

A CENTURY OF COMMITMENT,
CONVEYANCE & CUSTOMER SERVICE

ANNUAL REPORT

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Source: KRCD

Mission

The Fresno Irrigation District's mission is to **PROTECT and MANAGE** the surface and groundwater resources of the District in order to meet the present and future water needs of the people and lands within the District.



A Letter From The General Manager



As the new FID General Manager, I'm excited to introduce our 2019 Annual Report.

Since taking the helm in January 2019, one of my goals was to increase communication with our growers and stakeholders. This annual report helps accomplish this by summarizing and highlighting key information about achievements, benchmarks, challenges, and milestones.

We are excited to celebrate FID's Centennial Anniversary – 1920 to 2020. Throughout the year, we will highlight the story of FID's century of conveyance, commitment, and customer service through a new page on our website (www.fresnoirrigation.com/centennial), storyboards in our reception area, and engagements with our partners. As we recognize our heritage, I am excited for the future and the opportunity to tackle challenges with the great team that I lead.

We are turning the page in water management with the North Kings Groundwater Sustainability Agency's (NKGSA) Groundwater Sustainability Plan (GSP) that was completed and adopted by its board on November 21, 2019. The GSP was submitted to the California Department of Water Resources (DWR) ahead of the January 31, 2020, deadline. FID is one of the founding members of the NKGSA, makes up the majority of the NKGSA area, and is proud of the plan it has helped develop. Through our collaboration and diligent work with multiple water agencies, municipalities, and stakeholders, we have set the framework to protect our water resources for the future.

In 2019, we also successfully negotiated a long-term contract with the backbone of our team, the FID staff of Operating Engineers Local 3 (OE3). OE3 and our management team developed a compensation and benefit plan to ensure we have a long-term and stable workforce to serve our growers and service partners. We are proud of the partnership we have with our employees. The FID team takes deep pride in the service we provide to our constituents and stakeholders.

In 2016, FID renewed the City of Fresno's nearly 40-year-old conveyance agreement. The conveyance agreement with the City of Clovis was updated in 2019. Both conveyance agreements allow for continued surface water deliveries to the cities' surface water treatment plants using FID's expansive system of canals and pipes, as well as provides long-term certainty for all partners involved. Additionally, FID completed negotiations on a trails agreement with the City of Fresno, aimed at maximizing the available trails along canals. The trails agreement is an example of the strong partnerships FID has with its urban stakeholders. A similar trails agreement with the City of Clovis is underway.

While new to the General Manager position, I am not new to FID. I have served as an FID team member for nearly 22 years as both an engineer and for the last six years as the Assistant General Manager. My goals are to ensure excellent customer service, communication with our stakeholders, and most importantly, to protect and deliver your water resources. If you ever have a question or concern, please do not hesitate to call the office. We have highly skilled, knowledgeable, and committed staff members here to assist you.

Sincerely,

A handwritten signature in blue ink that reads "William R. Stretch". The signature is fluid and cursive.

Bill Stretch
General Manager

WATER DELIVERIES

In continuing several years of unpredictable weather, the 2019 water year was characterized by a plentiful snowpack and an eight-and-a-half-month water delivery season, the longest in FID history. An average FID water season lasts six months (March-August).

FID's Water System Operators (WSO's) maintain the water schedule and manage deliveries to the FID growers and urban areas during the irrigation season.

As these operations require complex planning and constant monitoring of supply, FID's WSO's monitor and measure water flow to allow FID to keep their finger on the pulse of customer water needs. These monitoring efforts help make adjustments in deliveries to avoid service interruptions.



Surface water diverted to the Boswell Basins (N/W North and Jameson Avenues) serves to replenish the groundwater aquifer.



68,908 Acre-Feet
Diverted for Groundwater Recharge



31 (720 Acres)
FID Groundwater Recharge Basins



91 (1,320 Acres)
Fresno Metropolitan Flood Control Groundwater Recharge Basins



7 (650 Acres)
Cities of Fresno and Clovis Groundwater Recharge Basins

GOT WATER?...FID DELIVERS!

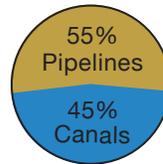
In 2019:



618,424 Acre-Feet
Delivered to FID Customers



4,000+
Customer Delivery Turnouts



680
Miles of FID Conveyance Facilities



138,475
Water Measurements Taken in the Field by Staff



112
Telemetry Remote Operation and Monitoring Sites



1,035,256
Miles Driven on Roads to Service Customers



The Gould Canal travels through the District from the headgates to deliver water into the District's conveyance system, crossing the USBR Friant Kern Canal.

CONSTRUCTION



Enterprise Canal Lining

FID currently has a range of construction projects underway to address immediate system needs, all while keeping an eye to the future to understand what needs are coming down the pipeline. The extended 2019 water season left a few short months at the beginning of the year, and a little over a month at the end of it, to accomplish much needed construction projects. In addition to projects constructed by FID, system improvements are also made by farmers, developers, and other public agencies under FID's direction.

In 2019, FID completed numerous canal lining projects throughout the District. Lining canals with concrete helps reduce maintenance costs, minimize seepage issues, and fortifies embankments. Additionally, FID's construction project list included pipeline and structure construction, as well as commencing construction of four groundwater recharge basin projects.

Pipeline Construction

FID has approximately 360 miles of pipelines. Approximately 45% are over 50 years old and reaching the end of their useful lives. Each year, FID replaces approximately 0.3% of the problematic sections of pipelines throughout the District. Much of FID's pipeline system is made out of cast-in-place concrete pipe (CIPCP), once the industry standard, but does not have the longevity and strength of modern rubber gasket reinforced concrete pipe (RGRCP). Every mile of RGRCP that goes in adds decades of new life to the pipeline helping to minimize water delivery interruptions.



Thompson Pipeline project to install 1/4 mile of 48" RGRCP.

Structure Construction

Along every canal and pipeline are numerous structures that are used to control water flow and divert water to customers. Structures are built in-line along pipelines to provide for new customer turnout locations. FID crews have successfully installed pre-cast concrete turnout structures on canals like the Enterprise Canal that are typically only shut down for one to two months each year. Pre-cast structures allow for the rapid installation of structures to minimize operational impacts to facilities.



Enterprise Canal Precast Turnout structure allowed for quick installation during short shut down period.

Completed Projects

Did you know that entities wishing to develop in the FID service area are required to account for impacted facilities? The developer projects, combined with projects completed by FID, provide new and improved infrastructure, further enhancing the FID conveyance systems. In 2019, these efforts resulted in:

- 1 Replacing **4,150** feet of old pipe with RGRCP
- 2 Replacing **2,600** feet of old pipe with PVC
- 3 Converting **1,950** feet of open canal to RGRCP
- 4 Installing **1,570** feet of canal lining
- 5 Installing **23,300** feet of all-weather road to improve access along canals

Basin Construction Recharge Basin Projects

- Central Basin Project (3 Sites)
- Wagner Basin Project



4 (150 Acres)
New recharge basins
under construction



10,600,000
Value of new basin projects

MAINTENANCE

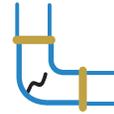
During the maintenance season (the non-water delivery season), when canals and pipelines are dewatered, FID maintenance crews are busy preparing for the next water season. These crucially important maintenance activities ensure the FID facilities and conveyance system function properly when it is time to deliver water to FID customers. With a maintenance season that varies in duration between three and nine months, a variety of maintenance activities are completed each year. Activities, such as rip-rap applications for erosion control, dredging, trash and debris removal, pipeline and structure repair, gate valve repair, and weed control all ensure the canals' integrities are maintained, and the proper amount of water reaches each customer.

FID maintenance crews spend a significant amount of time removing garbage and debris from its canals, some of which are located in urban areas. In 2019, 485 tons (970,000 pounds) of trash were removed from canals by the maintenance crews. FID continues to engage with the cities of Clovis and Fresno on this ever-growing problem existing along the banks traveling through the urban areas.

Maintenance Activities

- | | |
|---|---|
| 1 Pipeline and Structure Repairs | 7 Lining Repairs |
| 2 Turnout Gate Repairs | 8 Rip-Rap Application: Erosion Control |
| 3 Weed Control | 9 Trash, Weed, Debris Removal |
| 4 Dredging | 10 All-Weather Roads |
| 5 Canal Earthwork | 11 Basin Discing |
| 6 Brushing | 12 Maintenance Shop |

In 2019:



8,020

Hours of pipeline and structure repairs



2,460

Hours of turnout gate repairs or replacements



485

Tons of trash removed from canals



2,700

Miles of canal banks with weed treatments applied



122

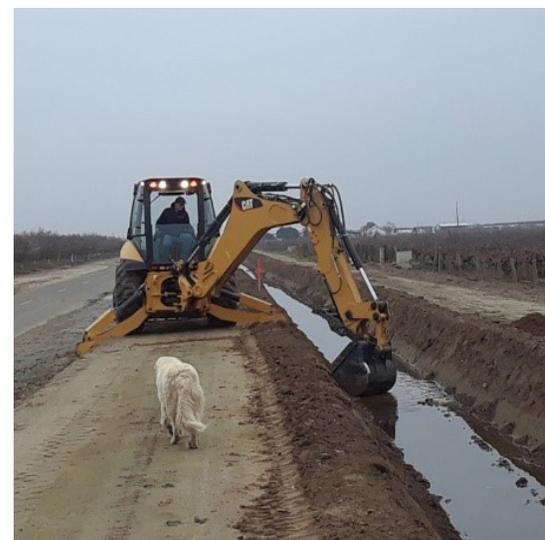
Miles of canals sloped and graded



Pipeline with crack and hole needing repair.



Rip-rap application to Enterprise Canal.



Backhoe used to remove sediment from canal and prepare canal for high flows during water season.

CROPPING INFORMATION

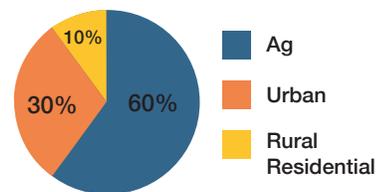
The makeup of crops and land use within FID's boundaries has an impact on water delivery planning and operations, from changing water demands to changing stakeholders.

As of 2019, almonds and vineyards make up the vast majority of crop acres, at 47,613 acres and 41,458 acres, respectively. Citrus was the third largest crop category at 13,980 acres. Vegetable and pasture acres rounded out the top five for the year at 5,428 acres and 3,361 acres, respectively.

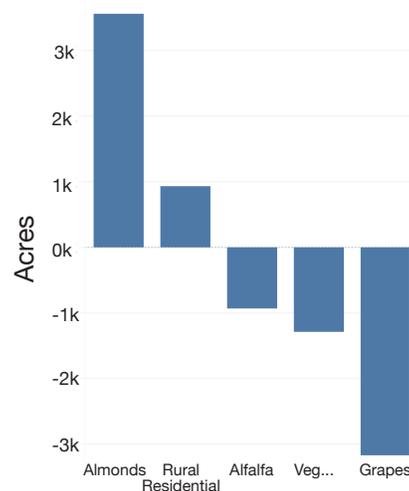


Almonds also led acreage changes in terms of land use within FID's boundaries, increasing by 3,560 acres, while grapes had the largest decrease in land use by seeing 3,164 acres removed. Rural residential was the only other land-use category, besides almonds, in 2019's top five changes to increase at all - a trend we predict will continue as Fresno County continues to see net population growth.

TOTAL FID ACREAGE: 250,000 AC



TOP 5 CHANGES 2018 - 2019



TOP 5 CROPS BY ACREAGE

1980 Crops

Grapes	76,508
Cotton	21,406
Pasture	18,391
Alfalfa	10,511
Almonds	10,214

1999 Crops

Grapes	79,940
Almonds	15,713
Citrus	9,628
Alfalfa	7,907
Pasture	4,826

2019 Crops

Almonds	47,613
Grapes	41,458
Citrus	13,980
Vegetables	5,428
Pasture	3,361

These numbers have been trending in these directions for some time. While almonds have more acres than any other crops today, with ever-increasing acreage, that was not always the case. Grapes held the top-crop spot by an incredible margin back in 1980 as well as in 1999.



CHALLENGES

Like many irrigation districts, FID faces challenges on multiple fronts that force serious conversations and decisive action. Whether these include attacks on our Kings River water rights, maintaining and replacing aging infrastructure, coping with the new sustainability demands of SGMA, unpredictable weather patterns, staffing, or changes to the agriculture-urban land-use mix, 2019 brought its fair share of challenges to the table.

Protecting Water Rights

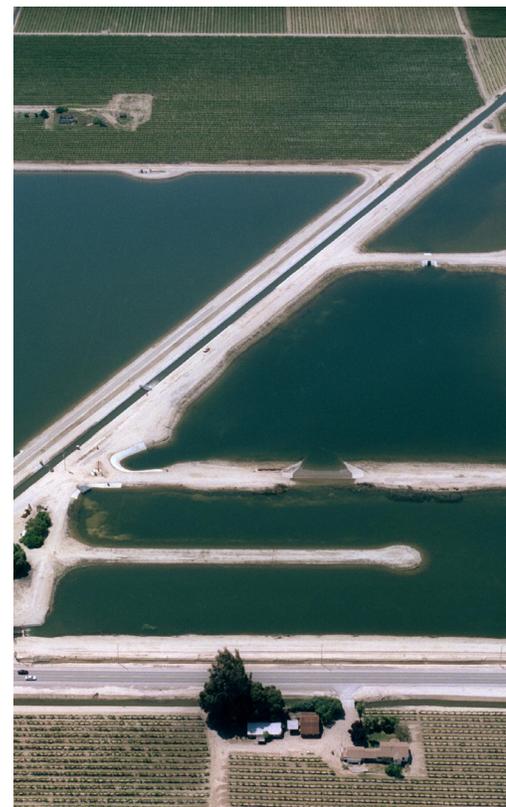
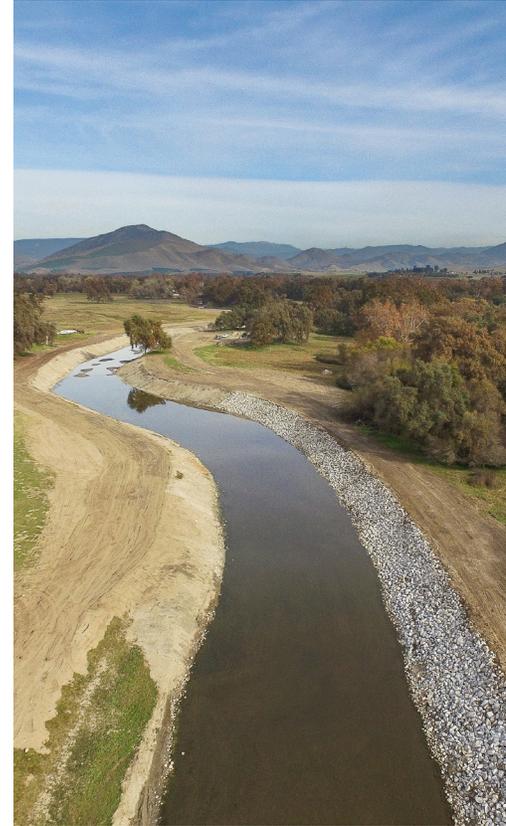
The Semitropic Water Storage District (SWSD) filed a water right complaint with the California State Water Resources Control Board, asserting the Kings River has unappropriated water available because of rare flood water discharges to outside the service area. The SWSD completed a groundwater sustainability plan (GSP), per SGMA, and included a highly controversial project designed to export water to Kern County from the critically overdrafted Kings River service area. This project is highly disputed, and the Kings River water rights holders will vigorously defend their Kings River water rights. The fight over water rights is not new and it will not go away soon. Since the early days, prior to FID's formation in 1920, there have been multiple fights over the water supply from the Kings River. FID, along with the other member agencies in the Kings River Water Association (KRWA), has long been protective of its fully appropriated Kings River water supply, and this time is no different.

Aging Infrastructure

Our conveyance infrastructure has been built at different periods over the past 150 years. Much of FID's infrastructure has served us well through the decades - even generations. Our well-maintained system has brought the kind of value to our growers that other irrigation districts dream about. However, the time has come where parts of our infrastructure are nearing the end of their useful lives, requiring replacements and upgrades where necessary. FID continues to study the condition of the facilities to develop a prioritized list of replacement and maintenance projects, some of which are currently underway to address immediate system needs. These efforts are ongoing and remain a high priority to ensure the continued ability to provide water to our customers. FID is currently addressing immediate system needs to avoid water delivery interruptions.

Coping with SGMA

SGMA charged the Groundwater Sustainability Agencies (GSAs) with achieving groundwater aquifer sustainability. As a member-agency of the North Kings GSA (NKGSA), FID makes up almost 80% of it. FID continues to make groundwater recharge a priority through its groundwater banking and recharge facilities. To be able to complete these projects at the least possible cost to FID customers, FID has and will continue to pursue grant funds and other funding mechanisms as a supplemental source. In order to address water that is leaving the FID/NKGSA boundaries, FID is ensuring boundary flows are accounted for by working with our neighboring basins and GSAs.



Unpredictable Weather Patterns

As weather patterns are changing and becoming more unpredictable, FID has to carefully study the weather patterns to make decisions on availability of water as well as when water deliveries start each year. From a planning perspective, this is a challenge each and every year, especially in years when the supply is limited. While 2019 was a great water year for us, the need to continually plan ahead for the unknown is increasingly clear. In the future, it is likely that the flood releases will come sooner and be greater in volume than in years past but not as frequent due to changing weather patterns. Building projects to make maximum beneficial use of the entitled Kings River flood waters is paramount to FID and critical to reaching its sustainability goals.

Staffing

In any large organization, employee retention is key to developing and sustaining operational strength and efficiency, and FID is no different. In 2019, management worked diligently to improve retention, while on-boarding new and qualified staff. Steps were taken to curb turnover, but like many organizations, FID continues to be challenged with a tight labor market and the need to provide competitive pay, benefits, and career growth opportunities. FID is investing in training and development to strengthen the current and future generation of FID's workforce as the long-tenured employees continue to retire.

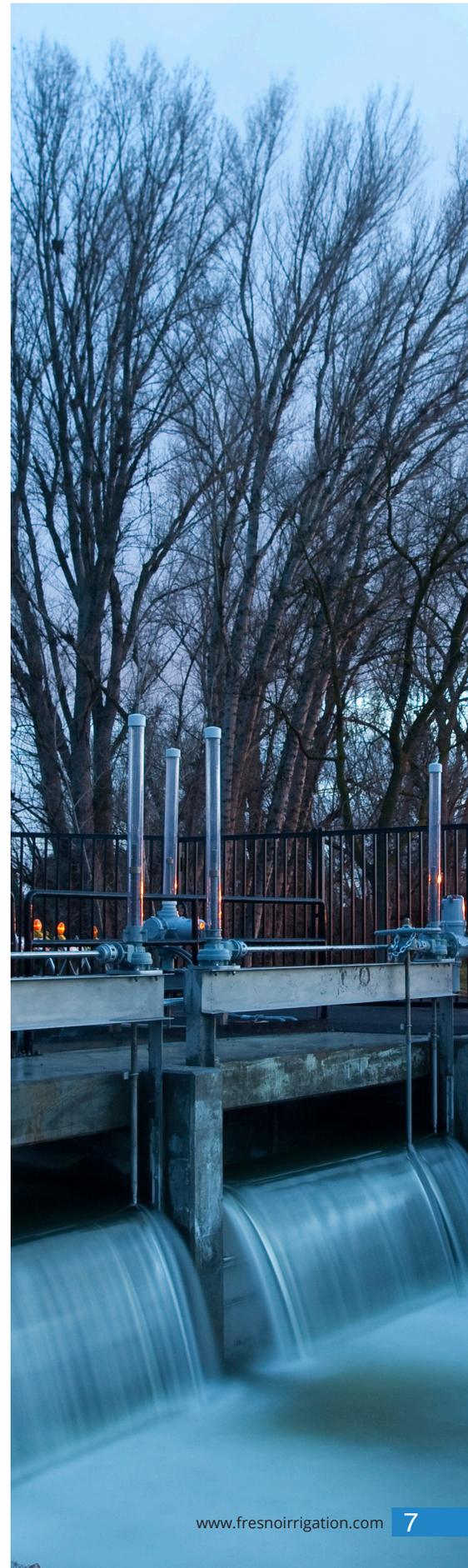
Ag-Urban Mix Changes

According to The Fresno Bee*, the combined Fresno/Clovis population more than doubled from 305,000 to 628,000 during the period of 1984 - 2016. The changes in land-use within FID's boundaries is a challenge to navigate, as acres of farmland become suburban communities with different water and infrastructure needs than their agricultural predecessors. One way we are addressing some of these issues is entering into partnerships with the cities of Fresno and Clovis to develop community trails along FID's canal banks. These trails serve as community amenities and provide certainty for the future operations and maintenance of the canals. Other efforts include partnering with the cities on trash cleanup and homeless debris cleanup efforts. Keeping the canals free of debris, which can impede flow, is critical during the water season, and FID has dedicated teams to ensure these measures are taken.

(*Source: Murray, Jody. "Watch Three Decades of Urban Sprawl in Fresno and Clovis, Squeezed into a Few Seconds." *FresnoBee.com*, *The Fresno Bee*, 17 Aug. 2017)



FID has worked with the cities of Fresno and Clovis to develop trails agreements.



EMPLOYEES

At FID, we believe in our team of talented and dedicated employees and the services they provide to our customers. Our team members are committed to fulfilling our mission.

WE HAVE A TOTAL OF 88 EMPLOYEES



Administration

14 Employees



Engineering

8 Employees



Shop

5 Employees



Maintenance

28 Employees



Water

33 Employees



Longest current employee tenure: **41 YEARS**



Total years of employee service of existing staff: **1,084 YEARS**



Total hours of employee training in 2019: **1,400 HOURS**

Gary Serrato Retirement Recognition



Gary Serrato

2019 was a big year for FID in many ways, but none so much as with the retirement of Gary Serrato - FID General Manager over the past 19 years, with an overall tenure serving the District for 33 years. Gary was the seventh GM to serve FID, and had the second longest tenure in FID's 100-year history.

Named the 2018 Agriculturalist of the Year by the Fresno Chamber of Commerce, Gary has clearly made an incredibly positive impact on the Central Valley as it relates to water. Consistently throughout Gary's tenure, he showed innovative solutions for FID's water users in both good times and bad. Whether it was water-use innovations through years of drought, developing important policies that have resulted in increased water management efficiency, or facilitating water banking and a means for providing water to disadvantaged communities through the Gary R. Serrato Intertie Facility, Gary has been there for it all, and the District is better for it.

Gary shaped our organization into an industry-leading irrigation district, further strengthening our commitment to protecting and managing the District's surface water and groundwater resources, and he remains a valued friend of the District. Gary continues to work part time for FID on a variety of water issues. Please join FID in wishing Gary all the best in his retirement, where he is looking forward to spending more time with his grandchildren and other family members, as well as overseeing his Fowler farm.



BOARD OF DIRECTORS

2019 BOARD MEMBERS



JERRY PRIETO, Jr
Vice President
Division One



CHRIS WOOLF
Director
Division Two



RYAN JACOBSEN
President
Division Three



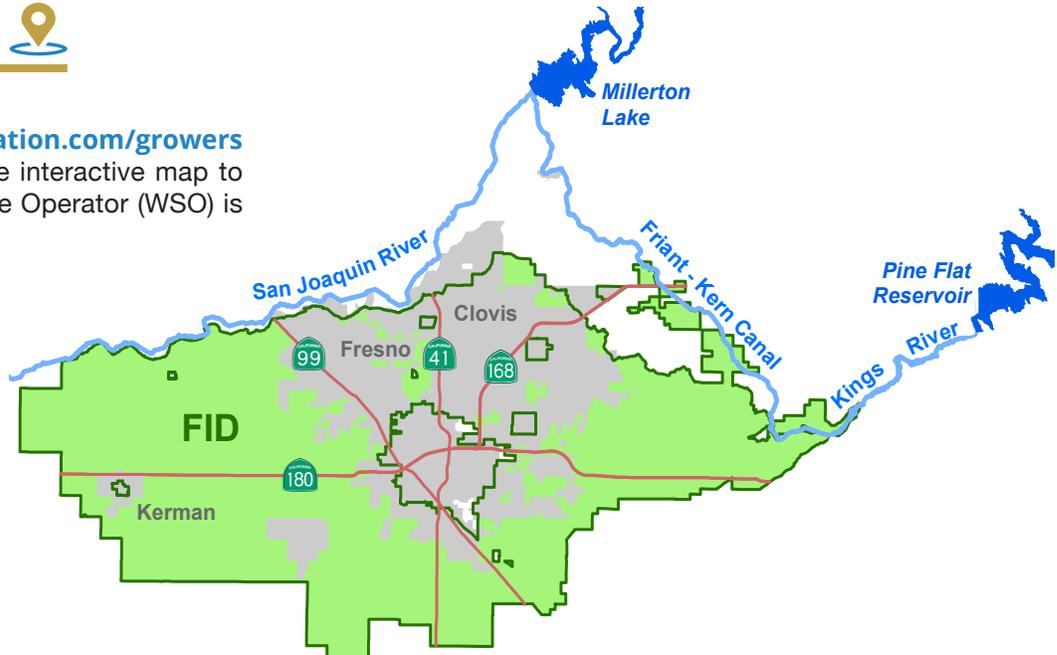
GEORGE PORTER
Director
Division Four



GREG BEBERIAN
Director
Division Five

SERVICE AREA

Please visit www.fresnoirrigation.com/growers and input your address into the interactive map to find out who your Water Service Operator (WSO) is and how to contact them.



CENTENNIAL

2020 launches a new decade and a year-long celebration of FID's rich history. FID is preparing to celebrate a major milestone - reaching 100 years of water delivery service to our growers, cities, and towns alike. FID will celebrate in a variety of ways, such as through monthly storyboards where we take a look back at our history, as well as a look at today and into the future. We will also be reaching out to our different stakeholders to help them better understand our story and what we do, with an emphasis on celebrating our history and strengthening relationships as we move forward.

Please follow the celebration of FID's centennial by viewing our website at: www.fresnoirrigation.com/centennial.



A Century of Commitment,
Conveyance & Customer Service



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and to stay up to date, go to
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