



**MINUTES OF THE
BOARD OF DIRECTORS MEETING
OF THE TURLOCK IRRIGATION DISTRICT**

Turlock, California
10 October 2017

The meeting of the Board of Directors of the Turlock Irrigation District was called to order at 9:00 a.m. in regular session on the 10th day of October 2017. Present were: Directors Joe Alamo (President), Charles Fernandes (Vice-President), Michael Frantz (Secretary), Rob Santos and Ron Macedo, General Manager Casey Hashimoto and Executive Secretary to the Board Tami Wallenburg.

SALUTE TO THE FLAG

MOTION APPROVING CONSENT CALENDAR

Moved by Director Fernandes, seconded by Director Santos, that the consent calendar consisting of the following be approved:

- A. Minutes of the regular meeting of October 3, 2017.
- B. Demands against the District represented by check numbers 367359 to 367555, inclusive, in the amount of \$6,520,459.02.

All voted in favor with none opposed. The President declared the motion carried.

PUBLIC COMMENT PERIOD

There was none.

PUBLIC HEARING

A public hearing was opened at 9:02 a.m. to receive comments from the public regarding the proposed formation of ID. No. 15850, to be known as the Sikma Pump. Hearing no comments from the public, the hearing was closed at 9:03 a.m. and the following action was taken:

RESOLUTION NO. 2017 - 68

**RESOLUTION OF FINAL ORDER OF THE BOARD OF DIRECTORS OF
THE TURLOCK IRRIGATION DISTRICT FORMING IMPROVEMENT DISTRICT
NO. 15850, TO BE KNOWN AS THE SIKMA PUMP,
AND LEVYING A SPECIAL ASSESSMENT THEREIN**

WHEREAS, the Board of Directors of the Turlock Irrigation District, on October 10, 2017, at 9:00 a.m., held a public hearing on the petition for formation of Improvement District No. 15850, to be known as the Sikma Pump, under the provisions of Part 7, Division 11, of the California Water Code; and

WHEREAS, based upon the evidence presented at the public hearing, the Board of Directors finds the following:

A. The holders of title or evidence of title of two-thirds or more in number of the acres of the land in the proposed improvement district have signed the petition for the formation of an improvement district.

B. The Turlock Irrigation District has properly caused to be prepared a Survey of the proposed improvements.

C. Plans and Specifications, an Estimate of the Cost of the improvements, and a Statement of the Proposed Assessment have been filed with the Secretary of the Board of Directors of the Turlock Irrigation District.

D. A Detailed Engineer's Report has been prepared.

E. Proper and timely notice of the hearing was given in accordance with California Water Code Section 23646 and/or the California Constitution.

F. Timely notice of the hearing and of the proposed assessment was given to the lien holders of record of the parcels to be included in the proposed improvement district, and all lien holders' objections, if any, were resolved to the satisfaction of the Board of Directors.

G. The ballots were tabulated and no majority protest exists.

H. Each of the tracts of land within the boundaries of the proposed improvement district will be benefited by the formation of the improvement district.

I. It is in the best interests of the Turlock Irrigation District and the proposed improvement district to form the improvement district and to acquire or construct the proposed improvements.

J. The assessment hereinafter levied is necessary for the purpose of acquiring or constructing the proposed improvements.

NOW, THEREFORE BE IT HEREBY ORDERED AND DECREED as follows:

1. The petition for the formation of Improvement District No. 15850 is hereby approved and Improvement District No. 15850 is hereby formed. The Turlock Irrigation District is hereby authorized to proceed with the acquisition or construction of the improvements set forth in the petition and in accordance with the applicable survey and estimate of the costs.

2. The Board of Directors of the Turlock Irrigation District does hereby levy and apportion the assessment according to benefits in the manner described in Exhibit A, which is attached hereto and incorporated herein by reference.

3. To the above assessment shall be added both of the following sums: (a) an amount equal to interest on any deferred payments at the rate of five and one quarter percent (5 1/4%) per annum, and (b) an amount equal to ten percent (10%) more than all other sums to be raised by the assessment in order to provide for anticipated delinquencies.

4. The assessment shall be payable over ten (10) years in twenty (20) semi-annual installments with the first installment due and payable at the time the first installment of the year 2018 improvement district assessments are due and payable.

5. In addition to the above assessment, each year there shall be assessed against the lands of the improvement district a sum sufficient to pay for the necessary maintenance and operation costs, as determined by the Board, of the improvement district's facilities and related improvements, and that the assessments shall be levied and apportioned according to benefits by the Board each year at the time set for the levying of the annual assessment of the Turlock Irrigation District and shall be in addition to any other assessment levied upon the lands within the improvement district.

6. The improvement district assessment, and each installment thereof, shall be and remain a lien on such lands in the same manner and effect as the annual assessment of the Turlock Irrigation District.

7. This Final Order forming the improvement district and levying the assessments shall be entered in the minutes of the Board and the Executive Secretary of the Board shall cause a certified copy of this Final Order to be recorded in the office of the County Recorder in each county in which any land of the improvement district is situated.

Moved by Director Macedo, seconded by Director Fernandes, that the foregoing resolution be adopted.

Upon roll call the following vote was had:

Ayes:	Directors Fernandes, Santos, Frantz, Macedo, Alamo
Noes:	Directors None
Absent:	Directors None

The President declared the resolution adopted.

CERTIFICATE OF APPRECIATION

Tou Her, AGM Water Resources, reviewed Bill Flanagan's career with the District prior to his recent retirement. Mr. Flanagan began his employment with TID in 1992 at the Don Pedro Recreation Agency. He held several positions over the years until his last promotion as Maintenance Division Manager, overseeing many infrastructure projects and planning. Mr. Her stated that "Bill has an intimate understanding of all things pertaining to Don Pedro" noting he also took extensive footage of the 1997 flood. His coworkers describe him as "kindhearted, always willing to help, truly cares about people" and the "best person to back a 5th wheel barge down a ramp." Mr. Her said Bill and his vast knowledge will be greatly missed and wished him well in his retirement.

Bill Flanagan stated he has had a lot fun getting to know people during his 25 years with the District and is thankful for the many friendships he has formed. He said he appreciated the opportunity to work for such a great company. The Board president then presented him with a Certificate of Appreciation for 25 years and 4 months of dedicated and conscientious service to the Turlock Irrigation District.

WEEKLY UPDATES

Wes Kellison, Energy Trader, reviewed operations for the week of September 29 through October 5. The daily system peak, including partial required sales, reached 417 megawatts on September 29. The load was met with TID Hydro, thermal generation, short and long-term firm, renewables and spot purchases. Total renewables of TID retail energy sales plus losses were at 34 percent. The Tuolumne Wind Project (TWP) generated 8,749 MWh's during this time period at the Willis Substation. Natural gas prices have been steady at \$3.10/mmBTU. Electric operations for this period show Walnut Energy Center was online, Boardman was online with reduced output light-load, Almond ran three days for operations and all Don Pedro Units will remain out of service until November 6.

Mike Kavarian, Water Distribution Department Manager, reviewed irrigation activity for the week of October 2 through 8. Water orders taken during this period totaled 1,384 with an additional 308 orders received the previous day. Activity for this period show flows ranged between 810 and 705 cfs. Daily releases from Turlock Lake averaged at 747 cfs, 115 cfs below projections. The last day for water orders is October 29th with final delivery by November 1st.

DON PEDRO PROJECT RELICENSING/LA GRANGE PROJECT LICENSING PRESENTATION

General Manager Casey Hashimoto reviewed the steps leading up to today's historical action before the board. As many know, both TID and Modesto Irrigation District (MID) have been in the process of relicensing the Don Pedro Project since 2009 and along the way started the licensing process for the La Grange Project. The milestone event for both projects include the filing of the Amended Final License application for Don Pedro and the filing of the Final License application for the La Grange with the Federal Energy Regulatory Commission (FERC) on October 11. He stated these projects are extremely valuable resources that impact both water and electrical customers. During this process, the Districts have worked to develop the most-focused, most-recent and most-collaborative science on the Tuolumne River and that science is the foundation of the application which is now being referred to as the Tuolumne River Management Plan (Plan). Throughout the project, the Districts have continually asked the community to participate in the process and trust that we are looking out for the long-term welfare of our customers, our communities as well as the health of the River. The Districts believe it is a comprehensive Plan based on science and benefits both the ecosystem and the communities we serve as it is balanced, sustainable and achievable.

Steve Boyd, Director of Water Resources and Regulatory Affairs, also serves as Project Manager for the Relicensing projects. He reviewed the Plan's numerous River improvement elements, and what the Plan could mean for the region. Mr. Boyd reviewed several significant federal acts which require the extensive licensing process the Districts have undergone, as well as several noteworthy dates leading up to today's signing of the final license application. The overarching goals of the Plan are to maintain water supply reliability for agricultural and municipal users of the Tuolumne River and promote long-term prosperity of the communities served. Also, using the empirically-based science developed for the lower Tuolumne River, to identify potential measures to protect and expand the fall-run Chinook salmon and O.mykiss populations through in-river improvements. Additional goals include support of recreational opportunities and riparian

resources on the lower Tuolumne River as well as protect cultural, terrestrial, and recreation resources at both Projects, with numerous Study Plans conducted for each aspect. Key Plan mitigation measures include Flow, Non-Flow, Recreation and Management Plans. The Non-Flow measures cover predator control and suppression, gravel introduction, cleaning and quality improvement, habitat complexity improvement, water hyacinth removal and a restoration hatchery. Recreation measures include boating flows and whitewater rafting take-out, with Management plans covering historical management property plan and resource management.

Mr. Boyd also reviewed predation issues along the river stating that the lower Tuolumne supports significant populations of non-native predator fish species including black bass and striped bass. Special pools provide excellent black bass habitat while striped bass move and feed through the entire 52-mile reach. Studies performed in 1992 and 2012 support the conclusion that low survival of fry and juvenile fall-run Chinook is primarily a result of predation by non-native fish. Striped bass are voracious predators and highly mobile, accounting for 15-20 percent of the loss due to predation. From 2007 through 2013, the smolt survival index on the lower Tuolumne River averaged 9.5 percent, and ranged from 2.7 percent to 28 percent. From 2008 through 2013, fry survival index averaged 5.4 percent, and for four years was less than 1 percent. Goals for predation measures included an exclusion to striped bass from the reach upstream of river mile 25.5 and to reduce and eventually eliminate smallmouth bass upstream of that same river mile. Additional predation mitigation measures included a reduction of black bass populations downstream of river mile 25.5 by 10 percent as well as an overall 10 percent reduction in the predation rate.

The Plan also includes a Gravel Quality Improvement Program which will improve the quality of spawning gravels through a program of experimental gravel cleaning to remove fine sediments that in-fill the spawning gravels. The primary sources of these fine sediments are intermittent tributaries entering the Tuolumne River below La Grange Diversion Dam between river mile 50 and river mile 40.

The Tuolumne River is also challenged by a minimum level of natural in-basin reproduction and overwhelming number of out-of-basin hatchery strays. Experts suggest that these strays should not exceed 5 percent, with 10 percent considered high risk for a river. A study conducted over 10 year's shows that the Tuolumne averages well over 50 percent of hatchery strays. The goal is to enhance genetic diversity and bolster self-sustaining, naturally producing, local origin salmon. If the plan is approved, the Districts will pay for fall-run Chinook restoration hatchery which will be operated by the California Department of Fish and Wildlife.

Mr. Boyd then reviewed proposed flow measures covering each of the five water-year types including wet, above normal, below normal, dry and critical. The San Joaquin Index used for determining water-year type is 60-20-20 and the procedure for estimating runoff and water-year type remains the same as currently used by TID.

La Grange mitigation measures include a formalization of a flow to plunge pool, a sluice gate barrier, recreation access trail, implementation of a historic property management plan and dissolved oxygen monitoring.

Costs for the Tuolumne River Management Plan for Don Pedro are estimated at \$77.5 million for capital, \$57.5 million for operations and maintenance, and \$22.9 million for

environmental monitoring for a total of \$158 million. La Grange costs would include \$710,000 for capital, and \$60,500 for operations and maintenance for a total projected cost of \$770,500.

Next steps include the submission of the amended and final license application to FERC who will then review the filings which are approximately 6,000 pages long. They will either request additional information or declare the plan is ready for environmental analysis. Agency and public review will then begin with possible preliminary conditions from mandatory conditioning agencies and possible trial type hearings on preliminary conditions. Mr. Boyd commended Legal Counsel Art Godwin for never missing any of the numerous meetings held on the licensing as well as enduring the 6 to 8 hour phone calls. He also expressed immense appreciation for John Devine, Senior Vice-President for HDR Engineering, who he named as the true master architect behind the Plan and unfortunately could not be present today. He stated that although Mr. Devine worked for the Districts on this project, Mr. Boyd felt he personally worked more for John and learned a great deal over the last 6 years.

Director Macedo thanked Modesto Irrigation District and others involved in the lengthy process leading up to today which, if approved, places the Districts in a much better position moving forward. Director Frantz stated that “water is the lifeblood of the entire community and this Plan balances the needs of the people with a healthy fishery” and commended all involved in this immense undertaking.

Hearing no further comments, the Board took the following action:

RESOLUTION NO. 2017 - 69

RESOLUTION DIRECTING THE GENERAL MANAGER OF THE TURLOCK IRRIGATION DISTRICT, JOINTLY WITH THE MODESTO IRRIGATION DISTRICT GENERAL MANAGER, TO FILE ALL NECESSARY DOCUMENTS WITH THE FEDERAL ENERGY REGULATORY COMMISSION FOR THE FINAL LICENSE APPLICATION FOR THE DON PEDRO PROJECT AND LA GRANGE HYDROELECTRIC PROJECT

WHEREAS, the Turlock and Modesto Irrigation Districts (‘Districts’) were the first two irrigation districts formed in California; and

WHEREAS, the Districts have been partners on the Tuolumne River since the construction of the La Grange Diversion Dam in 1893 and the original Don Pedro Dam in 1923; and

WHEREAS, the Federal Power Commission (predecessor to the Federal Energy Regulatory Commission, or FERC) issued a 50 year license to the Districts to build and operate the Don Pedro Project, a multi-purpose water supply, flood control, and hydroelectric project on the Tuolumne River; and

WHEREAS, the Don Pedro Project was a cooperative effort between the Districts and the City and County of San Francisco, which paid a large portion of the construction cost in order to secure storage credits in the reservoir; and

WHEREAS, since its completion in 1972, the Don Pedro Project has been a tremendous asset to the region, providing irrigation water to more than 200,000 acres of prime agricultural land, low cost, renewable energy, flood control, and abundant recreational opportunities. The Don Pedro Project also contributes substantially to the municipal water supplies of the City of Modesto and 2.6 million people in the San Francisco Bay Area; and

WHEREAS, in November 1995, the Districts entered into a settlement agreement with eight parties, which, among other provisions, established the current minimum instream flow requirements for the Tuolumne River. The agreement established several flow and non-flow measures and an extensive program to monitor fall-run Chinook salmon populations and habitat in the lower Tuolumne River; and

WHEREAS, as required by federal regulations, the Districts filed a Preliminary Application Document and Notice of Intent to renew their license with FERC on February 11, 2011; and

WHEREAS, on April 28, 2014, in accordance with FERC regulations the Districts filed with FERC the Final License Application for the Don Pedro Project. As noted in the filing, several FERC-approved studies were ongoing which were likely to inform the development of additional protection, mitigation, and enhancement measures. The Districts have now completed these studies and have prepared an amendment to the Final License Application (AFLA). The AFLA replaces the Districts' April 28, 2014 filing in its entirety; and

WHEREAS, the AFLA is the culmination of a multi-year, comprehensive effort by the Districts in consultation with numerous federal and state resource agencies, Indian tribes, and members of the public, working under FERC's Integrated Licensing Process, to identify and assess the effects of ongoing Project operations on environmental resources. As part of this effort, the Districts worked closely with relicensing participants to compile and review existing information and conduct over 35 FERC-approved resource studies, including holding 20 Consultation Workshops with relicensing participants, covering the full range of environmental resources in the Project area; and

WHEREAS, the Districts are also filing a Final License Application (FLA) for an original license for the La Grange Hydroelectric Project (Project) in accordance with FERC regulations. The Districts are seeking an original 50-year license for the operation of the La Grange Hydroelectric Project; and

WHEREAS, the Districts, as co-owners of the La Grange Diversion Dam located on the Tuolumne River, began the multi-year licensing process for the La Grange Hydroelectric Project by filing a Pre-Application Document (PAD) with FERC on January 29, 2014. The Districts' PAD included descriptions of the La Grange Hydroelectric Project facilities and operations. A preliminary assessment of the resource effects of La Grange Hydroelectric Project operations was also provided in the PAD. The Districts distributed the PAD to federal and state resource agencies, non-governmental organizations, local governments, Indian tribes, and other licensing participants; and

WHEREAS, the primary purpose of the Districts' La Grange Diversion Dam is to divert water for the beneficial uses of irrigation and Municipal & Industrial supply. Hydroelectric

generation at TID's two-unit, 4.7 MW powerhouse is a secondary purpose of the Project. The diversion of water for water supply purposes is not dependent on the issuance of a FERC license for TID's power plant and will continue to occur in the event FERC decides against such issuance.

WHEREAS, the Preferred Plan identifies proposed changes to Don Pedro Project facilities and operations, specific flow-related and non-flow related resource protection, mitigation, and enhancement (PM&E) measures intended to benefit the resources of the lower Tuolumne River and Don Pedro Reservoir, and adaptive management provisions to inform future resource and Project management. Certain elements of the PM&E measures address the direct Project effects of Don Pedro operations, while most of the proposed measures are resource enhancement measures proposed by the Districts to protect and improve the health of the lower Tuolumne River are not directly related to direct Project effects.

NOW, THEREFORE BE IT RESOLVED that the General Manager of the Turlock Irrigation District, jointly with the Modesto Irrigation District General Manager, is hereby directed to file all necessary documents with the Federal Energy Regulatory Commission for the Final License Application for the Don Pedro Project and the La Grange Hydroelectric Project.

Moved by Director Santos, seconded by Director Frantz, that the foregoing resolution be adopted.

Upon roll call the following vote was had:

Ayes:	Directors Fernandes, Santos, Frantz, Macedo, Alamo
Noes:	Directors None
Absent:	Directors None

The President declared the resolution adopted.

GENERAL MANAGER'S REPORT

General Manager Casey Hashimoto had no new items to report.

BUSINESS OF THE BOARD

There was none.

MOTION TO ADJOURN TO CLOSED SESSION

Moved by Director Frantz, seconded by Director Fernandes, that the regular meeting of the Board of Directors be adjourned:

- 1. Conference with Legal Counsel – Anticipated Litigation**
California Government Code Section 54956.9(d)
Significant exposure to litigation: one potential case
 - Michael Clipper, Risk & Investment Analyst
 - Sara Lima, Assistant General Counsel

2. Conference with Labor Negotiator

California Government Code Section 54957.6

- Agency Negotiator: Martin Purdy
- Employee Organizations: TID Employees Association

All voted in favor with none opposed. The President declared the motion carried.

REPORT OF ACTION TAKEN IN CLOSED SESSION

The President announced the following action was taken in closed session:

Moved by Director Macedo, seconded by Director Fernandes, that the claim of Rich Imfeld be approved in the requested amount of \$3,575.00. All voted in favor with none opposed.

RECESS

The meeting was recessed at 11:10 a.m.

RECONVENE

The regular meeting was reconvened in GM Conference Room 172 at 11:20 a.m. with all officers present as per the previous session.

FINANCIAL WORKSHOP

Dennis Waley, and fellow associates from PFM Financial Advisors, presented options and alternatives for the use of the District's power supply adjustment reserves. PFM was engaged by the District to analyze the use of available cash in the reserve. The District's options are not mutually exclusive with multiple combinations available for deployment of the reserves. Objectives are to allocate funds to have the greatest impact on long-term financial health of the District by maintaining a strong current credit rating, mitigate future volatility and strike a desired balance between cash flow relief, return on cash and liability reduction. The executive summary indicates the District's current cash and reserve position are solid, annual capital costs are stable, and prefunding of the District's unfunded liabilities for pension and other post-employment benefits (OPED) are a way to realize long-term benefit and maximize earnings potential. The ratings overview show S&P maintains the highest rating on TID's senior-lien, TWPA and WECA bonds at AA-, and an A+ rating on the District's subordinate lien bonds. Fitch rates all TID debt as A+ but does not distinguish between senior and subordinate-lien bonds or on-off balance sheet debt. Moody's has not been used for the last two transactions. Rating agencies have become increasingly focused on the unfunded pension liabilities of local governments, although debt service coverage, liquidity, and capital structure remain the primary focus for public power utilities. TID is positioned favorably to its peers with regard to the funded position of its pension plan. One notable difference is that many of TID's counterparts use lower discount rates with TID maintaining the highest discount rate at 7.95 percent. PFM associates reviewed several cash optimization alternatives such as prefund unfunded pension liability, prefund unfunded OPEB liability, defease debt, and cash fund capital improvements. TID also currently funds its capital projects in two ways 1) on a pay-go basis with revenue/cash and/or 2) with debt including

commercial paper (CP) and long-term bond issuance. Bond financed projects are funded liability using the Districts CP program, which is a low-cost way to finance most capital projects with many noted benefits. Also reviewed were a summary of unfunded retiree liabilities and investment returns. Investment returns are dependent upon actual asset allocation profile of the pension fund and the District should be prepared to adjust the funding policy if investment returns are below expectations. In order for PFM to evaluate and compare the savings potential from use of the PSA reserves, they first developed a base case projection of cash flows, assuming that PSA reserves are not available. They developed five different scenario models and discussed each option, as well as cash flow savings statistics for each scenario. Board members asked several questions on short-term vs long-term debt, commercial paper and major capital projects. After further discussion, they directed the General Manager to work with PFM on additional specific scenarios before making any decisions on the PSA reserves that would be reviewed at a future board workshop.

MOTION TO ADJOURN

Moved by Director Frantz, seconded by Director Santos, that the regular meeting of the Board of Directors be adjourned.

All voted in favor with none opposed. The President declared the motion carried.

Tami Wallenburg
Executive Secretary to the Board of Directors