

## Attachment 7

### Technical Justification of Projects

---

The three projects listed in this proposal will diversity regional water supply portfolio to ensure a long term, reliable and sustainable supply. These projects provide numerous water supply benefits to the Imperial region, to local communities within the region, and to the State of California.

#### **Increase Water Supply with the Holtville Wastewater Treatment Plant Improvement Project**

The Imperial IRWMP is required to be consistent with the State's Water Quality Control Plan (RWQCB, 2006) for the Colorado River Basin Region. The Water Quality Control Plan (Basin Plan) defines the beneficial uses for the water bodies in the Imperial Region, establishes water quality standards and objectives to protect the designated beneficial uses, and includes implementation plans to improve water quality where it is impaired.

Water conservation is an anticipated part of the program in an effort to reduce regional water demand. Reducing future dependence on imported water would potentially produce benefits associated with avoiding the costs of redelivering, pumping, and recharging imported water into the groundwater basin.

Recycling treated wastewater offers potential benefits to the Region and would supplement supply by giving Colorado River water a second life. Recycled water would be matched to new or current uses suitable to the level of treatment and quality of the original water. Recycled water would be used to help supplement or replace Colorado River water used to irrigate local golf courses, recreational areas, green spaces, and nearby agricultural land. Recycling of municipal wastewater sources will allow the Imperial Region to provide secondary use of Colorado River water, support development of untapped resources, and improve the ability for the Imperial Region to respond to variable climate conditions. Regardless of the long-term effects of climate change to Colorado River flows, whether it increases or decreases flows, recycling will help the Region respond to vulnerabilities and make maximum beneficial use of the current entitlements by reducing reliance on Colorado River supplies when meeting the demands for cooling water or other uses.

There are 14 wastewater treatment plants and discharge sources within the Imperial Region. Annual wastewater effluent volume is approximately 16,000 acre-feet per year and future volume is projected to exceed 36,000 acre-feet per year. The future forecasted water demand in the Region for renewable energy is between 146,000 and 180,000 acre-feet per year, with and without conservation, respectively. If all the wastewater available were reclaimed, it would only provide a fraction of the forecasted future demand.

Recycled water is a viable method to increase regional water supplies and will likely become more cost-effective as the true cost of water for new users is factored into the financial analysis. As mentioned in the Imperial IRWMP, many cities in the Region are not

## Attachment 7

### Technical Justification of Projects

---

in compliance with waste discharge permit conditions and are having trouble finding funding to improve existing plants. Utilities must be well managed locally to ensure long-term sustainability of collection, treatment, and distribution systems. The local water and wastewater utilities must be well maintained and operated.

The successful completion of the Holtville Wastewater Treatment Plan Improvement Project would provide the following, quantifiable, project physical benefits:

1. The proposed project will create 40-50 construction jobs over a twelve (12) month period.
2. Improve the quality of effluent released back into surface waters

The successful completion of this project would provide the following, non-quantifiable, project physical benefits:

3. Allow the City of Holtville to comply with the RWQCB's requirements, specifically the stringent ammonia requirements.
4. By improving the effluent, the ecosystem of the Salton Sea will improve as the City's effluent is released into the Pear Drain, a tributary of the Alamo River and Salton Sea.
5. A new laboratory at the existing WWTP site will provide new technological benefits by allowing Staff to conduct onsite testing.
6. Successful completion will resolve public water resource conflicts by resolving fines to be issued by the Regional Water Quality Control Board.
7. The project will promote social health and safety by reducing exposure to water related hazards. By incorporating new equipment and rehabilitating the WWTP, the WWTP will be able to improve the treatment of wastewater, thereby reducing wastewater related hazards.
8. Holtville is considered is a disadvantaged community. Obtaining grant funding to make improvements to the wastewater treatment plant will reduce the amount that sewer rates will need to be increased for the community, thereby reducing the adverse economic effects to a disadvantaged community.
9. The proposed project will positively impact species of special concern such as the Fathead Minnow and the Desert Pupfish, an endangered species for which a Recovery Plan was completed in 1993.
10. The completion of the project will improve water quality for impaired bodies of water such as the Pear Drain, Alamo River and the Salton Sea, all of which are impaired bodies of water per Section 303(d) of the Clean Water Act.
11. Releasing cleaner effluent into surface waters will also prevent further water quality degradation into impaired bodies of water such as the Pear Drain, Alamo River and Salton Sea.
12. Improvements to the WWTP will reduce the amount of toxins such as ammonia and e-coli in surface waters.
13. The improvements to the WWTP include new energy efficient machinery and electrical updates reducing the consumption of electricity. Reducing energy usage in

## Attachment 7

### Technical Justification of Projects

---

turn will lead to a reduction of greenhouse gas emissions as the combustion of fuels to generate electricity is responsible for emitting greenhouse gas emissions.

14. The City of Holtville will avoid fines and penalty fees from the Regional Water Quality Control Board for non-compliance.

#### **Improving Water Quality with the Interconnection between the City of El Centro, City of Imperial and the Heber Public Utility.**

The IRWMP has prioritized Drinking Water Treatment and Distribution because of the critical water quality needs of DACs in the Region. This strategy includes planning and development of facilities to provide a safe, high-quality drinking water supply in compliance with state and federal requirements to protect public health and safety. The interconnection project between the City of El Centro and City of Imperial drinking water systems is identified as a regional project to be completed to meet the regional goal of improving water quality by improving system interconnections and water distribution system improvements.

Previously in 2012, there was a close call when the Heber Public Utility District (HPUD) water treatment plant was not producing potable water for a short time period. The time implications of the emergency were not readily available and HPUD and City of El Centro were looking at an option to interconnect in a temporary emergency manner. Ultimately, HPUD was able to bring the plant back online before water ran out and the emergency was averted. However in 2010 the region experienced a 7.2 earthquake and the damage from the earthquake demonstrated the need for alternative and reliable water sources to be created for the region. As a result of the earthquake many of water plants suffered damage ranging in severity. The City of El Centro had the roof of one 2.5 MG potable water tank ripped open which resulted in severe damage. The tank was taken out of operation, and the main power plant suffered damage. The City had just completed a new water plant that they were able to get in operation to in order to continue to provide water and the main storage tanks were spared by the earthquake. While the City of El Centro has been able to divert a major disaster during these emergency situations, the proposed interconnect project is absolutely imperative in order to reduce the risk of power outages and low fire flow pressures.

## Attachment 7

### Technical Justification of Projects

---

---

The successful completion of the Interconnection Project between the City of El Centro, City of Imperial and Heber Utility District would provide the following, non-quantifiable, project physical benefits:

1. Create a streamlined approach and improve safety within the affected jurisdictions.
2. The project would provide reliability, public safety, promote mutual aid, provide system redundancy and improve drought response

#### **Improving Flood Management with Stormwater Drainage Improvements in the Township of Seeley**

The California Water Plan Update of 2009 includes a Resource Management Strategy (RMS) addressing regional flood control. During stakeholder assessment and interviews by the Imperial IRWMP facilitator and subsequent evaluation of Disadvantaged Community (DAC) needs, Imperial Region stakeholders identified diverting stormwater from developed areas, reducing localized flooding, and improving economic development potential within the urban areas as high priorities.

The Projects Work Group discussed stormwater and flood control in their early meetings, and a Flood/Stormwater Workshop was held May 2011 to draft findings and recommendations. The draft findings and recommendations were introduced to the Water Forum in June 2011. Subsequently, local agency staff sought input from other groups, including the Imperial County Transportation Commission's City Managers Committee and Technical Advisory Committee composed of local public works engineers. Flood control challenges and opportunities were also discussed at a local American Society of Civil Engineers meeting. The following findings and recommendations were adopted that include:

- Stakeholder assessments and DAC needs analysis have documented localized stormwater and runoff concerns and an awareness of the need for regional solutions.
- Economic development of planned urban areas will be constrained without management structures, capital facilities, and funding mechanisms to provide regional and local drainage solutions and benefits.
- The Preliminary Drainage Master Plan prepared by IID and other city and county master plans provide a basis for discussion of structural solutions and for development of priorities for regional drainage.
- As the Cities develop, they will potentially increase runoff and impair drain and river water quality. The Cities have the largest need for improved regional stormwater management and conveyance, but do not have authority to deal with regional drainage or manage areas outside of their jurisdiction.

## Attachment 7

### Technical Justification of Projects

---

The project will include a passive storm/nuisance water treatment system. Storm run-off and flow are conveyed in roadway swales, creating health and safety hazards for the residents any time there is even a minor storm event. Hazards include vector control issues due to standing water; and school children having to cross the street on wooden pallets to avoid walking through knee-deep water. The pallets themselves create a danger, since they rot quickly and a child could fall through or off the pallets. The Seeley Union School District attempts to replace the pallets often to avoid such a mishap. Please see attachment *TechJust Exhibit A* for documentation of these issues. The School District has expressed concern for the safety of children walking to school on rainy days and the days following rain events. Deep water collects in the streets and the road shoulders, and takes several days to dry up. Pedestrians walk in the roadway, in the line of traffic, to avoid walking in the mud and water on the side of the road. However, deep water also collects in the roadway itself, leaving very narrow places in the center of the road that are dry. In addition, the school district also experiences monetary loss each time it rains, since many children do not attend school on rainy days, if their parents are unable to drive them.

The Public Health Department experiences an increase in mosquito abatement activities after it rains in Seeley, because of standing water that remains for days. Please see attachment *TechJust Exhibit B* for an attached report of Jeff Lamoure, Deputy Director of the Imperial County Division of Environmental Health). There is a major emphasis on the public health and safety of school children; however Seeley's poor drainage does have a negative impact on school children and residents throughout the city. Many of the residents do not have vehicles and must walk to the bus stop, post office, or other destinations within the Community. It is difficult and unsafe for pedestrians to move about the community. The condition of Seeley streets declines rapidly because of the standing water, showing signs of deterioration such as rutting, cracks, potholes, and visible pavement distress. The County has recently done a costly rehabilitation of Seeley's streets, but a few minor rainstorms can cause the deterioration to start all over again.

The successful completion of the Drainage Improvements in the Township of Seeley Project would provide the following, non-quantifiable, project physical benefits:

1. Improve regional flood control
2. Reduced vector control problems
3. Elimination of the need for the County's water trucks to drain the water into nearby reservoirs
4. The Seeley project will reduce hazard effects and risks by draining storm water away from the Community of Seeley.

## Attachment 7

### Technical Justification of Projects

---

5. Improved safety for pedestrians, especially children walking to school
6. Reduced need for road maintenance, such as rehabilitation and repairs
7. Reduced wear and tear on vehicles because of the poor condition of the roads
8. Reduction in student absences on rainy days and the days after