



**MINUTES OF THE REGULAR
MEETING OF
THE
INLAND EMPIRE UTILITIES AGENCY
BOARD OF DIRECTORS**

**WEDNESDAY, FEBURARY 1, 2017
10:00 A.M.**

DIRECTORS PRESENT:

Steven J. Elie, President
Michael Camacho, Vice President
Jasmin A. Hall, Secretary/Treasurer
Paul Hofer
Kati Parker

STAFF PRESENT:

P. Joseph Grindstaff, General Manager
Chris Berch, Executive Manager of Engineering/AGM
Randy Lee, Executive Manager of Operations/AGM
Christina Valencia, Chief Financial Officer/AGM
Kathryn Besser, Manager of External Affairs
Liz Hurst, Environmental Resources Planner II
Sylvie Lee, Manager of Planning & Environmental Resources
Jason Marseilles, Senior Engineer
Jason Pivovaroff, Senior Engineer
Shawn Stone, Manager of Engineering
Teresa Velarde, Manager of Internal Audit
April Woodruff, Board Secretary/Office Manager

OTHERS PRESENT:

Ms. Vivian Castro, Chino Basin Water Conservation District
Mr. Satish Kamath, Parsons

A regular meeting of the Board of Directors of the Inland Empire Utilities Agency* was held at the office of the Agency, 6075 Kimball Avenue, Bldg. A, Chino, California on the above date.

President Elie called the meeting to order at 10:02 a.m., and Director Elie led the pledge of allegiance to the flag. A quorum was present.

President Elie stated that members of the public may address the Board. There was no one desiring to do so.

President Elie asked if there were any changes/additions/deletions to the agenda. There were no changes/additions/deletions to the agenda.

WORKSHOPS

REGIONAL WATER RESOURCES MANAGEMENT WORKSHOP

Executive Manager of Engineering/AGM Chris Berch gave a PowerPoint presentation on the Regional Water Resources Management Program. He provided a general overview of the history of water resources in the Chino Basin from the early 20th century to present day. Mr. Berch noted that the historical success of the region and its resilient water supplies in the IEUA service area/Chino Basin have been developed over the past 30+ years. He stated these programs helped add more water into storage and helped the region weather through the drought. He further stated as IEUA moves forward with a focus on long term resiliency for the region, the future of water resources will be more focused on the larger watershed and groundwater storage projects. Therefore, it's important for the Agency to continue to strengthen and build partnerships with stakeholders and other water agencies throughout the watershed.

Mr. Berch provided a technical focus presentation on the following projects:

Prado Basin Adaptive Management Plan (Prado AMP):

The Prado AMP is a mitigation requirement of the 2010 Subsequent Environmental Impact Report (SEIR) that the IEUA Board adopted for the Peace II Agreement. It will establish a baseline habitat and hydrology conditions to ensure that there are no unforeseen adverse impacts from implementation of the programs in the Peace II Agreement. The Prado AMP is a partnership between IEUA and Chino Basin Watermaster (CBWM), and has included active stakeholder participation from Orange County Water District (OCWD), the Army Corps of Engineers and the Fish & Wildlife service (both California and US). The first annual report is under development, with an anticipated draft to be released in March 2017.

Upper Santa Ana River Habitat Conservation Plan (Upper SAR HCP)

The Upper SAR HCP is a watershed-wide collaborative project that spans the Santa Ana River Watershed north of Prado Dam. San Bernardino Valley Municipal Water District (Valley District) leads the project which involves 12 water agencies and regulatory stakeholders such as the US and CA Dept. of Fish and Wildlife. The Upper SAR HCP will include an evaluation of project impacts on 24 endangered species, which will then be used to pre-negotiate mitigation with the regulatory agencies.

As part of its environmental documentation, the Upper SAR HCP will also need to develop a model of the Santa Ana River. This model will identify impacts that individual projects will cumulatively have on river flows. IEUA, along with CBWM will continue working together with Valley District and the other SAWPA agencies as the model is being developed to ensure that it is consistent with other existing models and operations in the Chino Basin.

Chino Basin Water Bank

The 2015 Integrated Water Resources Plan (IRP) identified the potential for Chino Basin to build stored groundwater under a variety of scenarios, such as increased water use efficiency and maximized recycled water. During the current drought, this potential was realized when Chino Basin increased storage levels despite the dry conditions. As a result, the region has started conceptual discussions about developing a Chino Basin Water Bank.

Challenges facing the development of a Chino Basin Water Bank include determining how it would integrate into existing groundwater discussions, operations and agreements. It is important to note that other watershed wide programs, such as SARCCUP, rely heavily on the ability to store water in the Basin through an entity such as the Chino Basin Water Bank.

Santa Ana River Conservation and Conjunctive Use Program (SARCCUP)

SARCCUP is a combination of water resources projects that spans the Santa Ana River Watershed. The project received \$55 million (M) in grants for the \$100M project through Proposition 84 funding. The project includes increasing storage within four basins for a total of 180,000 acre foot (AF). Most of the water would be stored in the Chino Groundwater Basin. SARCCUP also provides funding for riparian habitat improvements (Santa Ana sucker fish), and budget based rate structure development. Chino and Chino Hills, are transforming their rate structures and benefiting from this portion of the grant.

Per the Proposition 84 requirements, all projects included in SARCCUP must be completed by 2021. This will be a challenge since many of the projects, especially those in the Chino Basin, will require interagency agreements before they can move forward.

RP-1/RP-5 EXPANSION PDR WORKSHOP NO. 3

Senior Engineer Jason Marseilles gave a PowerPoint presentation on the RP-1 & RP-5 Expansion Preliminary Design Report (PDR). Mr. Marseilles stated that this workshop will focus on RP-1. The RP-1 Liquids Treatment Systems; 2. The RP-1 Solids Treatment Systems, and 3. Advanced Water Treatment for total dissolved solids (TDS) reduction and indirect potable reuse. He mentioned that the Advance Water Treatment is a two-step process of total dissolved salts removal followed by organics removal. He stated this is usually achieved by reverse osmosis followed by peroxide or ozone chemical injection or ultraviolet light.

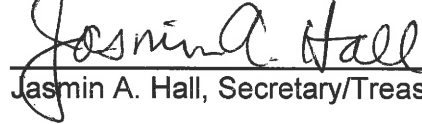
Mr. Marseilles stated that the RP-1 and RP-5 Expansion PDR is scheduled to be completed this March, with the RP-5 expansion design being awarded in April, and will last two years. He noted construction of the RP-5 expansion will begin in 2019, and will have a duration of 3 years with a completion date in 2022, which is still in line with the US Army corps date for completing the construction for the raising of the Prado Dam Spillway. Mr. Marseilles stated that the RP-1 expansion design will begin after the completion of the RP-5 Expansion Project in 2023, and will last 2 years. He noted the construction of the RP-1 Expansion Project will follow design and will last 3 years with a completion date in 2029. General Manager Joe Grindstaff stated that the Agency may pull the RP-1 preliminary and 30% design forward to the next fiscal year to be eligible for potential federal funding opportunities. He stated as part of the PDR, the project team evaluated the treatment process expansions required for the headworks and primary treatment, secondary treatment, tertiary treatment, and the RP-1 liquid expansion treatment costs. He stated that the RP-1 liquids treatment expansion has three major objectives for the expansion of the RP-1 secondary system. The system is to provide enough hydraulic and biological treatment capacity to allow for: 1. An increase in the raw sewer influent capacity of RP-1 from 32 MGD to the ultimate capacity of 40 MGD; 2. Increased secondary capacity to allow treatment of peak daily flow to eliminate Primary Effluent equalization; and 3. Increased secondary capacity to provide dewatering centrate treatment onsite eliminating the need to discharge to the Non-Reclaimable Waste System. Mr. Marseilles provided four RP-1 secondary treatment alternatives including costs – 1. Expand the existing conventional activated sludge system (\$92.1M); 2. Expand the existing system with a new membrane bio-reactor (MBR) treatment system (\$107.7M), and 3. Convert the existing system to a new MBR treatment system and add one additional MBR train for redundancy (\$163.8M); and 4. Convert the existing system to a new MBR treatment system without an additional MBR treatment train (\$151.5M) as flows can be bypassed to RP-5 to allow for system maintenance. He reported that staff recommends a full MBR system without an additional MBR treatment train (Option 4), because it provides the best effluent water quality, has the smallest footprint, supports one treatment system, and leverages spare capacity at RP-5.

Mr. Marseilles discussed the RP-1 solids expansion that includes improvements to the thickening, digestion, and dewatering processes. He stated the following improvements are recommended: 1. Construct a new rotary drum thickening system, which includes waste activated sludge (WAS) thickening; 2. Refurbish and include odor control to the existing dissolve air flotation devices; 3.

Construct three new smaller acid phase digesters; 4. Convert the digesters to allow for recuperative thickening; and 5. Construct a new bio-scrubber odor control system. Mr. Marseilles reported that the RP-1 Solids Project cost is estimated at \$47.2M, and the RP-1 Liquids Expansion Project cost is approximately \$182M, with an estimated total RP-1 Expansion Project cost of approximately \$230M.

Mr. Marseilles discussed advanced water treatment (AWT) system alternatives at either RP-1 or RP-5 to reduce total dissolved solids (TDS) in IEUA's overall effluent to stay in compliance with the National Pollutant Discharge Elimination System (NPDES) permit, and to meet regulatory treatment requirements for indirect potable reuse. He provided two options; to 1. construct a system at RP-5 that would allow for TDS reduction only (\$40M), or 2. construct a system at RP-1 that would allow for TDS reduction and approximately 2 MGD of indirect potable reuse (\$65M). This cost does not include the cost for pipelines or groundwater injection wells. He reported staff's recommendation for AWT is not to construct AWT at RP-5 at this time, because benefits for the indirect potable reuse cannot be obtained at RP-5; and therefore, it is better to construct it at RP-1.

With no further business, President Elie adjourned the meeting at 11:37 a.m.



Jasmin A. Hall, Secretary/Treasurer

APPROVED: MARCH 15, 2017