District marks 60th anniversary

In 1956, Fresno voters were done with flooding. Since the area that is now Fresno was founded as a railroad stop in 1872, settlers had to deal with seasonal flooding that was a topographical certainty. Increasing land development added to the existing natural storm drainage and flooding problems. The last straw was one more season of damaging floods in 1955, after 80 years of worsening flooding. For too long, the people of Fresno had endured the safety, health, and economic hazards created by water in streets, in homes and businesses, on farms, and by raw sewage backing up all over town.

Eighty years was long enough

From 1951 to 1956, citizens and businesses organized themselves into a cohesive stormwater advocacy group. The City of Fresno funded the legal assistance to draft legislation that would create an agency to tackle the work of building and maintaining a proper storm drainage and flood control system to serve Fresno. Fresno County and Fresno Irrigation District officials were also active in this effort. Public support for creation of a dedicated agency was strong, and on June 5, 1956, Fresno’s voters passed the Fresno Metropolitan Flood Control Act by a 5-1 majority.

Much work to be done

There were two sources of water that had to be controlled; stormwater falling onto the urban area, and flood water originating in the Sierra Nevada foothills. In 1956, there were few actual storm drains in Fresno. Those that did exist led to the sanitary sewer system, or to canals. These systems were inadequate, and frequently were already too full of flood waters because there were no foothill flood control structures in place. The first step was to hire engineers to design one of the nation’s first storm drainage master plans, which would (1) address needs in both developed and developing areas,
Message from the General Manager

Alan Hofmann

It is with awe, and in admiration of our area’s astute voters, that in 2016 the District celebrates 60 years of service to the Fresno-Clovis Metropolitan area. Not to date myself, but I was only a few days old when the voters ratified the District Act and created our agency on June 5, 1956 by a five-to-one majority vote. It is amazing to think that the foresight of those voters would develop into the flood control and stormwater program that serves the area’s continually expanding communities and water needs. The benefits now enjoyed from a system that collects and recharges storm and flood waters is quite remarkable. However, this system was by no means a miraculous invention, it was thought out by remarkable people, as is so eloquently described in this issue by our guest writer, former General Manager, Doug Harrison.

In regards to storms and capturing rainfall, many folks are probably wondering and questioning where our strong El Niño storm season went. While it was nowhere near the magnitude that was anticipated at the beginning of the storm season, it was nonetheless, better than normal as noted in this issue. During this winter season, the District’s operational efforts took a slight turn in direction to increase storage and reduce pumping. In the wake of groundwater sustainability legislation, there is increased awareness of the importance of retaining and using stormwater as a beneficial resource, which the District has done since 1956. Even though the system is designed to capture, retain and discharge stormwater, our operations staff was more responsive to limiting discharges and retaining more water for winter recharge.

I am continually amazed at the increased proficiency of our storm drainage system during each storm season. The District’s staff that operates and maintains the system ensures that our area’s constituents are protected from floodwater. The growth of the program to meet the needs of an expanding community was authorized long ago by the affirmative action of the voters. I am proud of their actions, the system they authorized, and its ability to collect and utilize a water resource that is so important to our region. It is our commitment to use it to the best of our ability, for the benefit of our community.

El Niño update

Throughout California, people were braced for the worst, and much preparedness occurred, in terms of government emergency response, and among businesses and private citizens. The block-buster El Niño storm season that looked like a real possibility, has not materialized this spring as is so eloquently described in this issue by our guest writer, former General Manager, Doug Harrison.

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Critical to protecting people and property from flooding is understanding an area’s topography and natural flood risks. As shown below, the extensive network of streams originating in the Sierra Nevada foothills is the pathway for flood flows that reach the Fresno/Clovis area. The District has built large reservoirs to the east to intercept and detain major flood waters before they can reach the cities. Downstream of these reservoirs are streams that convey rural runoff to basins located on the fringe of the urban setting. Part of the flood control system is the rural streams program, which is comprised of these reservoirs, basins and streams. The rural streams program was created to preserve, restore and maintain streams within the rural watersheds east of Fresno and Clovis.

Urban development pushes east

As urban development continues to push east, into an area where many rural streams exist, the challenge the District is now faced with is how to successfully integrate the rural streams into the urban setting. District staff has collaborated with City of Clovis staff and land developers to effectively and efficiently integrate the rural streams into proposed urban developments in a way that not only protects the stream but also provides an amenity to the development. The solution to this challenge includes the developers improving the rural streams that traverse their developments to preserve their ability to provide flood protection while also making them an aesthetic feature of the development. Where the City of Clovis deems appropriate, the developers have constructed a public trail along the rural streams that they are improving. Locating a trail along the stream is providing the public a unique opportunity to experience nature and the rural habitat the streams create just outside their doorsteps. In addition to these integration hurdles, District staff must also consider grading and drainage requirements within the development to ensure that the urban drainage system designed to capture and retain stormwater that falls onto developed areas works seamlessly with the rural flood control system. With the help of the City of Clovis and land developers, the District has successfully created a model to follow as more streams are incorporated into urban development.
New classroom materials available in Spanish

Teachers in Fresno and Clovis spoke, and we listened. Now available - the brand new suite of Next Generation Science Standard (NGSS)-aligned classroom materials, in Spanish. Earlier this school year, California schools began implementing the California Office of Education’s new required classroom science program, NGSS. Teachers needed NGSS-compliant materials, and the District developed a set, with the guidance of the Fresno County Office of Education.

Topic titles are: Keep Our Water Clean!, Reduce and Recycle - Help Our Community!, and Help Conserve Our Water Supply! The suite consists of three 8.5”x14” infographic sheets in teacher and student versions, corresponding 24”x36” posters, and PowerPoint presentations. The formats chosen were based upon teachers’ suggestions and preferences. The messages they convey, meet some of the NGSS outlined for 6th, 7th, and 8th grades.

The entire selection of materials, new and existing, is available to teachers in Fresno and Clovis, at no charge. Teachers can now order online at www.fresnofloodcontrol.org, and materials will be delivered to their schools. The District is pleased to offer these tailored classroom materials to the schools within its service area, to help build students’ understanding of stormwater and other local water resources and the importance of preventing pollution.

Interactive water map at Discovery Center

Water is always an important issue in California, and particularly in times of drought. The messages of water quality, supply, conveyance, and control that are illustrated by the interactive map are important in building students’ awareness of how important water is, and how important they are in protecting its quality. While stormwater pollution prevention is the main message the District seeks to communicate, water conservation is also a very important message. See the interactive map at www.fresnofloodcontrol.org/clean-storm-water-program/schools-program/.

“It has been a great joy to partner with The Flood Control District in this project. The children really get into the quiz and I am happy to say they are getting the answers right,“ states Debbie Milla, Director of The Discovery Center. The District is grateful for the opportunity to host the exhibit at the Discovery Center to increase our community’s water resources awareness.

May is Water Awareness Month

May is designated as Water Awareness Month in the State of California. Started during the last serious drought, which lasted from 1987-1992, Water Awareness Month was created by the California Department of Water Resources and the Association of California Water Agencies. During the month of May, water agencies across the state conduct outreach and public education events to boost public understanding of the importance of water as a natural resource.

Locally, the District helps to observe and promote this tradition through active involvement in the Central Valley Water Awareness Committee (CVWAC) since 1987. CVWAC participates in and sponsors activities and educational programs to help people in Clovis, Fresno, and the San Joaquin Valley better understand sources of water, its importance to the overall economic and social well-being of the Valley, and how to adjust water use during the continuing drought and protect water quality.

What’s on tap to prepare for May and beyond

News release and media resource: CVWAC will send its annual Water Awareness Month news release to local media outlining its water messages and providing a list of local water leaders as resources for members of the media to use when reporting on water issues. Proclamations by local city and county government are planned to reinforce the importance of water issues to the lives and livelihoods of all residents of our thirsty valley.

Water wise event and knowledge: CVWAC is proud to again be a sponsor of the annual Water-Wise Plant Exchange event on April 30, organized by City of Fresno Water Conservation and held at the Fresno State Horticulture Greenhouses. The evening before, on April 29, Fresno State’s Friends of the Madden Library will present a talk by award-winning environmental reporter, Mark Grossi, titled ‘Groundwater: Our hidden and unprotected heritage’, for information e-mail waterconservation@fresno.gov or call 621-5480.

Detailed water knowledge: Coming up on May 12 is the 2016 Water Technology Conference hosted by the Fresno State International Center for Water Technology, to be held at the Clovis Veterans Memorial Building. To learn more about this educational and informative event, visit cvwac.org/?page_id=84.

Less is more desirable: In June, the Central Valley Friendly Landscaping Awards will be presented to residential and commercial landscapes in Fresno and Clovis. Recognition of landscapes that inspire the community to protect and conserve water and other natural resources is the goal of the award. Even small changes by many can make a big impact on our environment.

For info on the seven principles of making your landscape ‘Central Valley Friendly’, visit ucanr.org/ CVFriendlyLandscaping.

A chance to reach teachers and students: A new opportunity for 2016 comes from the recent addition of the California Regional Environmental Education Community (www.creec.org) and the Fresno County Office of Education’s Scout Island Outdoor Education Center (www.scoutisland.org). Student field trips and teacher workshops offer a fantastic sponsorship opportunity to help CVWAC reach kids and the teachers who teach them with accurate, locally relevant information on water supply, conveyance, quality, conservation, flood control, and more.

Encouraging science-minded students: Each year CVWAC participates in judging of students water-focused science projects at the Central California Regional Science, Math & Engineering Fair (www.smcfair.org), put on by the Fresno County Office of Education. Students in 6th-12th grades with the top water projects are recognized by CVWAC for their outstanding work.

Beautiful education at Clovis Botanical Garden: In 2015, CVWAC became a major sponsor for the construction of the Mediterranean Garden at the Clovis Botanical Garden (www.ClovisBotanicalGarden.org). The project features plants and trees that flourish in a low-water climate like the Central Valley’s. Seeing living examples of what people can use in their yards can be inspiring for folks seeking to make water-wise changes in their landscapes.

Visit www.centralvalleywater.org for more information on CVWAC’s members and purpose.
The creation of the District was made necessary by a great problem. The foothill streams of eastern Fresno County created a huge flood plain and regular floods. These floods caused catastrophic impacts on the rapidly growing cities of Fresno and Clovis.

The streams problem was compounded by 80 years of urbanization without provision for storm drainage systems. This caused even modest rains to produce flooding in most neighborhoods, leading FHA to threaten to blacklist local home loans. Paralleling the flood problem was the growing concern over long term water supply and recreation space. Population growth was turning these routine needs into major deficiencies.

A Great Vision

The 1950’s were known as the “can do” era, when great vision was applied to great problems. In Fresno, civic leaders began a citizen initiative that envisioned a solution. Their vision produced legislation to create and empower the Metropolitan Flood Control District’s story, one that can be a lens of wonderful clarity and perspective.

A Great Problem

His remarkable plan still guides the District today and has been copied across the country. His remarkable plan still guides the District today and has been copied across the country.

Great Partnerships

To date, 67 years since the District was created, 7 managers have been at the helm of the Fresno-Clovis District. Rarely does one succeed alone. Certainly this is true for the District. The City of Fresno helped finance the citizen’s initiative of the 1950’s. Clovis, Fresno and the County adopted the District Master Plan as their own. The Chamber of Commerce and the Building Industry Association helped create a storm drainage development fee.

Great Leadership

The Fresno Irrigation District and the Flood Control District created an integrated operating agreement that enhanced flood protection and groundwater benefits regionally. The State of California and Army Corps of Engineers brought tens of millions of dollars in funding and expertise to Master Plan implementation.

Great Partnerships

The Fresno-Clovis story is one of many great partnerships. Partnerships with Tree Fresno, the ARC, the Fansler Foundation, youth soccer leagues, local businesses, and so many others delivered community benefits far beyond the hope of the original vision. Such partnerships not only shaped the past, they continue to shape the future.

Great Leadership

There are few significant accomplishments not traceable to leadership. Leadership clarifies the mission, allocates resources, holds the course, evaluates progress and encourages the troops. Without doubt the leadership provided to the District from the Fresno-Clovis community has been, and remains exceptional. The original citizens group created an institutional framework. The first Board, composed of the area’s most knowledgeable public works and water leaders, laid the policy and program foundation. Citizen Boards continue to give the District program its direction and stability.

Stability has also been a hallmark of District staff. In its 60 years, only 7 managers, and it’s common for staff to serve 20 to 30 years, and more. Where expertise and the service principle are valued, good people stay and serve with excellence.

Great Results

On its 60th birthday, the District can look back with a sense of accomplishment and appreciation, and look forward to a challenging important future. Completed systems require operation and maintenance. Unfinished systems need completion. New neighborhoods need service. Public open space and water supply are now even more critical. But for today, there is much to be thankful for – a great problem overcome by a great vision, and a great plan accomplished through great partnerships and great leadership.

60th anniversary

That brings us to today...

Today, nine major flood control facilities to the east of the urban area protect the cities and surrounding farmland from inundation by foothill flood waters within the 399-square mile service area. The 200 square-mile urban service area, expanded in 1985 to encompass the City of Clovis, is protected by a system of 153 stormwater basins, more than 660 miles of storm drain pipeline, and 83 pump stations to move stormwater. A small core group of 75 District employees, and contract work performed by countless local companies, builds and maintains the extensive flood control and urban drainage system that serves the people of the Fresno-Clovis metropolitan area. No more flooded neighborhoods and farms, no more sewage in the streets.

The Fresno-Clovis urban drainage and flood control system is recognized by the State of California as one of the most effective in the state, not only at protecting lives and property from flooding, but as one of the most efficient at capturing and retaining stormwater for use in groundwater recharge. It is estimated that the system has accomplished roughly 1.5 million acre-feet of groundwater recharge by capturing stormwater that otherwise would have been lost to our area. The past five years of drought have made this system benefit more important than ever. In addition to their stormwater capture and groundwater recharge work, the District also provides much-needed recreation open space.

More to come

The system continues to grow to serve each new development built in Clovis and Fresno, and work to properly maintain facilities the public has already invested in. Focus also continues on requirements of legislation regulating stormwater quality, and meeting the challenges presented by the Sustainable Groundwater Management Act, passed by the California legislature in 2014. The Board and staff of the District are proud to serve the people who have put their trust in us.
Jason Clarke came to work for the District in 1998, as a recent Fresno State engineering graduate. He was in his second year of an engineering internship at the City of Clovis, and a co-worker told him there was a job opening at the District. Jason applied, and he was hired as an entry level engineer in the Capital Projects department.

A little under two years ago, Jason earned his second major promotion, and is now Development Services Manager. He oversees the Capital Projects and Development Review departments, and a staff of eight people. Capital Projects handles design and project management of facilities the District builds, such as basin pump stations and storm drain pipelines. Development Review has the responsibility to review outside plans submitted for any land development project. They make sure that grading of lots and streets, and construction of storm drains meet design standards to ensure proper drainage of storm water to avoid flooding.

Jason and his wife, Tamera, and their two children live in Sanger. Preston is 12, and Ashlyn just turned 10 years old. They like to hike, camp, and go to the beach together. Over the years, Jason and his family have also planted lots and lots of trees at the many public events the District and Tree Fresno have held at District basins throughout Fresno and Clovis. Jason designed the irrigation systems and drew the planting plans for about a dozen sites.

Jason says that he has always enjoyed the variety of projects he has gotten to do, and counts the public tree planting events among his favorites.

As expressed by Jason’s supervisor, Design Engineer Debbie Campbell, “Jason has been helpful to the public as attested to by the developers’ consultants and helpful to staff. In addition to his time spent assisting staff he has been a big part of organizing District staff events for many years. I appreciate his time spent assisting the public and fellow staff members.”