrigation District. The district can be contacted at dsid@drtel.net.



Matt Lukasiewicz

General Manager,
Loup Basin Reclamation
District, Farwell Irrigation
District, and Sargent
Irrigation District
Farwell, Nebraska

Number of employees: 20

Size of service area in acres: 68,586

Amount of water diverted for irrigation per year in acre-feet: 108,000

Main crops irrigated: Corn, soybeans

Predominant irrigation methods: Gravity, center pivot

Irrigation Leader: Tell us about yourself and your districts.

Matt Lukasiewicz: I was hired in April 2011 as assistant general manager so that I could take over as general manager for Tom Knutson, who was soon to retire. The job requires being the manager of three districts with three boards of directors: Loup Basin Reclamation District, Farwell Irrigation District, and Sargent Irrigation District. Loup Basin is the parent entity of the other two irrigation districts and owns their water rights and all their infrastructure. Farwell serves 53,868 irrigated acres via a diversion from the Middle Loup River into a 69,000-acre-foot reservoir and a canal system. Sargent serves 14,718 irrigated acres from a direct-flow diversion out of the river into its canal system.

Irrigation Leader: Why did you initially decide to pursue title transfer?

Matt Lukasiewicz: Title transfer was completed in 2002, which was before I came to work for the districts. At the time, the district had to decide whether to pursue title transfer or contract renewal. The districts had the foresight to realize that we were already doing the things we needed to do as owners of the projects and could do it successfully and more cheaply without Reclamation's oversight.

Irrigation Leader: Tell us about the process.

Matt Lukasiewicz: The process of title transfer is different now than it was in the late 1990s and early 2000s, when it literally took an act of Congress. Being able to convince federal and state agencies took so much time that the process extended through multiple presidential administrations, which often erased any progression made. This also meant that there were a lot of demands for studies, agreements, and other negotiations to reach our goal.

Irrigation Leader: What infrastructure was transferred over to your ownership? What new responsibilities did you take on?

Matt Lukasiewicz: The transfer was a full transfer, meaning we acquired the equipment, land rights, infrastructure, water rights, and easements. This also meant that all local and state

agreements were now put in our hands to continue. Taking all of this over added nothing to what we had already been doing when we were under the federal government, and now all decisions are made locally.

Irrigation Leader: What happened with nearby ancillary facilities, such as marinas and recreational land?

Matt Lukasiewicz: Everything stayed the same regarding ancillary facilities. Having local control has made it easier to work with these facilities, which we already had relationships with, and to increase our communication with them.


Irrigation Leader: What have the results been? Were there any outcomes that you did not expect?

Matt Lukasiewicz: We feel that our facilities are in better shape and under better control and that we have a greater opportunity to improve our services to our farmers while providing environmental, recreational, and economical benefits to others.

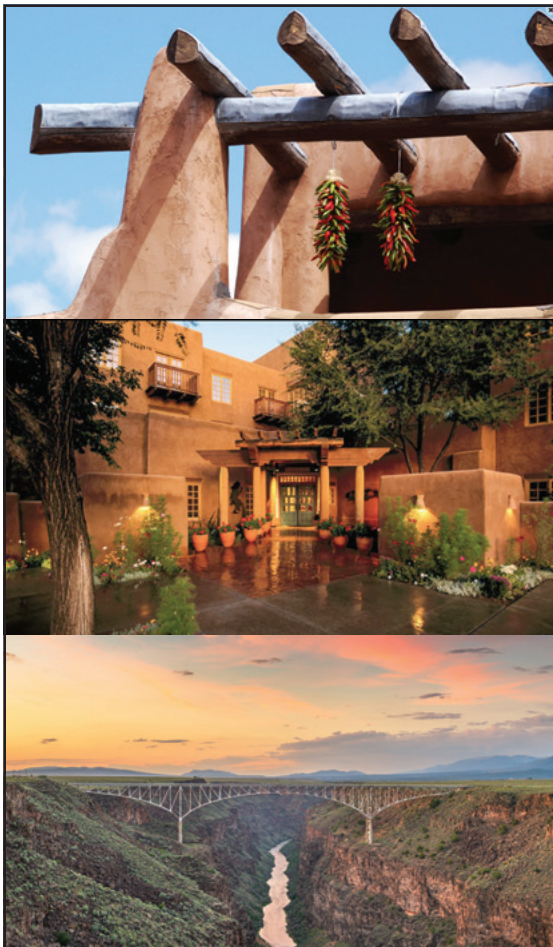
Irrigation Leader: Was title transfer the right choice?

Matt Lukasiewicz: To this day, we have no regrets. We will make our last bond payment this fall on the money we needed to purchase title from Reclamation, which will free up even more resources to advance our goals of providing much-needed water for irrigation.

Irrigation Leader: What advice do you have for people who are thinking about pursuing title transfer?

Matt Lukasiewicz: It was worth the effort for our districts, but I understand that others may feel that having Reclamation on their side is beneficial. I guess you need to consider your district as a whole and where your district wants to be in another 50 years. The title transfer process may seem long, expensive, and tedious, but the results can far outweigh the efforts. 

Matt Lukasiewicz is the general manager of the Loup Basin Reclamation District, the Farwell Irrigation District, and the Sargent Irrigation District. He can be contacted at mluk@gwestoffice.net or (308) 336-3341.



SAVE THE DATES

INAUGURAL MEETING

Rio Grande River Water Users Association

Scheduled for October 3-5, 2023

Hotel Santa Fe, The Hacienda & Spa
1501 Paseo De Peralta, Santa Fe, NM 87501

The purpose of the meeting is to create a forum for exchanging ideas and perspectives on the Rio Grande River use, management, and challenges while developing common objectives and solutions.

Registration and hotel information to be posted soon on the *Irrigation Leader* magazine website at www.irrigationleadermagazine.com

11TH ANNUAL IRRIGATION LEADERS WORKSHOP

Sponsored by

Irrigation Leader

SAVE THE DATES

January 23–25, 2024

**Crowne Plaza
Phoenix-Chandler Golf Resort**
1 N. San Marcos Place
Chandler, Arizona 85225

Registration and hotel information to be posted soon on the *Irrigation Leader* magazine website at www.irrigationleadermagazine.com



Justin Temple

Manager,
A&B Irrigation District
Rupert, Idaho

Number of employees: 29

Size of service area in acres: 83,000

Amount of water diverted for irrigation per year in acre-feet: Approx. 230,000

Main crops irrigated: Alfalfa, corn, dry beans, potatoes, small grain, sugar beets

Predominant irrigation methods: Pivot, sprinkler

Irrigation Leader: Tell us about yourself and your district.

Justin Temple: What is now A&B Irrigation District was a Bureau of Reclamation project and was operated by Reclamation from 1954 to 1966. A&B was formed as an entity in 1960 and took over the district's operation and maintenance in 1966. Approximately 75 percent of the district is irrigated with groundwater; the other 25 percent is irrigated with surface water. We pump 100 percent of the water we deliver to our landowners, whether from deep wells or river pumping stations.

Irrigation Leader: Why did you initially decide to pursue title transfer?

Justin Temple: The main reason we pursued title transfer was to eliminate the additional layer of administration from Reclamation. We have to get projects done within a short time frame during the nonirrigation season, and sometimes by the time we received Reclamation's approval to pipe a lateral, drill a new well, or create a different point of diversion, we'd have to push a project to the next year. The board members and management at the time believed that the district's patrons should hold title to the district because they had completed their repayment obligations.

Irrigation Leader: Tell us about the process.

Justin Temple: It can be a lengthy and costly process. For us, it took longer and cost more than we initially expected. One of the reasons for that was that ours was one of the first transfers under the Dingell Act of 2019, which allowed Reclamation to transfer title to qualifying entities without a separate act of Congress. We had to work through a lot of issues, comparing the intentions of the bill and the actual language of the bill, which didn't always align.

Irrigation Leader: What infrastructure was transferred over to your ownership? What new responsibilities did you take on?

Justin Temple: All our pumping, delivery, drainage facilities, and electrical facilities were transferred. One thing that surprised us and drew out the process was that although our repayment obligation included all those facilities, it didn't include the land that was under facilities such as our offices. We had to go through the federal appraisal process to purchase the lands we deemed necessary for our transfer, which took time. A&B

already operated and maintained the system, so we didn't take on much in terms of new risks and responsibilities. However, for any land we took over, we also had to take on any current Reclamation easements, which included permits Reclamation had with utilities whose infrastructure crossed district facilities as well as grazing and other agriculture lease contracts that Reclamation had on withdrawn land (i.e., land withdrawn from the Bureau of Land Management and placed under Reclamation's authority).

Irrigation Leader: What happened with nearby ancillary facilities, such as marinas and recreational land?

Justin Temple: Reclamation kept ownership of some fish and game tracks, but A&B was provided an easement for any facilities that encumbered on those. Reclamation still has withdrawn land that was set aside for district purposes that we're not using right now but could potentially use in the future.

Irrigation Leader: What have the results been? Were there any outcomes that you did not expect?

Justin Temple: There was no change in our operation and maintenance.

Irrigation Leader: Was title transfer the right choice?

Justin Temple: I believe it was the right choice not only for us, but for Reclamation. It relieved some of the restrictions on how we operated and maintained our district and freed Reclamation staff for other responsibilities.

Irrigation Leader: What advice do you have for people who are thinking about pursuing title transfer?

Justin Temple: The number 1 piece of advice I would offer is that everybody needs to be on the same page. You need to have the full support of your board of directors, the management team, and the district landowners. Everybody needs to have that common goal, and everyone needs to understand what you'll be receiving from the transfer. Finally, having a good relationship with Reclamation is key.

Justin Temple is the general manager of A&B Irrigation District in Rupert, Idaho. He can be contacted at jtemple@abirrigation.org.

Past Bureau of Reclamation Title Transfers

The Bureau of Reclamation has transferred 43 projects to private owners since 1996.

Project/Facility	State	Year Transferred
Rio Grande	New Mexico and Texas	1996
Vermejo	New Mexico	1996
Boulder City Pipeline	Nevada	1996
San Diego Aqueduct	California	1997
Oroville Tonasket Unit	Washington	1998
Canadian River Project	Texas	1999
Burley	Idaho	2000
Clear Creek (Central Valley Project)	California	2001
Palmetto Bend	Texas	2001
Griffith	Nevada	2001
Nampa & Meridian	Idaho	2001
Carlsbad	New Mexico	2001
Colorado–Big Thompson (partial)	Colorado	2002
Middle Loup (Pick-Sloan Missouri Basin Project – NE)	Nebraska	2002
Sugar Pine (Central Valley Project)	California	2003
Sly Park (Central Valley Project)	California	2003
Harquahala Valley	Arizona	2004
Fremont-Madison	Idaho	2004
Carpinteria	California	2006
Provo River Project (Partial)	Utah	2006
Wellton Mohawk (partial)	Arizona	2007
American Falls Res. District #2	Idaho	2008
Colorado Big Thompson	Colorado	2008
Palo Verde Diversion	Arizona and California	2008
Yakima Tieton	Washington	2009
McGee Creek	Oklahoma	2009
Montecito	California	2010
Provo River (Partial)	Utah	2014
Strawberry Valley Project Power Distribution System	Utah	2015
Humboldt (Partial)	Nevada	2016
Goleta	California	2018
Arbuckle Project	Oklahoma	2019
Emery County Project	Utah	2020
Uintah Basin Replacement Project	Utah	2020
Oakes Test Area, Garrison Diversion Unit	North Dakota	2020
North Side Pumping Division, Minidoka Project	Idaho	2021
Gravity Division, Minidoka Project	Idaho	2021
Hyrum Project (Partial)	Utah	2021
Provo River Project (Partial)	Utah	2021
Middle Rio Grande (Partial)	New Mexico	2021
Chief Joseph Dam Project (Partial)	Washington	2021
Yakima Project (Partial)	Washington	2022
Newlands Project (Partial)	Nevada	2022

Source: www.usbr.gov/title/transferred.html

Martin Dana of Hobas Pipe: Pipe Solutions That Last

Hobas Pipe USA Inc. is the leading North American producer and supplier of corrosion-resistant fiberglass pipe products for water- and wastewater-related infrastructure. In this interview, which was conducted in person at the 10th Annual Irrigation Leaders Workshop, held in January 2023 in Phoenix, Arizona, Hobas CEO Martin Dana told Irrigation Leader about the company's recent expansion into the irrigation and municipal water markets and the challenges of demand and supply planning in today's market.

Irrigation Leader: Please tell us about your background and how you came to be in your current position.

Martin Dana: I am the president and CEO of Hobas Pipe. I was born and raised in Oregon and attended the University of Oregon. I worked in the steel pipe industry throughout most of my career, spending 18 years with Northwest Pipe Company. In 2018, I was tapped to join Hobas Pipe as its vice president of sales, and in 2020, I took over as president and CEO.

Irrigation Leader: Please tell us about Hobas.

Martin Dana: Hobas makes corrosion-resistant, fiberglass-reinforced polymer pipe for the water and wastewater industries. We also make unique, noncircular fiberglass shapes and manholes. The primary markets we serve are the municipal water, wastewater, irrigation, and hydroelectric industries.

We have a 40-acre manufacturing campus located in Houston, Texas. We are proudly produced in the United States and believe strongly in the Buy American requirements tied to federal spending.

Hobas Pipe USA is owned by Wietersdorfer Holding, a family-owned group of companies headquartered in Austria that has been operating since 1893. We are the family's only U.S.-based operation. When I started here in 2018, we had about 75 employees, and today we have 270 employees, so it has been a fun 5-year journey. Recently, the company invested \$60 million in new products and technologies that allowed us to expand into water, primarily into the irrigation and municipal water markets.

Irrigation Leader: What are your main products for the irrigation industry?

Martin Dana: Whether it is reducing or eliminating the need for treatment for the management of vegetation, eliminating



Martin Dana at the January 2023 Irrigation Leaders workshop in Phoenix.

losses due to evaporation or infiltration, eliminating access to the water system, or providing access across the channel for equipment or wildlife, Hobas's fiberglass-reinforced polymer mortar (FRPM) pipe provides a versatile and sustainable solution. It is a lightweight, corrosion-resistant pipe installed with only a rubber-tire backhoe, standard lengths from 20 to 40 feet, and diameters from 12 to 126 inches. Whether you are piping a channel or providing a pressure system (up to 450 pounds per square inch) for the delivery of water, Hobas FRPM pipe will meet your needs.

Irrigation Leader: With 270 employees, are you running multiple shifts?

Martin Dana: Yes. We primarily run a two 12-hour shift operation. Of course, this might fluctuate by department based on the volume of work. We have an incredible workforce and a very low turnover rate.

The majority of our employees are Spanish speaking, and in order to bridge the communication gap, we provide training for all employees who want to learn either Spanish or English. We do this to ensure good communication between all employees, regardless of their first language.

Irrigation Leader: What are the specifications of the products that you offer?



Hobas pipe in a flume at Washington State's Naches-Selah Irrigation District.

Martin Dana: All our pipe is produced to ASTM standards and project specifications. We produce pipe in diameters from 12 to 126 inches and for pressures up to 450 pounds per square inch. Our noncircular production line uses a mold-based process and allows for a wide range of customization to meet our customer's needs. It can produce pipe in essentially any shape our customers desire. The circular products are available in a variety of lengths up to 40 feet.

Irrigation Leader: What diameter product do you make the most of?

Martin Dana: The average diameter of the pipe we produce is approximately 55 inches—it varies each year in the 54–60 inch range. We have two different processes for producing circular pipe. One method is mold based and produces discrete lengths of 20 feet; the other method is a continuous process that makes one diameter at a time. The mold-based operation has nine mold bays and four feeder arms. I think of this as 3-D printing. Each arm enters a mold that is spinning at a very high speed and deposits sand, resin, and glass per a predetermined recipe. This process creates a great deal of flexibility by allowing us to produce up to nine different sizes at the same time. In that operation, we produce pipe in diameters from 18 to 126 inches. Our new continuous method is a single production line that produces diameters from 12 to 120 inches. This equipment is designed to make a high volume of pipe of one single diameter. This is an ideal method of producing pipe for irrigation projects.

Irrigation Leader: What is the wall thickness on your top-pressure pipe?

Martin Dana: The wall thickness varies depending on the needs of the project. For projects that use jacking, we have produced pipe with walls up to 5 inches thick. For projects that use direct-bury installation methods, which include most irrigation projects, the wall thickness does not determine the strength or performance of the product. When designing pipe, we take into account all the features of the project, including the type of soil our pipe will be installed in, the depth at which it will be buried, and the pressure. With all these inputs, we can design a pipe that will meet the needs of the project.

Irrigation Leader: Are you experiencing any supply chain issues?

Martin Dana: The supply chain challenges really hit us in 2021. If you recall, Winter Storm Uri hit Texas in February of that year, and the subsequent power outages created a complete breakdown in the resin supply chain. The effect of that storm was worse than that of any recent hurricane that has hit the Gulf Coast. Due to the limited supply of resin, we ended up qualifying material from suppliers outside the United States. One of our suppliers today is in Colombia. That diversification helped solidify our supply chain and get us through one of our biggest challenges.

Irrigation Leader: Where does the majority of your resin come from?



Hobas's continuous filament-wound pipe production process.



HOBAS supplied a custom-built 96-inch pipe tee along with two custom elbows to create a V-shaped siphon for the Naches-Selah Irrigation District. It also supplied 3,600 feet of 96-inch pipe.

Martin Dana: The majority of our resin comes from the United States. We have three very qualified suppliers. However, in 2020, with the pandemic, there was a significant uptick in the demand for resin. Many of the items people were consuming contained resin, including paint, boats, showers, tubs, and pools. By diversifying our supply chain, we have assured ourselves of a steady supply of resin for our growing business.

Irrigation Leader: Is your factory busy right now?

Martin Dana: It is. We work much like construction companies: off backlog. Most of our direct orders come from contractors that do municipal work. We ended last year with the largest backlog in our history: almost \$200 million. In 2018, we shipped \$85 million of pipe, and last year, we shipped \$176 million. We've seen growth in volume and in the number of clients who are converting from other materials to fiberglass pipe.

Irrigation Leader: What is your current lead time for product delivery?


Martin Dana: Right now, we can deliver in 6–8 weeks, which is a return to industry standard. With the recent investments we have made, our pipe production capacity has increased by 50 percent. Today, we do not have any issues with delivery or pipe availability.

Irrigation Leader: What is your general lead time for fitting fabrication?

Martin Dana: Fittings are usually 12–14 weeks from order placement. Fittings are made out of the pipe produced for the specific project. The timely delivery of fittings is always a challenge, since you need enough time to produce the pipe and then make the fittings. The best way to deal with that is to preplan together—to sit down and make sure we have a plan in place to meet the project's needs. For me, it is all about taking a partnering approach that includes the owner, the contractor, and the pipe supplier.

Irrigation Leader: What is your vision for the future?

Martin Dana: Our vision is to ensure that today's solutions do not become tomorrow's problems. We want to see municipalities and irrigation districts select long-lived products, and that is certainly one of the advantages of our product. I don't believe we should be rebuilding our infrastructure every 50, 100, or 150 years.

My grandson turned 1 earlier this year, and 50 years from now, I don't want him to have to rebuild our infrastructure. Why not make smart choices today and provide peace of mind for future generations? 



Martin Dana is the president and CEO of Hobas Pipe USA Inc. He can be contacted at mdana@hobaspipe.com.



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Paul Meeks of Worthington Products: Safety Solutions for Canals and Irrigation Facilities



The handhold features on Worthington's highly visible bright yellow booms are visible here.

Worthington Products was founded in 2001 around the TUFFBOOM line of waterway barrier products. Today, the company is active around the world and has expanded into fish guidance systems, public safety boat barriers, safety signage, and more. As President and CEO Paul Meeks tells us, the company continually innovates in its mission of guaranteeing public safety, whether by integrating handholds into its booms, changing their color to make them more visible, or figuring out how to deploy them to best deflect debris and people from spillgates and other dangerous structures. In this interview, Mr. Meeks tells us more about why irrigation district managers should consider Worthington Products to help guarantee safety and reduce liability.

Irrigation Leader: Please tell us about your business lines that would be of interest to irrigation districts.

Paul Meeks: Irrigation districts are typically dealing with smaller intake structures and narrower canals than we see at hydroelectric power plants, for instance. Our standard TUFFBOOM product line, which we've had on the market for over 25 years and is still the world's most widely recognized floating waterway barrier product, keeps debris and people away from dangerous intakes. In situations in which clients don't want to keep debris away, we have other products. Our BOATBUSTER barrier, our buoy line, and our line of floating signage products are public safety features that help people in the water exit before they get themselves into a dangerous situation that might lead to injury or fatality.

Irrigation Leader: What are the features of those products that help people get out of the water?

Paul Meeks: We changed the top of our TUFFBOOM product to include molded handholds. A person could use



A Worthington-designed debris boom deflected debris away from the spillgates and water intakes at Matahina Dam in New Zealand after an extreme rainfall event.

those handholds to slide themselves to shore or to climb up onto the boom. We patented that feature, and we're proud of it, because a big focus of our effort is public safety.

We have also designed these booms so that they're angled upstream to downstream. We put them in what's called a safety V shape so that people and debris will be pushed off to either the left or the right side of the boom line. That way, first responders don't have to get into the water to rescue people. Something similar is true of our sign floats: They have a series of pontoons that look like the front end of a boat hull. They also have a cable that runs above the water that someone in the water or in a boat can grab hold of to get themselves to safety.

Irrigation Leader: Do you have any irrigation district clients in the western United States?

Paul Meeks: We do—mainly for debris control rather than for public safety. In some cases, our debris booms have kept our clients' intakes from being entirely blocked with debris. For example, we had an interesting project in an irrigation canal on the Jordan River outside Salt Lake City. The district had a real problem because there was a lot of population growth in that area, and a lot of trash was getting into important estuaries and protected water areas. The district put out our boom lines to capture that floating trash before it got into the environment.

Irrigation Leader: Would you talk about the thought that went into designing the color of your products?

Paul Meeks: For the first 23 years of our existence, we manufactured all our booms in international safety orange, except in Canada, where we made them yellow. We recently stopped to ask ourselves why this exception existed, and

we found that there was science behind it. Yellow is the brightest color on the brightness spectrum, which means it is the easiest to see. In our research, we found that 8 percent of males and 2 percent of females are colorblind. To them, orange looks gray. If they're out on the water, which is like sitting in an infinity pool, they really can't see orange booms. Even for those who are not colorblind, orange is harder to see on a cloudy day or in low-light conditions such as at dawn or dusk. That's because orange is only 63 percent as bright as yellow. Even if a boom is used for debris control or ocean cleanup, it serves a public safety function, and we want to make sure that people in the water can see it. We found that yellow offered the greatest visibility and didn't cost a penny more to make. Our executive team sat down and said, "Why the heck would we continue to make orange booms if we can save one life by going to yellow? Let's do it." Beginning in 2020, we began to encourage the entire United States market, and now the worldwide market, to go with yellow. I'd say that we are at about an 85 percent acceptance rate in the United States, and what's great about this success story is that it is being accomplished without additional regulation. It simply makes sense, and when people understand the difference between yellow and orange, the decision to go yellow is straightforward and simple. You might say it is a no-brainer.

Irrigation Leader: You make a lot of signs for dams and other hydro facilities. Do you also sell safety signs to put near canals?


Paul Meeks: Yes, we do. I sat on the signage standards steering committee for the Federal Emergency Management Agency (FEMA), and we were able to issue a whole new set of signage standards for dam owners in the United States. When I visited irrigation districts, hydroelectric dams, or nonpowered dams, I usually thought the signage was terrible. There was no standard or consistency. Most of the signs we saw were more like an art project than something designed to warn people about dangers and potentially save lives. We decided we were not going to wait for the government to get standards, and in fact, we didn't want to see the government requiring certain things. Instead, we decided to create a sign program to encourage our customers to have proper signage on their dams. It is based on the best practices for signage around dams worldwide. Fortunately, the FEMA steering committee on signage was an example of government working properly, because within 15 months, we were able to come up with standards and issue a document for best practices that is being applied across the United States for dam owners. The goal is to have consistent sign standards across the country so that if you're used to boating in one state and you go to another, you'll understand the signage. For irrigation companies, having a proper signage program lowers the risk of a public safety incident and the liability that goes along with that.

Irrigation Leader: Do you provide safety booms for floating solar and marine energy systems in waterways?

Paul Meeks: Floating photovoltaic solar (FPV) is gaining attention around the world. The challenge for FPV operators is twofold: first, they need to protect the upstream face of the structure from being impacted and potentially torn from its moorings by floating debris, and second, if the FPV installations are mounted upstream of spillgates, they need to be designed so that if they break free, they will not float down to block those gates. Lastly, there is a need to keep curious boaters away. Worthington provides upstream and downstream barrier systems to prevent these occurrences. There was an incident in Japan not long ago in which floating debris dislodged a large floating solar plant, which drifted into the dam and caught fire. Had a barrier system been installed above and below the FPV, this incident might not have escalated.

Irrigation Leader: If irrigation district managers are reading this and considering why they might need your products, what would you tell them?

Paul Meeks: District managers should consider Worthington for two primary reasons: public safety and floating debris control. On the safety side, people approach irrigation canals and intakes without appreciation for the dangers that are involved. They see these structures as places for recreational fun. We've witnessed a surge in the number of kayakers and paddleboarders in recent years. Social media posts of people pulling off stunts at these facilities are at all-time highs. I serve on multiple committees for public safety around dams that keep track of safety incidents and deaths. What struck me when reviewing the data was that nearly 20 percent of injuries and fatalities were happening to the first responders sent in to do the rescues. The goal is to put a mitigation strategy in place that allows for self-rescue, prevents people from entering dangerous areas, and provides advance warning of the dangers. This is often accomplished with booms, buoys, signage, and audible devices.

The second aspect of this is debris management. Large rain events or large flow events carry with them high volumes of floating debris and trash that blocks spillways and intakes and piles up on trash racks. This reduces water flow, creates a dangerous safety situation, and is costly to clean up. Worthington's floating barriers have been used by irrigation managers quite successfully to solve these issues. 



Paul Meeks is the president and CEO of Worthington Products. He can be contacted at pmeeks@tuffboom.com or (330) 452-7400.



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Irrigation Leader

Upcoming Events

April 12 Nebraska Water Resources Association, Water Roundtable, Lincoln, NE

April 17–19 National Water Resources Association, Federal Water Issues Conference, Washington, DC

April 23–25 American Society of Irrigation Consultants, National Conference, Scottsdale, AZ

May 5–6 National Conference of State Legislatures, Spring Conference, Palm Springs, CA

May 9–11 Association of California Water Agencies, Spring Conference, Monterey, CA

May 10 Nebraska Water Resources Association, Water Roundtable, Lincoln, NE

June 11–13 Idaho Water Users Association, Water Law and Resource Issues Seminar, Sun Valley, ID

June 14–16 Texas Water Conservation Association, Summer Conference, The Woodlands, TX

June 22–23 Tristate Tour and Meeting (Idaho, Oregon, Washington), Spokane, WA

July 17–19 American Water Resources Association, Summer Conference, Denver, CO

July 19–21 North Dakota Water Resource Districts Association and North Dakota Water Education Foundation, Joint Summer Water Meeting and Executive Briefing, Dickinson, ND

July 21–24 National Association of Counties, Annual Conference and Exposition, Austin TX

July TBD Groundwater Management Districts Association, Summer Conference, TBD, NM

August 2–4 National Water Resources Association, Western Water Summit, Medora, ND

August 14–16 National Conference of State Legislatures, Legislative Summit, Indianapolis, IN

October 3-5 Rio Grande River Water Users Association, Inaugural Meeting, Santa Fe, NM

October 8-14 *Municipal Water Leader*, Ancient Water Systems of Rome and Pompeii Tour, Italy

January 23-25, 2024 *Irrigation Leader*, Irrigation Leaders Workshop, Phoenix/Chandler, AZ

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