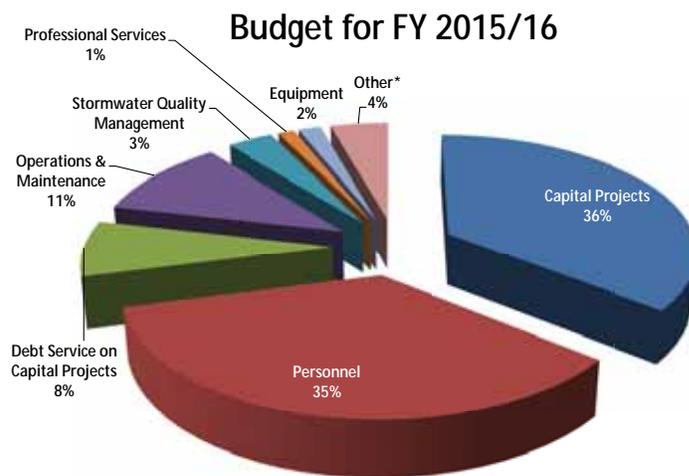


Board adopts \$25.2 million 2015/2016 budget

At its June 27, 2015 public hearing, the District's Board of Directors adopted a \$25,214,741 operating budget for fiscal year 2015/2016. This figure will fund a wide range of functions, from construction of capital projects such as pipelines and pump stations, to maintenance of the extensive network of urban and rural facilities, to personnel expenses, supplies and equipment. As shown on the pie chart, the biggest slices of the budget are the 36 percent devoted to capital projects, 35 percent for personnel costs, and 11 percent for operations and maintenance of existing facilities.

Lower than average

This year's \$25.2 million budget is a conservative projection of costs for the coming year, and it is approximately 11.4 percent lower than the District's 10-year average of \$28.43 million.



*Insurance, office buildings, office admin., other admin. expense, Operations Center expense, Master Plan engineering, management support, environmental planning

'Budget adopted' continued on page 7

Winter/spring El Niño weather pattern predicted

Long term weather forecasting is scientifically difficult. You may have heard and read the caveats that accompany stories about a coming El Niño weather pattern. Though it can't be known for certain what the weather will be like months from now, according to the National Oceanic and Atmospheric Administration's (NOAA) Climate Prediction Center, at present there is a greater than 90 percent chance of El Niño conditions persisting through the 2015-2016 winter, and an 85 percent chance of lasting through spring, 2016. Effects of a strong or very strong El Niño can be severe, as demonstrated during the last very strong El Niño during winter of 1997-98, considered the

largest of the twentieth century. Its impact was felt in many parts of the U.S. and in other countries, and it caused flooding, landslides, and deaths across California. In an April, 1998, NOAA report, it was identified as the wettest in the U.S. since 1895, and the wettest February ever in California. The one forming now is comparable in strength.

Floods follow drought

In our fourth year of severe drought, it can be hard to remember why flood control is critical to protection of people

'El Niño' continued on page 7

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Message from the General Manager



Alan Hofmann

As with many agencies, the District continues to explore opportunities to stretch its resources by searching for other funding sources. For a long period, the capital program has been augmented by the General operating budget of the District. As the General Fund becomes consumed with other demands, the Capital program must be supplemented by other sources of funding.

The District has adopted its 2015-2016 Budget and began the fiscal year on July 1, as noted in this issue's cover story. Once again, capital projects are a major focus of resources in the adopted financial plan. The District's success in obtaining grants requires the allocation of funding to match the grant. However, as the grants typically fund a minimum of 50% of the project, the District's buying power is doubled.

It is amazing how many times I have been asked "what does a flood control agency do during a four year drought?" While California is in a historic period of drought, the work

of implementing a flood control system does not stop. The program continues to construct infrastructure for newly developing areas and make improvements in older systems, so when the rain returns, the community has a drainage system to remove the storm water.

The other question raised is "What are we doing to prepare for the potential El Niño this winter?" Again, I most commonly answer that our system is continually being improved and when the rains begin, we will start winter operations. Over the past four years, many improvements have been made to the drainage system. Improved basin storage capacity, additional pump stations and pipelines are just some of the new capital infrastructure in place to address a large winter season. The long tenure of staff that operate and maintain the system is also an important aspect to address a strong storm season.

In terms of the drought, while my desire for the coming winter could be both a blessing and a curse, I hope our staff and drainage system are significantly challenged by this year's rain season. For if this is the result of my desire, then it would be a favorable result to assist California in meeting its need for water.



This year in California legislation

The clock is running out on this California legislative session. The legislature has until September 11, 2015 to get bills to the Governor, who has until October 11, 2015 to sign or veto them. This session saw the introduction of 2,450 bills by both Houses. The District flagged 91 for review to determine whether they had potential to impact its program responsibilities. Of those, the 25 that appeared to have the most potential to impact its function positively or negatively, are actively tracked. They range in purpose from classification of groundwater recharge as a beneficial use of water, to extending existing law to continue allowing use of volunteer work on public works projects.

The District Board of Directors reviewed staff reports on legislation and considered recommendation for action, in the form of letters of support or opposition to bills and direct contact with legislators to present the District's perspective on potential impacts to its



constituency. As of the writing of this story, 10 of the 25 bills tracked by the District are still active, one has been signed into law (AB 327, Gordon. Public works: volunteers), and the rest are either dead or will be back for consideration in the next legislative year.

Important resources in the District's tracking and analysis of new bills are the legislative advocacy staffs of the the California Special Districts Association and the Association of California Water Agencies. The District is a member of both statewide associations, and relies on their expertise in sifting through the enormous number of bills to find those that could affect its ability to serve the community.

Tracking of bills' status will continue through October 11 to see what new laws are passed, and determine whether they require any action on the part of the District. When the legislature reconvenes in January, 2016, the process begins again. A great public resource for bill tracking and history is the State's California Legislative Information website, <http://leginfo.legislature.ca.gov/>.



Local implementation of the Sustainable Groundwater Management Act

Passage of the Sustainable Groundwater Management Act (SGMA) of 2014 provides the framework for local management of groundwater basins and sub-basins, with a limited role for State intervention, only when necessary to protect groundwater resources. SGMA requires the formation of local Groundwater Sustainability Agencies (GSAs), made up of one or more local agencies. GSAs are required to develop and implement local management plans to achieve groundwater supply sustainability within their groundwater basin. The creation and function of GSAs will mean unprecedented statewide, long-term coordination and communication among agencies and water companies throughout the 515 groundwater basins and sub-basins.

Building on longstanding coordination

The Fresno/Clovis area is within the Kings Sub-basin, a 976,000-acre division of the larger Tulare Lake Basin. The Kings Sub-basin is ranked as a high-priority basin by the State, with regard to groundwater overdraft. Overdraft conditions exist when more water is pumped out of the ground than is put back in through natural and planned groundwater recharge.

Initial discussion among the many water agencies and

companies that operate within the Kings Sub-basin has led to agreement that four to five GSAs would provide adequate groundwater management. One of the five would encompass the Fresno/Clovis area, and would build upon an existing groundwater management plan adopted in 2006 by 10 entities.

As mandated by SGMA, local GSAs must be formed by June 30, 2017, Groundwater Sustainability Plans must be adopted five to seven years later (five for high-priority basins, January 31, 2020), and groundwater sustainability must be achieved by 2040.

The District's unique role

The District is one of the only participants in the proposed Fresno Area GSA that does not extract groundwater for municipal use, and does minimal extraction for landscape or other uses. Its capture and retention of stormwater for beneficial use will intensify in importance as the Fresno Area GSA works toward groundwater sustainability mandated by State law. Every effort will be made to continually improve the already-effective stormwater program to help our community make the most of every drop of rain water.



Low loss ratio turns into a gain

It is not often that an unexpected six-figure insurance refund is received, but that is exactly what happened. Andy Sells, the CEO of the District's insurer asked to be added to the April 8, 2015, Board meeting agenda to make a presentation, and gave the Board a big, ceremonial check (and a smaller, real check) for \$161,449.

Why best practices really are best

The District is one of many water agencies statewide that are part of the pooled insurance group of the Association of California Water Agencies/Joint Powers Insurance Authority (ACWA/JPIA). As explained by Mr. Sells, the ACWA/JPIA 'rate stabilization reimbursement' was made to the District because of its low property losses and strong employee safety program and success in preventing injury. During his presentation, he congratulated the Board on the District's tremendous efforts in safety and low loss rates.

Being part of a pool of public agencies, who all have low loss ratios, benefits each agency because low loss ratios



Director Kendall Groom, ACWA/JPIA's CEO Andy Sells, Director Roy Spina, and General Manager Alan Hofmann

among all means lower premiums for all. This year's refund will be returned to the District's general operating fund.



New classroom tools for teachers meet Next Generation Science Standards

As Central, Clovis, and Fresno Unified School Districts begin to implement the new Next Generation Science Standards (NGSS) in their classrooms, teachers are looking for new classroom tools that meet the new standards. To help meet that need, while fulfilling the District's responsibility to conduct pollution prevention outreach to Fresno and Clovis schools, a new suite of free classroom tools has been developed.

Fresno County Office of Education expertise

The new standards adopted by the State of California Department of Education must be implemented statewide. As explained by curriculum experts from the Fresno County Office of Education, implementing the NGSS requires a big shift in what happens in the classroom. Heavy emphasis is put on experiential, hands-on learning and critical thinking. Very specific standards are written for each grade. Comparison between them and the District's stormwater pollution prevention and water resource messages were made to find where there was alignment. Sixth, seventh, and eighth grades were found to have the best fit. The Fresno County Office of Education went the extra step and presented draft concepts to a group of 100 teachers to get their impressions and ask what kinds of materials they want

and would use in their classrooms. The answers were then put to use in development of three infographic-style hand-outs (shown here), and poster versions, teachers' guides, and PowerPoint presentations for each of the three. This multi-format approach gives teachers flexibility in how to use the tools, and allows them to use them for more in-depth teaching. Listed on each, are the specific standards they address. Visit www.fresnofloodcontrol.org to download PDFs, or submit a request for class sets.



Also ready for the new school year is an interactive urban water resources map, also found at www.fresnofloodcontrol.org. Through a terrific partnership with the Discovery Center, the interactive map will also be permanently accessible, complete with a large touch-screen television, in its museum building.

State Water Board Industrial General Permit deadline: Filing for a No Exposure Certification

July 1, 2015 was the deadline for industrial and commercial operators, who are required to enroll in the new State Industrial General Permit to file their "Notices of Intent", to comply with the Permit. The State extended the deadline for enrollment to August 14, 2015; however, those business owners whose sites pose no threat of polluting stormwater are encouraged to instead file for a "No Exposure Certification" (NEC). The deadline to file is October 1, 2015.

The NEC is a quicker, cheaper and simpler compliance pathway for those businesses that are operated in such a way that no processes, pollutants or materials can come into contact with stormwater (i.e. rain). It is essentially a signed statement from the facility owner agreeing to take measures to ensure that all industrial materials and processes are prevented from exposure to rain and surface flows coming onto and leaving from the site. To maintain its NEC status, the operator must inspect and evaluate the facility annually, keep records of such inspections and certify that there have

been no offsite discharges of contaminated stormwater.

The NEC process requires that you complete and submit an application form, a signed certification, a completed NEC checklist, along with a site map, and pay an annual fee of \$242. You must re-file each year to maintain your exemption. Operations that qualify for NEC coverage are not required to have a Stormwater Pollution Prevention Plan or conduct stormwater monitoring; activities that can be costly and sometimes require hiring an outside firm specializing in stormwater pollution prevention.

NEC filings, like all Industrial General Permit filings, are done through the web-based "Stormwater Multi-Application Reporting & Tracking System" (SMARTS) at <https://smarts.waterboards.ca.gov/smarts/faces/SwSmartsLogin.jsp?logMessage=2>.



The secret life of stormwater

In 2013, the District conducted a public awareness survey as part of its stormwater public education and outreach efforts. The results helped the District to understand what people know and what they think, which is important in choosing messages for public service announcements and informational materials. Something critical revealed by the survey was that roughly 23.5 percent of people in the Fresno/Clovis area know that when it rains, stormwater ends up in ponding basins. Almost as many, 21.5 percent, think stormwater goes to a wastewater treatment plant. It does not, as they are separate, unrelated pipeline systems.

Know where your stormwater goes

While practical functions of government like these are not typically on people's minds, it is good to know where your community's stormwater goes. You should know:

1. You are protected by a large network of underground pipes that move water off of streets, away from homes and businesses, and deliver it to stormwater basins to prevent the kind of flooding our area is prone to,
2. Once stormwater moves from gutters, through pipelines, and reaches one of the 153 basins in Fresno and Clovis, it will soak through the soil and eventually return to our community's groundwater aquifer, which is the primary source of drinking water, and,



3. Your use of yard and garden chemicals, fertilizers, automotive fluid leaks and disposal matter, because all of those become stormwater pollutants when they are washed into the gutter by rain, hoses, or sprinklers.

When rains do return, you will know there is an urban drainage system waiting to capture and contain that water to prevent flooding and to help replenish your community's water supply. For tips and resources on preventing stormwater pollution, visit <http://www.fresnofloodcontrol.org/clean-storm-water-program/pollution-prevention/>.

Don't frown on brown, but green is also nice

Perhaps you have seen the drought-driven public awareness campaign slogans "Don't frown on brown" or "Brown is the new green". These messages address the pervasive use of high water-use lawns in residential and commercial landscapes across the state, and encourage people to conserve precious water by letting their lawns go dead or dormant.

Many people are thinking about taking out their lawns, and are exploring their replacement options. At present, the most commonly advertised landscape remodel ideas seem to be decomposed granite and boulders, or synthetic lawn. However, there are other ideas to consider, and seeing examples of them can open up a world of possibilities.

A great place to see water-wise and California native plants and trees is the Clovis Botanical Garden. You see mature versions of plants and trees, and



Water-wise landscape near Fresno High, redone completely by the homeowner.

each is labeled with genus and common names so you know what to ask for at your local nursery. Visit www.clovisbotanicalgarden.org for days of operation, and lots of great information, including in-depth plant profiles.

An excellent resource for photos of gorgeous water-wise landscapes and plant information is www.ucanr.edu/CVFriendlyLandscaping. Of interest to people looking for ideas to use in their yards, will be the 'Photos' and 'Resources' tabs. To take a virtual tour of beautiful water-wise residential landscapes in Fresno, visit www.fresnogardening.org. This tool offers great design examples and offers detailed information on plants and trees a homeowner wants to know - ultimate size, water and sun needs, and suggestions on spacing and grouping with other plants.

Collaboration to bring quality environmental education tools to classrooms



Guest writer:
Jennifer Weibert
Science Coordinator,
**Fresno County Office of
Education**

The Fresno County Office of Education (FCOE) has actively been involved with the Fresno Flood Control and its education outreach program for more than 15 years. In 2007, the FCOE was pleased to be part of the educational team that helped the Fresno Flood Control create a workbook for 5th grade students. A grant was also created that allowed teachers to take their class on a field trip to the County's Environmental Educational Center at Scout Island and experience water conservation and water pollution prevention in action. Additionally, the Fresno Flood Control's own Patrick Bryan has visited hundreds of classrooms, performing magic shows on the water cycle as well.



Scout Island Outdoor Education Center, on the San Joaquin River, serves as an outdoor environmental education classroom.

Times have shifted once again in science education with California's adoption of the Next Generation Science Standards (NGSS) in 2013. These new science standards require students to learn science through defined skills and apply their new knowledge to other situations. The Fresno Flood Control recently decided that their outreach program needed to be updated and aligned to the NGSS and called upon the Science Program at Fresno County Office of Education for expertise and assistance.

The science standards pertaining to water conservation and pollution have shifted greatly, moving from the 5th grade to the middle school level. This shift presented a challenge to the Fresno Flood Control on how to best meet the needs of middle school students. It was decided that the current workbook format was best for elementary and that something new was needed for the middle school level.

One of the science literacy standards requires students to be able to read an informational piece of text and explain the data in the text. This standard led to the thought of using infographics. Infographics are a popular type of teaching tool that involves pictures, data and text. They are a very engaging tool to use with middle school students.

Research was done to figure out what NGSS water standards matched the 6th, 7th and 8th grades. The Fresno Flood Control's message needed to be spread out across the grade levels, matching the NGSS standards. An infographic for each grade level was then created with bright, engaging pictures and data relevant to our Valley.

There are none better to ask what is needed for water science support than the teachers themselves. Fresno County is fortunate to have an established network of over 100 middle school teachers that meet several times throughout the school year to deepen their knowledge of NGSS and transform their teaching practices. The newly created infographics were taken to this network of teachers and feedback came back for some minor fixes. The overall response was "These are great!" "When can I have a copy of these to use?" "I want them now."

"There are none better to ask what is needed for water science support than the teachers themselves."

The new materials are available for download at www.fresnofloodcontrol.org. Teachers in Fresno and Clovis can also request printed class sets on the website, or by contacting Kristine Johnson at kristinej@fresnofloodcontrol.org, or (559) 456-3292.

Also created at the suggestion of teachers were poster versions of the infographics, and PowerPoint presentations teachers can use for additional depth and time on the topics covered in the infographics. The Fresno County Office of Education has been instrumental in distributing educational materials to schools through its internal delivery system. FCOE provides a mass delivery service of the Fresno Flood Control's products through school district mail.

For further information pertaining to the NGSS and science teacher trainings, please contact Jennifer Weibert at jweibert@fcoe.org. For field trip information to Scout Island Outdoor Educational Center visit www.scoutisland.org.

Budget adopted

Continued from cover

Capital projects remain a priority

The biggest budget years were those with an aggressive capital construction program, funded significantly by a \$20 million California Infrastructure Bank loan and by State and Federal grants. The loan is nearly paid off, and the District's approach to grant seeking is increasingly more methodical and focused. Securing grant funds to offset costs of planned urban drainage and flood control projects is an effective way to make local dollars stretch, as typical grants provide at least a 50% cost share.

Build-out of the planned urban drainage and flood control system continues to be a program priority. Thirty-six percent, or \$7.5 million, of the new budget is committed to capital projects. Of that amount, \$4.87 million is local matching cost share committed to grant projects.

Stewardship and local investment

The District continuously looks for new and innovative ways to maximize efficiencies in all program areas. This is a

El Niño

Continued from cover

and property. The Fresno/Clovis area is topographically prone to flooding, and California generally experiences cycles of drought followed by flooding. Whether or not this El Niño materializes, rains will eventually return to our area. When they do, our parched ground will not be able to absorb the water as quickly as it can in less dramatically dry conditions. This, in addition to a significant area of the ground's surface being covered with buildings, roads, and parking lots, will create increased storm runoff for the urban storm drainage system to move, capture, and contain.

Seventeen years out from the strongest El Niño of the twentieth century, the Fresno/Clovis urban storm drainage system is more complete. Though drainage system construction is ongoing, there are more miles of pipelines that lead to more excavated stormwater basins, and more pump stations exist to move water, as necessary, to make room for incoming water. In total, there are 153 stormwater basins and more than 650 miles of pipelines ready to do their work. There is significantly more flood water storage to the east of the urbanized area as well, to allow for capture and containment of flood waters flowing through streams and channels coming out of the Sierra Nevada.

What most people in Fresno and Clovis will see is rain

foundational tenant of the organizational culture, and fosters careful stewardship of public funds entrusted to the District. The structure of the organization is built on a relatively small core group of employees, 73 at present, who are responsible for all functions within the 399-square mile service area, combined with a large variety of outsourced goods and services. Since the District's creation, this organizational model has served to provide the protection of people and property that voters demanded, in a nimble and efficient fashion, while providing significant revenue to local businesses.

Last year, a survey of the past 10 years of the District's financial activity found that there were approximately 980 private sector businesses the District worked with, of which 86% were California businesses. More than 530 of those businesses were in the Fresno/Clovis area. In total, more than \$120 million was injected back into the economy from 2005 to 2014. The beneficiaries of the District's organizational model range from office supply companies to vehicle fueling and repair stations, environmental consultants, engineering and legal firms, land surveyors, materials manufacturers, landscaping contractors, advertising outlets, temp agencies, construction and maintenance contractors, communications and support providers, and equipment rental companies.

falling on the urban area. While the urban storm drainage system has more capacity than it did in 1997/1998, it still takes time for water to drain off of streets and into pipelines. During heavy downpours, you will see areas of temporary ponding of water at storm drain inlets around town. Much like the drain in a bathtub, the storm drain inlets will allow stormwater to drain off of the streets, just not all at once.

Keep the inlets clear

Field staff of the Fresno Metropolitan Flood Control District, in coordination with staffs of the cities of Clovis and Fresno, and the County of Fresno work year round to keep debris from clogging storm drain inlets and causing street flooding. If you see that debris is blocking a storm drain inlet, call the District at (559) 456-3292. Crews will clear the entrance of the inlet so that stormwater has an unobstructed path to the pipeline system below the street. Residents can also clear the opening to inlets in their area.

Perspective from the past

Reading news stories from the winter and spring of 1997/1998 provides a startling view of the devastation weather caused across California. Visit www.fresnofloodcontrol.org to see the District's archive of Fresno Bee Newspaper stories written during that record-breaking El Niño period. For current El Niño information and updates, visit NOAA's El Niño portal at www.elnino.noaa.gov.



Fresno Metropolitan Flood Control District

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Close Up: Ryan Schiebelhut



Ryan, Jovanna, and Jace Schiebelhut (clockwise)

Facilities Technician Ryan Schiebelhut came to work for the District in early 2008. He is a trained motorcycle mechanic and came to the District from Wilson's Motorcycles in Fresno. His mechanical ability, in addition to his familiarity with welding and fabrication have been of great value to the District in its facilities operations. His skills have been of particular value in helping to protect public property from being stolen by metal thieves. He has worked to keep manhole covers and wire from pump station electrical boxes secure from theft. This is important not only to protect publicly owned property and equipment, but to protect public safety.

Ryan is part of the team that is responsible for urban storm drainage system maintenance, including developed basins in Fresno and Clovis. He explains, "During storm events we can be on-call, ready to work, 24 hours a day to help unclog storm drain inlets, and monitor basin water elevations and pumping to keep the public safe from flooding." Developed basins are those with landscaping or recreation improvements such as turf, trees, and play equipment.

"Ryan has a well-rounded skillset related to the District's urban system. He's dependable and gets a lot of work done with minimal direction. Ryan is exactly the type of person you want on your staff during a flood fight," says Brent Sunamoto, Operations Engineer for the District.

Though Ryan has been with the District for more than seven years, he says it feels like just a couple of years have passed, and attributes that in part to getting to learn something new every day. Ryan goes on to explain, "I have learned there is a lot more to water running down a curb into a drain than most people realize, and that basins serve more than one purpose as parks. The District has developed a great system for catching and storing water, and I sometimes feel they don't get recognized for that as often as they should."

Ryan and his wife Jovanna live in Fresno with their six-month old son, Jace. Though Jace is too tiny yet to participate, Ryan says his whole family has a passion for the outdoors, and love to camp and ride motorcycles. The Central Coast is a favorite destination, Pismo and Avila beaches particularly.

