APPENDIX K – UTILITIES

Water Supply Assessment – Westside Main Canal Battery Storage

2021

WATER SUPPLY ASSESSMENT – WESTSIDE MAIN CANAL BATTERY STORAGE

PREPARED FOR IMPERIAL COUNTY PLANNING & DEVELOPMENT SERVICES

BY DUBOSE DESIGN GROUP

JANUARY 2021

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2 ACRONYMS

A-3	Agricultural Zone – 3
AAC	All-American Canal
AC	Acre
AF	Acre-Foot or Acre-Feet
AFY	Acre-Feet per Year
AOP	Annual Operations Plan
APN	Assessor's Parcel Number
BLM	Bureau of Land Management
BMS	Battery Management System
CAP	Central Arizona Project
CDCR	California Department of Corrections and Rehabilitation
CDPH	California Department of Public Health
CDWR	California Department of Water Resources
CED	Consolidated Economic Development
CEQA	California Environmental Quality Act
County	County of Imperial
CPI	Consumer Price Index
CRWDA	Colorado River Water Delivery Agreement
CUP	Conditional Use Permit
CVWD	Coachella Valley Water District
CWC	California Water Code
EDP	IID Equitable Distribution Plan
EIS	Environmental Impact Statement
ET	evapotranspiration
FSM	Fern Side Main Canal
gpd	Gallons Per Day
HVAC	Heating, Ventilation and Air-conditioning
ICPDS	Imperial County Planning and Development Services
ICS	Intentionally Created Surplus
IID	Imperial Irrigation District
IOPP	Inadvertent Overrun Payback Policy
ISG	Interim Surplus Guidelines
IRWMP	Integrated Regional Water Management Plan
IWSP	Interim Water Supply Policy
kV	kilovolt
KAF	Thousand Acre Feet
LAFCO	Local Agency Formation Commission
LCR	Lower Colorado Region
LCRWSP	Lower Colorado Water Supply Project
MCI	Municipal, commercial, industrial
MGD	Million Gallons per Day
MW	Megawatt
MWD	Metropolitan Water District of Southern California
NAF	Naval Air Facility
NFPA	National Fire Protection Association
O&M	Operating and Maintenance
PV	Photovoltaic

PVID	Palo Verde Irrigation District
QSA	Quantification Settlement Agreement and Related Agreements
SB	Senate Bill
SDCWA	San Diego County Water Authority
SNWA	Southern Nevada Water Authority
SWRCB	State Water Resource Control Board
TLCFP	Temporary Land Conversion Fallowing Policy
USBR	United States Bureau of Reclamation
USEPA	United States Environmental Protection Agency
WSA	Water Supply Assessment
WSM	West Side Main Canal

3 PURPOSE OF WATER SUPPLY ASSESSMENT

This Water Supply Assessment (WSA) was prepared for the Imperial County Planning & Development Services (Lead Agency) by Dubose Design Group, regarding Consolidated Edison Development, (the "Applicant"). This study is a requirement of California law, specifically Senate Bill 610 (referred to as SB 610). SB 610 is an act that amended Section 21151.9 of the Public Resources Code, and Sections 10631, 10656, 10910, 10911, 10912, and 10915 of the Water Code. SB 221 is an act that amended Section 11010 of the Business and Professions Code, while amending Section 65867.5 and adding Sections 66455.3 and 66473.7 to the Government Code. SB 610 was approved by the Governor and filed with the Secretary of State on October 9, 2001, and became effective January 1, 2002.[1] SB 610 requires a lead agency, to determine that a project (as defined in CWC Section 10912) subject to California Environmental Quality Act (CEQA), to identify any public water system that may supply water for the project and to request the applicants to prepare a specified water supply assessment. This study has been prepared pursuant to the requirements of CWC Section 10910, as amended by SB 610 (Costa, Chapter 643, Stats. 2001). The purpose of SB 610 is to advance water supply planning efforts in the State of California; therefore, SB 610 requires the Lead Agency, to identify any public water system or water purveyor that may supply water for the project and to prepare the WSA after a consultation. Once the water supply system is identified and water usage is established for construction and operations for the life of the project, the lead agency is then able to coordinate with the local water supplier and make informed land use decisions to help provide California's cities, farms and rural communities with adequate water supplies.

This study has been prepared pursuant to the requirements of CWC Section 10910, as amended by SB 610 (Costa, Chapter 643, Stats. 2001). The purpose of SB 610 is to advance water supply planning efforts in the State of California; therefore, SB 610 requires the Lead Agency, to identify any public water system or water purveyor that may supply water for the project and to prepare the WSA after a consultation. Once the water supply system is identified and water usage is established for construction and operations for the life of the project, the lead agency is then able to coordinate with the local water supplier and make informed land use decisions to help provide California's cities, farms and rural communities with adequate water supplies.

[1]SB 610 amended Section 21151.9 of the California Public Resources Code, and amended Sections 10631, 10656, 10910, 10911, 10912, and 10915, repealed Section 10913, and added and amended Section 10657 of the Water Code. SB 610 was approved by California Governor Gray Davis and filed with the Secretary of State on October 9, 2001.

Under SB 610, water supply assessments must be furnished to local governments for inclusion in any environmental documentation for certain projects (as defined in California Water Code (CWC) Section 10912 [a]) that are subject to the California Environmental Quality Act (CEQA). Due to increased water demands statewide, this water bill seeks to improve the link between information on water availability and certain land use decisions made by cities and counties. This bill takes a significant step toward managing the demand placed on California's water supply. It provides further regulations and incentives to preserve and protect future water needs. Ultimately, this bill will coordinate local water supply and land use decisions to help provide California's cities, farms, rural communities, and industrial developments with adequate long-term water supplies. The WSA will allow the lead agency to determine whether water supplies will be sufficient to satisfy the demands of the project, in addition to existing and planned future uses.

4 PROJECT DETERMINATION ACCORDING TO SB 610 - WATER SUPPLY ASSESSMENT

With the introduction of SB 610, any project under the California Environmental Quality Act (CEQA) shall provide a Water Supply Assessment if the project meets the definition of CWC § 10912. Water Code section 10911(c) requires for that the lead agency "determine, based on the entire record, whether projected water supplies will be sufficient to satisfy the demands of the project, in addition to existing and planned future uses." Specifically, Water Code section 10910(c)(3) states that "If the projected water demand associated with the proposed project was not accounted for in the most recently adopted urban water management plan, or the public water system has no urban water management plan, the water supply assessment for the project shall include a discussion with regard to whether the total projected water supplies, determined to be available by the city or county for the project during normal, single dry, and multiple dry water years during a 20 year projection, will meet the projected water demand associated with the proposed project, in addition to the public water system's existing and planned future uses, including agricultural and manufacturing uses."

After review of CWC § 10912a, and Section 10912 (a)(5)(B), it was determined that the Westside Main Canal Battery Storage Project, a utility-scale energy storage complex incorporating lithium ion battery systems and/or flow battery technologies production plant is deemed a project as it is considered an industrial water use project use that is considered an industrial plant of 40 Acres or more in accordance to CWC §

10912a (5). The proposed project totals 148 Acres, additionally the proposed project intends to use 15 acres of temporary staging area, totaling 163 Acres, which exceeds the 40 Acre or more allowance.

4.1 EXECUTIVE SUMMARY

ICPDS has requested a WSA as part of the environmental review for the proposed Westside Main Canal Battery Storage. This study is intended for use by the Imperial County, the lead agency in its evaluation of water supplies for existing and future land uses. The evaluation examines the following water elements:

- Water availability during a normal year
- Water availability during a single dry, and multiple dry water years
- Water availability during a 20-year projection to meet existing demands
- Expected 30-year water demands of the project
- Reasonably foreseeable planned future water demands to be served by the Imperial Irrigation District

The proposed Project site is located within Imperial Irrigation District's (IID) Imperial Unit and district boundary and as such is eligible to receive water service. IID has adopted an Interim Water Supply Policy (IWSP) for Non-Agricultural Projects, from which water supplies can be contracted to serve new developments within IID's water service area. For applications processed under the IWSP, applicants shall be required to pay a processing fee and, after IID board approval of the corresponding agreement, will be required to pay a reservation fee(s) and annual water supply development fees.

The IWSP sets aside 25,000 acre-feet annually (AFY) of IID's Colorado River water supply to serve new non-agricultural projects. As of June, 2020, a balance of 23,800 AFY remain available under the IWSP for new non-agricultural projects ensuring reasonably sufficient supplies for such projects. The proposed Project water demand at full build out over the span of 30 years would be approximately 437.14 AF over the life of the project. The proposed Project estimated water demand of 210 AF for construction and 227.14 AF for operations over the 30-year life of the project, for a amortized total of 14.57 AFY over the 30- year life of the proposed Project, represent .06 percent (.06%) of the annual unallocated supply set aside for new nonagricultural projects. Thus, the proposed Project's demand would not affect IID's ability to provide water to other users in IID's water service area.

Table 1: Project APNs, Canals and Gates, & Land Relationship to Project

APN	IID CANAL	ABRV.	GATE	AC	LAND RELATIONSHIP TO PROJECT
051-350-009	N/A	N/A	N/A	NA	The Project would access the small portion of parcel within an IID easement for connection to the existing IID Campo Verde Imperial Valley 230 kilovolt (kV) radial gen-tie line during the construction of a substation on the Project site.
051-350-010	Westside Main	WSM	6	148	Project site, the site has not been farmed for the last 15 years. Project total of 148 AC.
051-350-011	Westside Main	WSM	6		
051-350-018	Fern Side Main	FSM	11A	15	Used for site access as a temporary construction staging area. This portion of the project totals 15 AC.
051-350-019	Fern Side Main	FSM	11A		

Table 2: Project Water Summary

Phase	Expected Years	Total Acre Feet (AF)	Notes
Construction	1-10 Years	210.0	It is anticipated that approximately 210 acre-feet (AF) of water would be required for the full buildout/construction of the site, over the projected 10-year construction time frame.
Operations	11-30 Years	224.07	Water usage for the O&M building and personnel would be less than 10,000 gallons per day (gpd), assumption 365 days a 365=3650000 Gal/Year equates to 11.20 AFY.
On-Site Water Storage for Mitigation Measures	11-30 Years	3.07	Additionally, approximately 1,000,000 gallons of raw water (3.07 AF) would be stored on site in storage tanks for fire suppression.[2]
Total	30 Years	437.14	----------

Table 3: Amortized Project Water Summary

Project Water Use – Life of Project	Years	Total Years Combined*	Unallocated IWSP	% of Remaining Unallocated IWSP per Year**
14.57 AF Per Year	30 Years	437.14 AF	23,800 AF	.06 %

*(14.57 AF/Year x 30 Years)
**(14.57 AF/ YR/23,800 AC-FT/YR x 100)

5 PROJECT DESCRIPTION

Consolidated Edison Development (CED, Applicant) is proposing to develop 148 Acres known as the Westside Main Battery Storage Project (proposed Project, Project) which would provide a utility-scale energy storage complex with lithium ion battery systems, and/or flow battery technologies and behind-the-meter solar facilities distributed throughout the site. The Project would allow for excess, intermittent renewable energy to be stored and later dispatched optimally back into the electric grid as firm, reliable

[2] Applicant will not be flushing tanks used to store fire suppression water.

generation. The Project complements both the existing operational renewable energy facilities, and those planned for development, in Imperial County (County), and supports the broader Southern California bulk electric system. A brief project description and water summary can be summarized in both Table 2 and Table 3, both tables indicate that the applicant is proposing to utilize the following amount of water for construction operation and mitigation through the indicated phases for the project. As described in table 2, Project Water Summary, the construction phase is anticipated to last a duration of 1-10 years utilizing a total of 210 acre-feet (AF). The operation phase will follow construction phase during the 11-30-year period and is anticipated to use a total of 224.07 AF of water. All potable water which will service the O&M building will be delivered to the site . Personnel for the site is projected to use less than 10,000 gallons per day (gpd) of potable water with the assumption that would operate 365 days a year which would be a total of 11.20 AFY. All drinkable water will be imported through an outside vendor contracted with a certified supplier. Additionally, dust mitigated measures are expected to be met throughout the operational phase of the project and throughout the 11-30-year period utilizing approximately 3.07 acre-feet of water. As described in table 3, amortized project water summary stated that the total years combined of 30 years totals 437.14 acre-feet which equates to 14.57 AFY.

5.1 PROJECT OBJECTIVES

The Project is pursuing the following objectives:

1. To construct and operate utility-scale energy storage technologies that are safe, efficient, and environmentally responsible.
2. To provide load-serving entities and system operators the ability to effectively manage intermittent renewable generation on the grid, thereby creating reliable, dispatchable generation upon demand.
3. To facilitate deployment of additional renewable energy resources in furtherance of the State of California Renewable Portfolio Standard.
4. To develop an up to 2,000 MW energy storage facility on previously disturbed land that is no longer used for agricultural production.
5. To promote local economic development by maximizing the utilization of the local workforce for a variety of trades and businesses.

5.2 PROJECT LOCATION AND SITE DESCRIPTION

The Project is proposed to be in the unincorporated Mount Signal area of the County, approximately 8.0 miles southwest of the city of El Centro and approximately 5.3 miles north of the U.S.-Mexico border (Figure 1-Project Site Regional Location). The project site is comprised of two parcels, Assessor Parcel Number (APN) 051-350-010 and APN 051-350-011, totaling approximately 148 acres. These parcels have limited access corridors for vehicular traffic and are considered less desirable for agricultural production, as no farming activities have occurred in the last 15 years.

The project site is located approximately one-third mile north of the Imperial Valley Substation (IV Substation) and directly south of the intersection of Liebert Road and the Imperial Irrigation District's (IID) WSM (the Canal). The project site is bound by the WSM Canal to the north, Bureau of Land Management (BLM) lands to the south and west, and vacant private land to the east. The Campo Verde solar generation facility is located north of the project site, across the WSM Canal. The two project parcels will be developed as a utility-scale energy storage complex. The project will utilize portions of two parcels located north of the Canal (APN 051-350-019 owned by IID and APN 051-350-018 owned by a private landowner) for site access and as a temporary construction staging area.

5.3 CURRENT SITE CONDITIONS

The site is comprised of two parcels, Assessor Parcel Number (APN) 051-350-010 and APN 051-350-011, totaling approximately 148 acres. This land has limited access corridors for vehicular traffic and was historically used for agricultural production but has not been farmed for the last 15 years. The Project would also utilize portions of two parcels located north of the IID's WSM Canal (APN 051-350-019 owned by IID and APN 051-350-018 owned by a private landowner) for site access and as a temporary construction staging area totaling approximately 15 acres. The land currently is vacant with little to no vegetation and is comprised of native with sandy loam composition see **Figure 2**.

Figure 1 Project Site Regional Location Map

Westside Main Battery Storage Project

Figure 2 Aerial Map of Project Vicinity

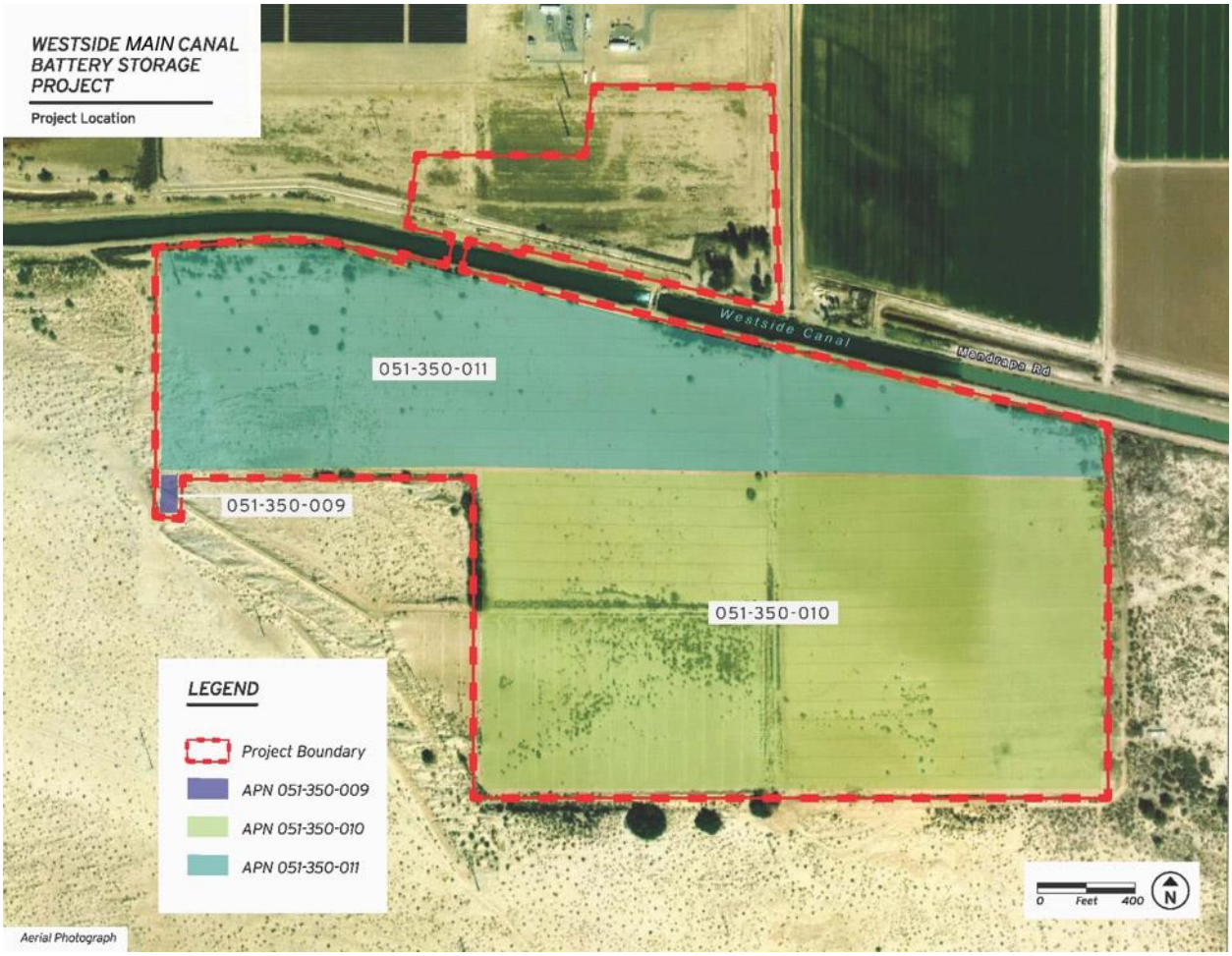
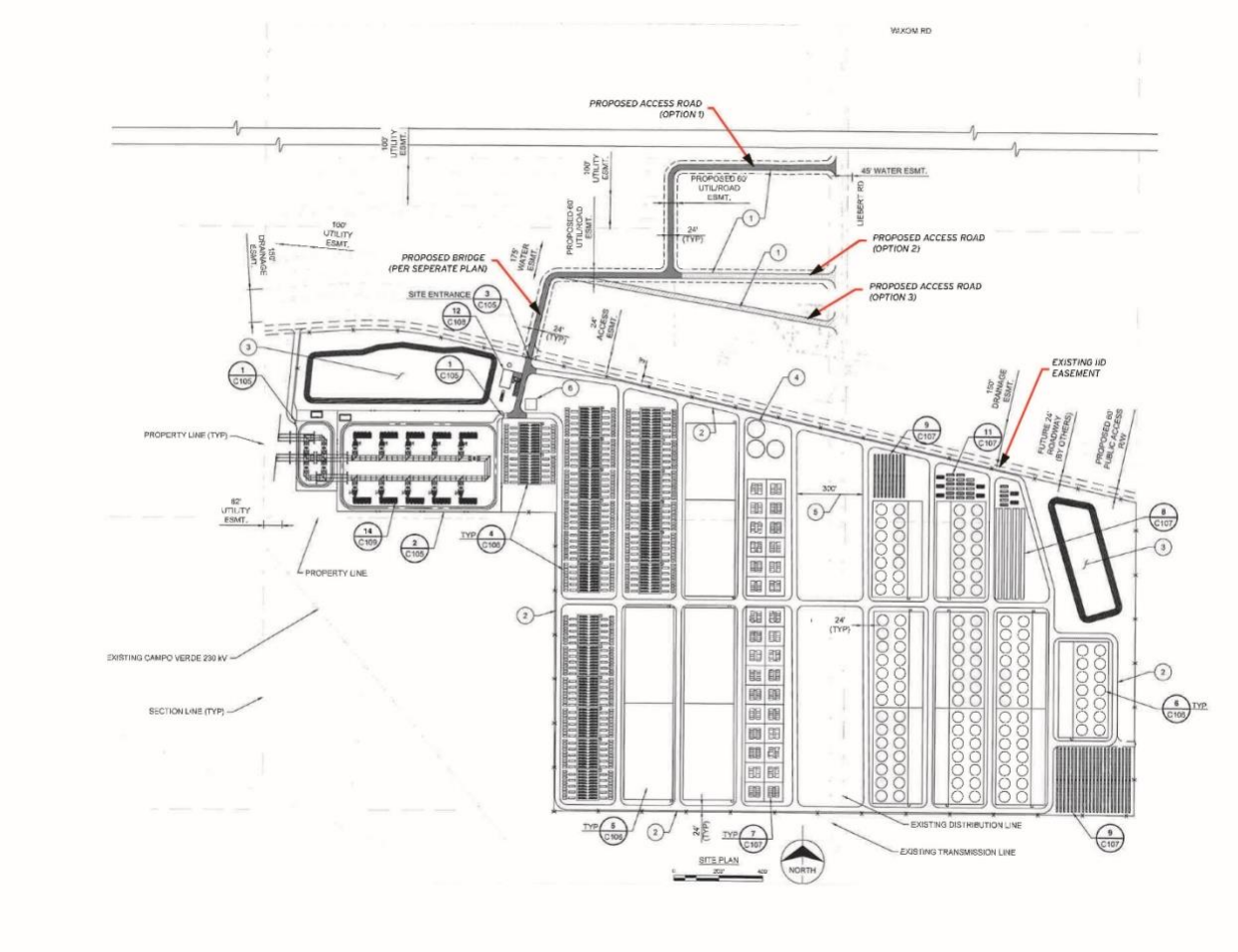


Figure 3 Project Layout/Site Plan

Westside Main Canal Battery Storage Project



6 PROJECT COMPONENTS

The project is expected to be constructed in 3 to 5 phases over a 10-year period, with each phase ranging from approximately 25 megawatts (MW) up to 350 MW per phase. Construction of the first phase includes roads, bridge, and common facilities, and the first battery storage facility and, if approved, is anticipated to begin in 2021 with completion expected in 2022. Subsequent phases would then be completed as demand/market conditions require.. The total nameplate (or rated capacity) capacity of the project at full build-out (all phases completed) is approximately 2,000 MW. On-site photovoltaic (PV) solar generation would serve as station auxiliary power and be deployed throughout the project site as both rooftop solar on buildings, as well as ground-mounted solar. Figure 3 shows the conceptual site plan for the project with a representation of the various energy storage technologies, ground and roof-mounted solar, common facilities within the Project site, and vehicular access and bridge outside the Project site.

6.1 PHASING

The timing and energy storage capacity of the Project's phases would be dependent on commercial contracts for the energy/capacity to be stored/discharged in response to the need for energy storage to manage renewable energy growth throughout the greater southern California area. This energy storage complex would thus become a valuable tool for commercial customer(s) and system operators to better manage intermittent renewable generation by converting it into reliable, dispatchable generation. The date for project build-out is currently not known and would be dependent on the factors listed above. It is anticipated that each phase would be constructed within 1-2 years of each other.

6.2 COMMON COMPONENTS

The Project would consist of multiple phases of development, construction, and operation of an energy storage facility. Although the Applicant plans to build the energy storage components over time in multiple phases, the first phase of Project construction would include the majority of required construction activities. The first phase would include construction of the Operating and Maintenance (O&M) facilities, water connections and fire suppression systems for the Project, storm water retention, substation, and legal permanent vehicle access, as well as the first energy storage facility. As per the site plan (see Figure 2), the northwest area of the Project serves as the location for the common facilities, which include

substation(s) and the O&M building. With the project being built in phases, the necessary infrastructure, such as water-mains, retention ponds and access roads, would be built out to serve the project phases from west to east and be expanded over time to serve each phase.

A summary of the common facilities is presented below:

- 230 KV Loop-In Substation o Connection to Campo Verde Imperial Valley 230 kV radial transmission line o Located on Applicant property
- Project substation
- O&M building
- Project parking
- Storm water detention basins
- Fencing and Gates

Large industrial buildings, warehouses, engineered containers, and/or electrolyte storage tanks would be the primary structures needed to house the main project components. Other components to be located on the project site and adjacent to the proposed buildings/warehouses include some of the following:

- Inverters, transformers, power distribution panels
- Underground water-main loop for Project operation and fire prevention
- Underground wiring to connect to Project substation
- Project site access roads (unpaved/crushed rock)
- 5 Raw Water storage tanks, 200,000 gallon capacity each
- Heating, Ventilation, and Air Conditioning (HVAC) units
- Ground-mounted or roof-mounted PV arrays
- Energy Storage sites
- Emergency backup generator(s).

6.3 OPERATIONS AND MAINTENANCE FACILITIES

The O&M building described in Phase One above is expected to be the only manned facility on the site and would include upto 20 full-time employees at full project build-out working allocated shifts during a 24-hour period. Water usage for the O&M facilities and personnel would be less than 10,000 gallons per day (gpd). No offices or staffed control centers would be located within the storage-specific warehouses/buildings. For sanitary waste, the Project would include a septic leach field to be located near the O&M building. The proposed O&M building would also require an HVAC unit.

6.4 WATER CONNECTIONS

During construction, the Project would utilize at least two temporary connections to the WSM Canal for dust suppression and other construction uses such as concrete production. Permanent water to serve the Project's non-potable operational water requirements and fire suppression needs would come from the WSM Canal. Water infrastructure for the non-potable operational water requirements/fire suppression would be laid underground throughout the site by open trenching. A segment of line from the project boundary to the connection at the WSM Canal would be constructed by a horizontal directional underground bore to connect to an IID Canal tap. It is anticipated that approximately 210 acre-feet (AF) of water would be required for the full buildout/construction of the site, over the projected 10-year construction time frame.

Following construction, potable water will be delivered to the site from local water suppliers. This potable water would be used for operations using on-site aboveground storage tanks. Water usage for the O&M building and personnel would be less than 10,000 gallons per day (gpd). Additionally, approximately five (5), 2,000,000 gallons of water would be stored on site in storage tanks for fire suppression. The project would connect to the WSM Canal consistent with the IID approved encroachment permit secured for the Project. The applicant intends to maintain the water allocated within the fire suppression tanks by regularly testing and treating its pH maintaining its viability. This use for fire suppression water was accounted for in the WSA. The applicant does not intend to flush out fire suppression water.

PERMANENT VEHICLE ACCESS

There are no circulation element roadways in the immediate vicinity of the project site. The nearest freeways are Interstate (I)-8, located 4.6 miles north of the project site, and State Route (SR) 98, located 5.2 miles south of the project site. Drew Road, a 2-lane Collector, is located 1.3 miles east of the project site. All other roadways in the immediate vicinity of the project site are rural roadways. All roadways that would be used to access the project site from Interstate 8 are currently paved, except for the portion of Liebert Road south of Wixom Road. However, this segment would be improved prior to project operation. Permanent access to the project site will be via a private maintained road from Liebert Road on to a Private Bridge that will cross the IID's Westside Main Canal, through an IID encroachment permit.

6.5 PROJECT ACCESS ROADS

Prior to any construction on the main project site (Phase 1), vehicular access for the Project would need to be established. The proposed Project site is surrounded by private landowners to the east, BLM land to the south and west, and IID maintenance roads and the Canal to the north. Due to the property having no current legal direct vehicular access routes, the Applicant is proposing to construct private access roads on both the north and south side of the canal on private land and a permanent clear-span bridge over the Canal. The proposed private access roads would be designed and constructed in accordance with County standards.

6.6 CLEAR-SPAN BRIDGE

The permanent new clear-span bridge would span the Canal to connect to a proposed access road on the north side of the Canal. The north proposed access road would ultimately connect the project to Liebert Road. Construction of the permanent clear-span bridge spanning the IID's WSM requires CED to have access to both the north side and the south of the Canal to perform the necessary construction activities. In addition to being necessary to facilitate construction of the new permanent clear-span bridge, access from the south side of the WSMwould allow CED to commence construction on the initial phase (Phase I) of the battery storage project simultaneously, thereby shortening the duration of construction and potentially minimizing the associated impacts. CED is evaluating various options for temporary construction access, including accessing the project site from the south side of the Canal off SR98, as well as options involving access from the north side of the Canal from I-8. The preferred temporary access option would be used until construction of the permanent bridge is completed.

6.7 CONSTRUCTION

The project consists of multiple phases of development, construction, and operation of an energy storage facility. Although the project applicant plans to build the energy storage components over time in multiple phases, the first phase of the project construction of the O&M facilities, water /fire suppression for the project, storm water retention basins, substations, and legal permanent vehicle access, as well as the first energy storage facility.

Prior to any construction on the main project site, vehicular access for the project is required. The project is surrounded by the private landowners to the east, BLM land to the south and west, and IID maintenance roads and the WSM Canal to the north. Due to the property having no legal direct vehicular access routes,

the applicant is proposing to construct a private access road on both the north and south side of the canal on private land and a bridge over the WSM Canal. The project proposes a new private clear-span bridge to span the WSM Canal, which will connect to a proposed access road easement on the north side of the WSM Canal. The north proposed access road will ultimately connect the project to Liebert Road.

6.8 CONSTRUCTION EQUIPMENT AND WORKFORCE

Construction would include the use of standard construction equipment such as scrapers, excavators, loaders, and water trucks, and other similar machinery. Construction equipment would be used for site preparation activities such as clearing, grading, perimeter fencing, development of staging areas and site access roads, and would involve facility installation activities, including support masts, trenching utility connections, construction of electrical distribution facilities, O&M building, access roads, and a clear-span bridge. Delivery trucks also would bring materials to the site.

6.9 FIRE PROTECTION/FIRE SUPPRESSION

Fire protection systems for battery systems will be designed in accordance with California Fire Code 2016 and will take into consideration the recommendations of the National Fire Protection Association (NFPA) 855. Depending on the technology used in a phase, fire suppression agents such as Novec 1230 or FM 200, or water may be used as a suppressant. In addition, fire prevention methods will be implemented to reduce potential fire risk, including voltage, current and temperature alarms. Energy storage equipment will comply with UL-9540 and will account for the results of UL-9540A. The project has the potential to utilize either lithium-ion batteries and/or flow batteries. Flow batteries are generally not flammable and do not require fire suppression systems. In locations where equipment is located within buildings, automated fire sprinkler systems will be designed in accordance with California Fire Code. A fire loop system and fire hydrants will be located throughout the site for general fire suppression. Buildings and containers for both lithium-ion and flow batteries will be unoccupied enclosures. These buildings will have an automatic sprinkler system designed in accordance with California Fire Code Section 903. To mitigate potential hazards, redundant separate methods of failure detection will be implemented. These include alarms from the Battery Management System (BMS), including voltage, current, and temperature alarms. Detection methods for off gas detection will be implemented, as applicable. These are in addition to other protective measures such as ventilation, overcurrent protection, battery controls operating batteries within designated parameters, temperature and humidity controls, smoke detection, and maintenance in

accordance with manufacturer guidelines. Flow battery tanks would be designed to have secondary containment in the event of a failure. Remote alarms will be installed for operations personnel as well as emergency response teams in addition to exterior hazard lighting. In addition, an Incidence Response Plan will be implemented depending upon the technology installed for each phase.

The fire suppression systems will be designed in accordance with the 2016 California Fire Code or current Fire Code at the time of construction. A fire loop system will be installed around the site with fire hydrants spaced at 300' intervals in accordance with fire flow requirements. The fire loop will be built out and extended to serve each phase as the site is developed. Fire water will be obtained by tapping into the WSM Canal and will be stored in tanks on the applicant's property. Raw water from the WSM Canal will be used to fill a total of 5 tanks with a capacity of 200,000 gallons each. The tanks will be required to provide the needed fire flow volume at full build out and will be located on the project site. The tanks will also be installed in phases as the site is developed as required by Federal, State and Local fire regulations. The fire suppression system will consider National Fire Protection Agency (NFPA) 855 standards. Depending on the technology used in a particular phase, fire suppression agents such as Novec 1230 or FM 200 may be used. In addition, fire prevention methods will be implemented to reduce potential fire risk, including voltage, current and temperature alarms. Energy storage equipment will comply with UL9540 and will account for the results of UL-9540A. The 1,000,000 gallons of raw water will be monitored and tested to maintain viable pH levels. This use for fire suppression water was accounted for in the WSA. The applicant will not flush tank mitigation water out but rather be utilizing water as needed though the mitigation measures specified. The applicant will not be flushing any fire suppression water stored on site.

PROJECT OPERATION

Operation of the project would require routine maintenance and security. It is anticipated that the Project would employ a plant manager and an O&M manager, as well as the addition of a facility manager once the complex deploys 500 MW of generation. The complex would also employ staff technicians, with at least one additional technician for every approximately 250 MW of generation. It is expected that the project would employ a total of 20 full-time employees at full build-out. Water usage for the O&M facilities would be less than 10,000 gpd of treated water.

7 DESCRIPTION OF IID SERVICE AREA

The proposed Project site is located in Imperial County,California. The County is comprised of approximately 4,597 square miles or 2,942,080 acres.[3] Imperial County is bordered by San Diego County to the west, Riverside County to the north, the Colorado River/Arizona boundary to the east, and 84 miles of International Boundary with the Republic of Mexico to the south. Approximately fifty percent of Imperial County is undeveloped land under federal ownership and jurisdiction. The Salton Sea accounts for approximately 11 percent of Imperial County's surface area. In 2019, fifteen percent (15%) of the area was in irrigated agriculture (463,948 acres), including 14,676 acres of the Yuma Project, some 35 sections or 5,600 acres served by Palo Verde Irrigation District (PVID), and 443,672 acres served by IID.3F4, 4F5

The area served by IID is located in the Imperial Valley, which is generally contiguous with IID's Imperial Hydrologic Unit, lies south of the Salton Sea, north of the U.S./Mexico International Border, and generally in the 658,942-acre area between IID's Westside Main and East Highline Canals.[8] In 2019, IID delivered untreated water to 443,677 net irrigated acres, predominantly in the Imperial Valley, along with small areas of East and West Mesa land.

The developed area consists of seven incorporated cities (Brawley, Calexico, Calipatria, El Centro, Holtville, Imperial and Westmorland), three unincorporated communities (Heber, Niland, Seeley), and three institutions (Naval Air Facility [NAF] El Centro, Calipatria CDCR, and Centinela CDCR) and supporting facilities. Figure 4 provides a map of the IID Imperial Unit boundary, as well as cities, communities, and main canals.

7.1 CLIMATE FACTORS

Imperial Valley, located in the Northern Sonoran Desert, has a subtropical desert climate characterized by hot, dry summers and mild winters. Clear and sunny conditions typically prevail, and frost is rare. The region receives 85 to 90 percent of possible sunshine each year, the highest in the United States. Winter temperatures are mild, rarely dropping below 32°F, but summer temperatures are very hot, with more

[3] *Imperial County General Plan*, Land Use Element 2008 Update
[4] *USBR website:* Yuma Project. *7 June 2017, PVID website:* About Us, *Acreage Map. 7 June 2017.*
[5] Palo Verde Irrigation District Acreage Map <http://www.pvid.org/pviddocs/acreage_2012.pdf> 7 June 2013
[8] *IID Annual Inventory of Areas Receiving Water Years 2019, 2018, 2017*

than 100 days over 100°F each year. The remainder of the year has a relatively mild climate with temperatures averaging in the mid-70s.

The 100-year average climate characteristics are provided in **Table 4.** Rainfall contributes around 50,000 AF of effective agricultural water per inch of rain. Most rainfall occurs from November through March; however, summer storms can be significant in some years. Annual areawide rainfall is shown in **Table 5.** The thirty-year, 1990-2019, average annual air temperature was 73.6°F and average annual rainfall was 2.82 inches, see **Table 4** and **Table 3.** This record shows that while average annual rainfall has fluctuated, the 10-year average temperatures have slightly increased over the 30-year averages.

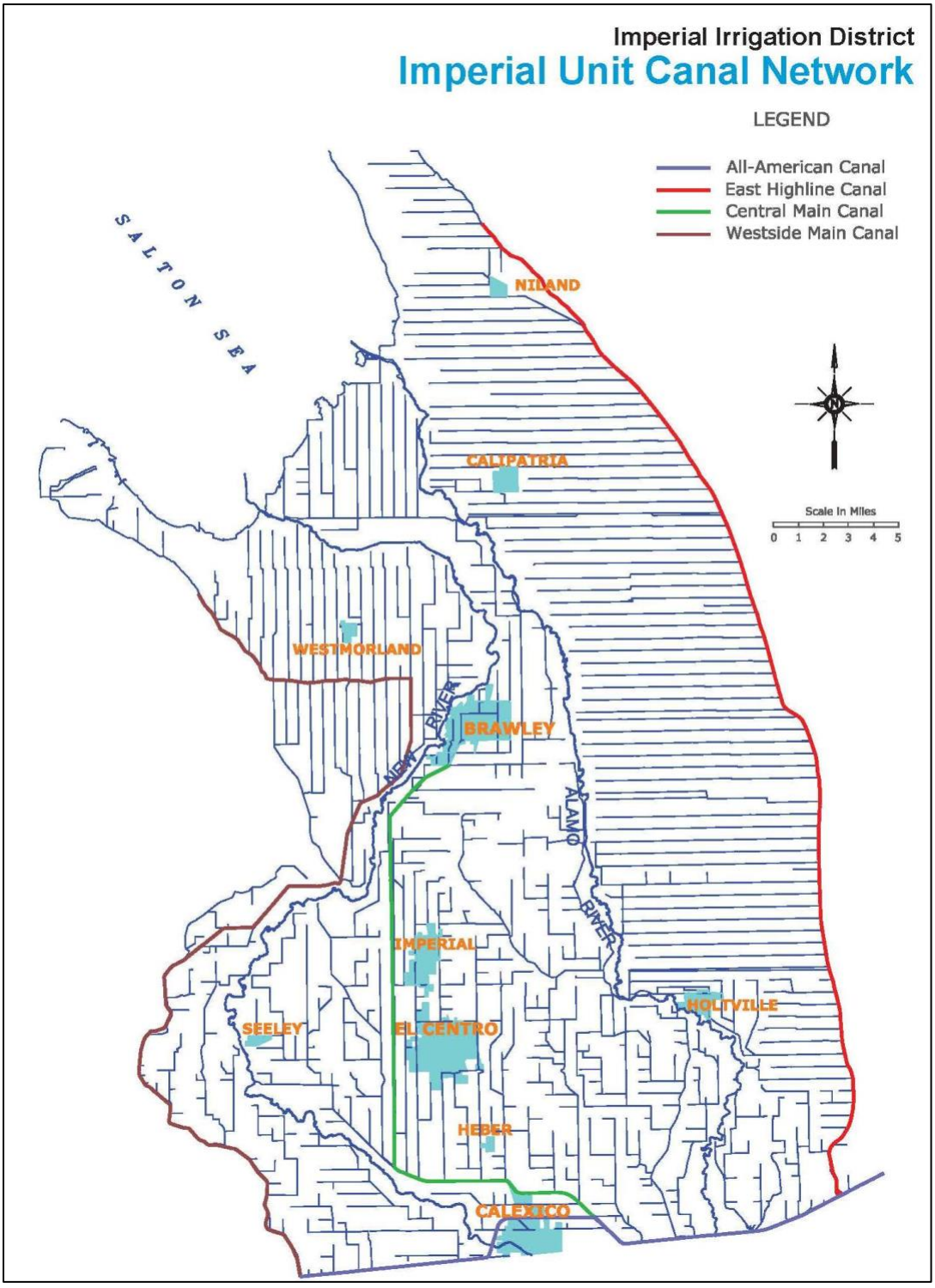


Figure 4: IID Imperial Unit Boundary and Canal Network

Table 4: Climate Characteristics, Imperial, CA 100-Year Record, 1920-2019

Climate Characteristic	Annual Value
Average Precipitation (100-year record, 1920-2019)	2.82 inches (In)
Minimum Temperature, Jan 1937	16 °F
Maximum Temperature, July 1995	121 °F
Average Minimum Temperature, 1920-2019	48.2 °F
Average Maximum Temperature, 1920-2019	98.2 °F
Average Temperature, 1920-2019	72.9 °F

Source: IID Imperial Weather Station Record

Table 5: IID Areawide Annual Precipitation (In), (1990-2019)

1990	1991	1992	1993	1994	1995	1996
1.646	3.347	4.939	2.784	1.775	1.251	0.685
1997	1998	1999	2000	2001	2002	2003
1.328	2.604	1.399	0.612	0.516	0.266	2.402
2004	2005	2006	2007	2008	2009	2010
4.116	4.140	0.410	1.331	1.301	0.619	3.907
2011	2012	2013	2014	2015	2016	2017
2.261	2.752	2.772	1.103	2.000	1.867	2.183
2018	2019					
1.305	3.017					

Source: Computation based on polygon average of CIMIS as station came online in the WIS.[9]

Notable from Table 3 (above) and 5 (below) is that while average annual rainfall measured at IID Headquarters in Imperial, California, has been decreasing, monthly average temperatures are remarkably consistent.

[9] From 1/1/1990-3/23/2004, 3 CIMIS stations: Seeley, Calipatria/Mulberry, Meloland; 3/24/2004-7/5/2009, 4 CIMIS stations (added Westmorland N.); 7/6/2009-12/1/2009, 3 CIMIS stations: Westmorland N. offline; 12/2/2009-2/31/2009, 4 CIMIS stations, Westmorland N. back online; 1/1/2010-9/20/2010.

Table 6: Monthly Mean Temperature (°F) – Imperial, CA 10-Year, 30-Year & 100-Year (2010-2019, 1990-2019, 1920-2019)

	Jan			Feb			Mar			Apr		
	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg
10-year	82	32	56	85	35	60	94	41	67	99	47	72
30-year	81	33	57	84	37	60	92	41	66	99	47	71
100-year	80	31	55	84	35	59	91	40	64	98	46	71
	May			Jun			Jul			Aug		
	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg
10-year	105	52	76	115	61	87	114	70	92	114	70	92
30-year	105	54	78	113	60	86	114	68	92	113	70	92
100-year	105	52	78	112	59	86	114	68	92	113	68	91
	Sep			Oct			Nov			Dec		
	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg
10-year	111	61	87	100	51	75	91	38	64	81	31	55
30-year	110	62	87	101	50	76	90	39	64	79	32	55
100-year	110	60	86	101	49	75	90	38	63	80	32	56

Table 7 Monthly Mean Rainfall (In) – Imperial, CA 10-Year, 30-Year & 100-Year (2010-2019, 1990-2019, 1920-2019)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
10-year	0.54	0.28	0.15	0.04	0.08	0.01	0.24	0.28	0.28	0.14	0.26	0.48	2.77
30-year	0.49	0.41	0.26	0.07	0.06	0.00	0.14	0.22	0.27	0.16	0.22	0.40	2.65
100-year	0.40	0.39	0.24	0.10	0.03	0.00	0.12	0.34	0.38	0.25	0.21	0.51	2.82

Source: IID WIS: CIMIS stations polygon calculation (Data provided by IID staff).

Imperial Valley depends on the Colorado River for its water, which IID transports, untreated, to delivery gates for agricultural, municipal, industrial (including geothermal and solar energy), environmental (managed marsh), recreational (lakes), and other non-agricultural uses. IID supplies the cities, communities, institutions and Golden State Water (which includes all or portions of Calipatria, Niland, and some adjacent Imperial County territory) with untreated water that they treat to meet state and federal drinking water guidelines before distribution to their customers. Industries outside the municipal areas treat the water to required standards of their industry. To comply with U.S. Environmental Protection Agency (USEPA) requirements and avoid termination of canal water service, residents in the IID water service area who do not receive treated water service must obtain alternative water service for drinking and cooking from a state-approved provider. To avoid penalties that could exceed $25,000 a day, IID strictly enforces this rule. The IID Water Department tracks nearly 4,000 raw water service accounts required by the California Department of Public Health (CDPH) to have alternate state approved drinking water service. IID maintains a small-acreage pipe and drinking water database and provides an annual compliance update to CDPH.

7.2 IMPERIAL VALLEY HISTORIC AND FUTURE LAND AND WATER USES

Agricultural development in the Imperial Valley began at the turn of the twentieth century. In 2019, gross agricultural production for Imperial County was valued at $2,015,843,000 of which approximately $1,693,308,120 was produced in the IID water service area.[10] While the agriculture-based economy is expected to continue, land use is projected to change somewhat over the years as industrial and/or alternative energy development and urbanization occur in rural areas and in areas adjacent to existing urban centers, respectively.

Imperial Valley's economy is gradually diversifying. Agriculture will likely continue to be the primary industry within the valley; however, two principal factors anticipated to reduce crop acreage are renewable energy (geothermal and solar) and urban development. Over the next twenty years, urbanization is expected to slightly decrease agriculture land use to provide space for an increase in residential, commercial and industrial uses. The transition from agricultural land use typically results in a net decrease in water demand for municipal, commercial, and solar energy development, and a net increase in water demand for geothermal energy development. Local energy resources include geothermal, wind, biomass and solar. The County General Plan provides for development of energy production centers or energy parks within Imperial County. [8] Alternative energy facilities will help California meet its statutory and regulatory goals for increasing renewable power generation and use and decrease water demands in Imperial County.

The IID Board has adopted the following policies and programs to address how to accommodate water demands under the terms of the QSA/Transfers Agreements and minimize potential negative impacts on agricultural water uses:

Imperial Integrated Regional Water Management Plan (IRWMP): Adopted by the board on December 18, 2012, and by the County of Imperial, to meet the basic requirement of California Department of Water Resources (CDWR) for an IRWMP. In all, 14 local agencies adopted the 2012 Imperial IRWMP.

Interim Water Supply Policy for Non-Agricultural Projects: Adopted by the board on September 29, 2009, to ensure sufficient water will be available for new development, in particular, anticipated renewable energy projects until the board selects and implements capital development projects such as those considered in the Imperial IRWMP.

[10] https://agcom.imperialcounty.org/wp-content/uploads/2020/12/2019-Crop-Report.pdf

Temporary Land Conversion Fallowing Policy: adopted by the board on May 8, 2012, and revised on March 29, 2016, to provide a framework for a temporary, long-term fallowing program to work in concert with the IWSP and IID's coordinated land use/water supply strategy.

Equitable Distribution Plan: adopted by the board on October 28, 2013, to provide a mechanism for IID to administer apportionment of the district's quantified annual supply of Colorado River water; IID board approved a resolution repealing the Equitable Distribution Plan (EDP) on February 6, 2018.

In addition, water users within the IID service area are subject to the statewide requirement of reasonable and beneficial use of water under the California Constitution, Article X, section 2.

7.3 IMPERIAL INTEGRATED REGIONAL WATER MANAGEMENT PLAN (OCTOBER 2012)

The Imperial Integrated Regional Water Management Plan (IRWMP) serves as the governing document for regional water planning to meet present and future water resource needs and demands by addressing such issues as additional water supply options, demand management, and determination and prioritization of uses and classes of service provided. In November 2012, the Imperial County Board of Supervisors approved the Imperial IRWMP, and the City of Imperial City Council and the IID Board of Directors approved it in December 2012. Approval by these three (3) stakeholders meets the basic requirement of California Department of Water Resources (CDWR) for an IRWMP. Through the IRWMP process, IID presented to the region stakeholders options in the event long-term water supply augmentation is needed, such as water storage and banking, recycling of municipal wastewater, and desalination of brackish water[11]. As discussed herein, long term water supply augmentation is not anticipated to be necessary to meet proposed Project demands.

Chapter 5 of the 2012 Imperial IRWMP addresses water supplies (Colorado River and groundwater), demand, baseline and forecasted through 2050, and IID water budget. Chapter 12 addresses projects, programs and policies, and funding alternatives. Chapter 12 of the IRMWP lists, and Appendix N details, a set of capital projects that IID might pursue, including the amount of water that might result (AFY) and cost ($/AF) if necessary. These also highlight potential capital improvement projects that could be implemented in the future.

[11] October 2012 Imperial Integrated Regional Water Management Plan, Chapter 12.

Imperial Valley historic non-agricultural water demand for 2015 and forecasted future for 2020 to 2055 are provided in Table -8 in five-year increments. Total water demand for non-agricultural uses is projected to be 199.3 KAF in the year 2055. This is a forecasted increase in the use of non-agricultural water from 107.2 KAF for the period of 2015 to 2055.[12] These values were modified from Chapter 5 of the Imperial IRWMP to reflect updated conditions from the IID Provisional Water Balance for calendar year 2015. Due to the recession in 2009 and other factors, non-agricultural growth projections have lessened since the 2012 Imperial IRWMP. *Projections in* Table 8 *have been adjusted have been adjusted (reduced by 3%) to reflect IID 2015 delivery data.*

Table 8: Non-Agricultural Water Demand within IID Water Service Area, 2015-2055 (KAFY)

	2015	2020	2025	2030	2035	2040	2045	2050	2055
Municipal	30.0	33.9	36.8	39.8	41.5	46.3	51.7	57.8	61.9
Industrial	26.4	33.1	39.8	46.5	53.2	59.9	66.6	73.3	80.0
Other	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Feedlots/Dairies	17.8	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Envr Resources	8.3	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Recreation	7.4	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Service Pipes	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Total Non Ag	**107.4**	**123.5**	**133.3**	**142.8**	**151.2**	**162.7**	**174.8**	**187.6**	**198.4**

Notes: 2015 non-agricultural water demands are from IID 2015 Provisional Water Balance rerun 03/28/2019 2020-2055 demands are modified from 2012 Imperial IRWMP Chapter 5, Table 5-22 p 5-50 based on IID 2015 Provisional Water Balance. Industrial Demand includes geothermal, but not solar, energy production.

Agricultural evapotranspiration (ET) demand of approximately 1,476.4 KAF in 2015, decreased in 2019 to around 1,494.9 KAF. The termination of fallowing programs provided 103.5 KAF of water for Salton Sea mitigation in 2017. Forecasted agricultural ET remains constant, as reductions in water use are to come from efficiency conservation not reduction in agricultural production. Market forces and other factors may impact forecasted future water demand.

Table 9 provides the 2015 historic and 2020-2055 forecasted agricultural consumptive use and delivery demand within the IID water service area. When accounting for agriculture ET, tailwater and tilewater, total agricultural consumptive use (CU) demand ranges from 2,157.9 KAF in 2015 to 2,209.5 KAF in 2055. Forecasted total agricultural delivery demand is around 1 KAFY higher than the CU demand, ranging from 2,158.9 KAF in 2015 to 2,210.5 KAF in 2055.

[12] Wistaria Solar Ranch, Final Environmental Impact Report, December 2014

Table 9: Historic and forecasted Agricultural Water Consumptive Use and Delivery Demand within IID Water Service Area, 2015-2055 (KAFY)

	2015	2020	2025	2030	2035	2040	2045	2050	2055
Ag ET from Delivered & Stored Soil Water	1,475.4	1,567.5	1,567.5	1,567.5	1,567.5	1,567.5	1,567.5	1,567.5	1,567.5
Ag Tailwater to Salton Sea	282.9	318.0	268.0	218.0	218.0	218.0	218.0	218.0	218.0
Ag Tilewater to Salton Sea	398.6	423.0	423.0	423.0	423.0	423.0	423.0	423.0	423.0
Total Ag CU Demand	**2,157.9**	**2,308.5**	**2,258.5**	**2,208.5**	**2,208.5**	**2,208.5**	**2,208.5**	**2,208.5**	**2,208.5**
Subsurface Flow to Salton Sea	*1.0*	*1.0*	*1.0*	*1.0*	*1.0*	*1.0*	*1.0*	*1.0*	*1.0*
Total Ag Delivery Demand	**2,158.9**	**2,309.5**	**2,259.5**	**2,209.5**	**2,209.5**	**2,209.5**	**2,209.5**	**2,209.5**	**2,209.5**

Notes: 2015 record from IID 2015 Provisional Water Balance rerun 06/28/2019; 2020-2055 forecasts from spreadsheet used to develop Figure 19, et seq. in Imperial IRWMP Chapter 5 (Data provided by IID staff). Next Update 2021

In addition to agricultural and nonagricultural water demands, system operational demands must be included to account for operational discharge, main and lateral canal seepage; and for All American Canal (AAC) seepage, river evaporation and phreatophyte ET from Imperial Dam to IID's measurement site at AAC Mesa Lateral 5. These system operation demands are shown in **Table 10.** IID measures system operational uses at All-American Canal Station 2900 just upstream of Mesa Lateral 5 Heading. Total system operational use for 2019 was 257.9 KAF, including 10 KAF of LCWSP input, 39.8 KAF of seepage interception input, and 30.9 KAF of unaccounted canal water input.

Table 10: IID System Operations Consumptive Use within IID Water Service Area and from AAC at Mesa Lateral 5 to Imperial Dam, (KAF), 2019

Delivery System Evaporation	24.6
Canal Seepage	91.7
Canal Spill	13.1
Lateral Spill	118.1
Seepage Interception	-39.8
Unaccounted Canal Water	30.9
Total System Operational Use, In valley	**238.6**
Imperial Dam to AAC @ Mesa Lat 5	29.2
LCWSP	-10
Total System Operational Use in 2019	**257.8**
Source: 2019 Water Balance rerun 04/22/2020	

7.4 IID INTERIM WATER SUPPLY POLICY FOR NON-AGRICULTURAL PROJECTS (SEPTEMBER 2009)

The IID IWSP provides a mechanism to address water supply requests for projects being developed within the IID service area. The IWSP designates up to 25,000 AFY of IID's annual Colorado River water supply for new non-agricultural projects, provides a mechanism and process to develop a water supply agreement for any appropriately permitted project, and establishes a framework and set of fees to ensure the supplies used to meet new demands do not adversely affect existing users by funding water conservation or augmentation projects as needed.[13]

Depending on the nature, complexity, and water demands of the proposed project, new projects may be charged a one-time Reservation Fee and an annual Water Supply Development Fee for the contracted water volume used solely to assist in funding new water supply projects. The applicability of the fee to certain projects will be determined by IID on a case-by-case basis, depending on the proportion of types of land uses and water demand proposed for a project. The 2019 fee schedule is shown in **Table 11.**

Table 11: Interim Water Supply Policy 2019 Annual Non-Agricultural Water Supply Development Fee Schedule

Annual Demand (AF)	Reservation Fee ($/AF)*	Development Fee ($/AF)*
0-500	$73.15	$292.62
501-1000	$103.00	$412.00
1001-2500	$129.34	$517.34
2501-5000	$159.77	$639.07

Adjusted annually in accordance with the Consumer Price Index (CPI).

IID customers with new projects receiving water under the IWSP will be charged the appropriate water rate based on measured deliveries, see IID Water Rate Schedules. As of January 2021, IID has issued one Water Supply Agreement for 1,200 AFY, leaving a balance of 23,800 AFY of supply available for contracting under the IWSP.

[13] *IID website: Municipal, Industrial and Commercial Customers.*

7.5 IID TEMPORARY LAND CONVERSION FALLOWING POLICY (MAY 2012)

Imperial County planning officials determined that renewable energy facilities were consistent with the county's agricultural zoning designation and began issuing CUPs for these projects with ten- to twenty-year terms. These longer-term, but temporary, land use designations were not conducive to a coordinated land use/water supply policy as envisioned in the Imperial IRWMP, because temporary water supply assignments during a conditional use permit (CUP) term were not sufficient to meet the water supply verification requirements for new project approvals. Agricultural landowners also sought long-term assurances from IID that, at project termination, irrigation service would be available for them to resume their farming operations.

Based on these conditions, IID determined it had to develop a water supply policy that conformed to the local land use decision-making in order to facilitate new development and economic diversity in Imperial County which has resulted in the IID Temporary Land Conversion Fallowing Policy (TLCFP).[14] IID concluded that certain lower water use projects could still provide benefits to local water users. The resulting benefits; however, may not be to the same categories of use (e.g., MCI) but to the district as a whole.

At the general manager's direction, staff developed a framework for a fallowing program that could be used to supplement the IWSP and meet the multiple policy objectives envisioned for the coordinated land use/water supply strategy. Certain private projects that, if implemented, will temporarily remove land from agricultural production within the district's water service area include renewable solar energy and other non-agricultural projects. Such projects may need a short-term water supply for construction and decommissioning activities and longer-term water service for facility operation and maintenance or for treating to potable water standards. Conserved water will be credited to the extent that water use for the project is less than historic water use for the project site's footprint as determined by the ten year water use history.[15]

Water demands for certain non-agricultural projects are typically less than that required for agricultural production. This reduced demand allows water to be made available for other users under IID's annual consumptive use cap. This allows the district to avail itself of the ability during the term of the QSA/Transfer Agreements under CWC Section 1013 to create conserved water through projects such as temporary land

[14] *IID website: Temporary Land Conversion Fallowing Policy (TLCFP), and The TLCFP are the sources of the text for this section.*
[15] For details of how water conservation yield attributable to land removed from agricultural production and temporarily fallowed is computed, see TLCFP for Water Conservation Yield.

fallowing conservation measures. This conserved water can then be used to satisfy the district's conserved water transfer obligation and for environmental mitigation purposes.

Under the terms of the legislation adopted to facilitate the QSA/Transfer Agreements and enacted in CWC Section 1013, the TLCFP was adopted by the IID board on May 8, 2012 and revised on March 29, 2016 to update the fee schedule for 2016. This policy provides a framework for a temporary, long-term fallowing program to work in concert with the IWSP. While conserved water generated from the TLCFP is limited by law for use for water transfer or environmental purposes, by satisfying multiple district objectives the TLCFP serves to reduce efficiency conservation and water use reduction demands on IID water users, thus providing district wide benefits.

7.6 IMPERIAL IRRIGATION DISTRICT'S WATER RIGHTS

The laws and regulations that influence IID's water supply are noted in this section. The Law of the River (as described below), along with the 2003 Quantification Settlement Agreement and Related Agreements serve as the laws, regulations and agreements that primarily influence the findings of this WSA. These agreements grant California the most senior water rights along the Colorado River and IID specify that IID has access to 3.1 MAF per year. These two components will influence future decisions in terms of water supply during periods of shortages.

CALIFORNIA LAW

IID's has a longstanding right to divert Colorado River water, and IID holds legal titles to all of its water and water rights in trust for landowners within the district (CWC §20529 and §22437; *Bryant v. Yellen*, 447 U.S. 352, 371 (1980), fn.23.). Beginning in 1885, a number of individuals, as well as the California Development Company, made a series of appropriations of Colorado River water under California law for use in the Imperial Valley. The rights to these appropriations were among the properties acquired by IID from the California Development Company.

LAW OF THE RIVER

Colorado River water rights are governed by numerous compacts, state and federal laws, court decisions and decrees, contracts, and regulatory guidelines collectively known as the "Law of the River." Together, these documents form the basis for allocation of the water, regulation of land use, and management of the Colorado River water supply among the seven basin states and Mexico.

Of all regulatory literature that governs Colorado River water rights, the following are the specifics that impact IID:

- Colorado River Compact (1922)
- Boulder Canyon Project Act (1928)
- California Seven-Party Agreement (1931)
- Arizona v. California US Supreme Court Decision (1964, 1979)
- Colorado River Basin Project Act (1968)
- Quantification Settlement Agreement and Related Agreements (2003)
- 2003 Colorado River Water Delivery Agreement: Federal QSA for purposes of Section 5(b) Interim Surplus Guidelines (CRWDA)
- 1970 Criteria for Coordinated Long-Range Operation of Colorado River Reservoirs
- Annual Operating Plan (AOP) for Colorado River Reservoirs
- 2007 Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lakes Powell and Mead (2007 Interim Guidelines)

COLORADO RIVER COMPACT (1922)

With authorization of their legislatures and urging of the federal government, representatives from the seven Colorado River basin states began negotiations regarding distribution of water from the Colorado River in 1921. In November 1922, an interstate agreement called the "Colorado River Compact" was signed by the representatives giving the Lower Basin perpetual rights to annual apportionments of 7.5 million acre-feet (MAF) of Colorado River water (75 MAF over ten years). The Upper Basin was to receive the remainder, which based on the available hydrological record was also expected to be 7.5 MAF annually, with enough left over to provide 1.5 MAF annually to Mexico.

BOULDER CANYON PROJECT ACT (1928)

Provisions in the 1928 Boulder Canyon Project Act made the compact effective and authorized construction of Hoover Dam and the All-American Canal, and served as the United States' consent to accept the Compact. Through a Presidential Proclamation on June 25, 1929, this act resulted in ratification of the Compact by six of the basin states and required California to limit its annual consumptive use to 4.4 MAF of the lower basin's apportionment plus not less than half of any excess or surplus water unapportioned by the Compact. A lawsuit was filed by the State of Arizona after its refusal to sign. Through the implementation of its 1929 Limitation Act, California abided by this federal mandate. The Boulder Canyon Act authorized the Secretary of the Interior (Secretary) to "contract for the storage of water… and for the delivery thereof… for irrigation and domestic uses," and additionally defined the lower basin's 7.5 MAF apportionment split, with an annual allocation 0.3 MAF to Nevada, 2.8 MAF to Arizona, and 4.4 MAF to California. Even though the three states never formally settled or agreed to these terms, a 1964 Supreme Court decision (*Arizona v. California*, 373

U.S. 546) declared the three states' consent to be insignificant since the Boulder Canyon Project Act was authorized by the Secretary.

CALIFORNIA SEVEN-PARTY-AGREEMENT (1931)

Following implementation of the Boulder Canyon Project Act, the Secretary requested that California make recommendations regarding distribution of its apportionment of Colorado River water. In August 1931, under chairmanship of the State Engineer, the California Seven-Party Agreement was developed and authorized by the affected parties to prioritize California water rights. The Secretary accepted this agreement and established these priorities through General Regulations issued in September of 1931. The first four (4) priority allocations account for California's annual apportionment of 4.4 MAF, with agricultural entities using 3.85 MAF of that total. Additional priorities are defined for years in which the Secretary declares that excess waters are available.

ARIZONA V. CALIFORNIA U.S. SUPREME COURT DECISION (1964, 1979)

The 1964 Supreme Court decision settled a 25-year disagreement between Arizona and California that stemmed from Arizona's desire to build the Central Arizona Project to enable use of its full apportionment. California's argument was that as Arizona used water from the Gila River, which is a Colorado River tributary, it was using a portion of its annual Colorado River apportionment. An additional argument from California was that it had developed a historical use of some of Arizona's apportionment, which, under the doctrine of prior appropriation, precluded Arizona from developing the project. California's arguments were rejected by the U.S. Supreme Court. Under direction of the Supreme Court, the Secretary was restricted from delivering water outside of the framework of apportionments defined by law. Preparation of annual reports documenting consumptive use of water in the three lower basin states was also mandated by the Supreme Court. In 1979, present perfected water rights (PPRs) referred to in the Colorado River Compact and in the Boulder Canyon Project Act were addressed by the Supreme Court in the form of a Supplemental Decree.

In March of 2006, a Consolidated Decree was issued by the Supreme Court to provide a single reference to the conditions of the original 1964 decrees and several additional decrees in 1966, 1979, 1984 and 2000 that stemmed from the original ruling. The Consolidated Decree also reflects the settlements of the federal reserved water rights claim for the Fort Yuma Indian Reservation.

COLORADO RIVER BASIN PROJECT ACT (1968)

In 1968, various water development projects in both the upper and lower basins, including the Central Arizona Project (CAP) were authorized by Congress. Under the Colorado River Basin Project Act, priority was given to California's apportionment over (before) the CAP water supply in times of shortage. Also under the act, the Secretary was directed to prepare long-range criteria for the Colorado River reservoir system in consultation with the Colorado River Basin States.

QUANTIFICATION SETTLEMENT AGREEMENT AND RELATED AGREEMENTS (2003)

With completion of a large portion of the CAP infrastructure in 1994, creation of the Arizona Water Banking Authority in 1995, and the growth of Las Vegas in the 1990s, California encountered increasing pressure to live within its rights under the Law of the River. After years of negotiating among Colorado River Compact States and affected California water delivery agencies, a Quantification Settlement Agreement and Related Agreements and documents were signed on October 10, 2003, by the Secretary of Interior, IID, Coachella Valley Water District (CVWD), Metropolitan Water District of Southern California (MWD), San Diego County Water Authority (SDCWA), and other affected parties.

The Quantification Settlement Agreement and Related Agreements (QSA/Transfer Agreements) are a set of interrelated contracts that resolve certain disputes among the United States, the State of California, IID, MWD, CVWD and SDCWA, for a period of 35 to 75 years, regarding the reasonable and beneficial use of Colorado River water; the ability to conserve, transfer and acquire conserved Colorado River water; the quantification and priority of Priorities 3(a) and 6(a)[16] within California for use of Colorado River water; and the obligation to implement and fund environmental impact mitigation.

[16] *Priorities 1, 2, 3(b), 6(b), and 7 of current Section 5 Contracts for the delivery of Colorado River water in the State of California and Indian and miscellaneous Present Perfected Rights within the State of California and other existing surplus water contracts are not affected by the QSA Agreement.*

Conserved water transfer agreements between IID and SDCWA, IID and CVWD, and IID and MWD are all part of the QSA/Transfer Agreements. For IID, these contracts identify conserved water volumes and establish transfer schedules along with price and payment terms. As specified in the agreements, IID will transfer nearly 415,000 AF annually over a 35-year period (or loner), as follows:

- to MWD 110,000 AF [modified to 105,000 AF in 2007],
- to SDCWA 200,000 AF,
- to CVWD and MWD combined 103,000 AF, and
- to certain San Luis Rey Indian Tribes 11,500 AFY of water.

All of the conserved water will ultimately come from IID system and on-farm efficiency conservation improvements. In the interim, IID has implemented a Fallowing Program to generate water associated with Salton Sea mitigation related to the impacts of the IID/SDCWA water transfer, as required by the State Water Resources Control Board, which is to run from 2003 through 2017. In return for its QSA/Transfer Agreements programs and deliveries, IID will receive payments totaling billions of dollars to fund needed efficiency conservation measures and to pay growers for conserved on-farm water, so IID can transfer nearly 14.5 MAF of water without impacting local productivity. In addition, IID will transfer to SDCWA 67,700 AFY annually of water conserved from the lining of the AAC in exchange for payment of lining project costs and a grant to IID of certain rights to use the conserved water. In addition to the 105,000 acre-feet of water currently being conserved under the 1988 IID/MWD Conservation Program, these more recent agreements define an additional 303,000 AFY to be conserved by IID from on-farm and distribution system conservation projects for transferred to SDCWA, CVWD, and MWD.

COLORADO RIVER WATER DELIVERY AGREEMENT (2003)[17]

As part of QSA/Transfer Agreements among California and federal agencies, the Colorado River Water Delivery Agreement: Federal QSA for purposes of Section 5(b) Interim Surplus Guidelines (CRWDA) was entered into by the Secretary of the Interior, IID, CVWD, MWD and SDCWA. This agreement involves the federal government because of the change in place of diversion from Imperial Dam into the All-American Canal to Parker Dam into MWD's Colorado River Aqueduct.

The CRWDA assists California to meet its "4.4 Plan" goals by quantifying deliveries for a specific number of years for certain Colorado River entitlements so transfers may occur. In particular, for the term of the CRWDA, quantification of Priority 3(a) was effected through caps on water deliveries to IID (consumptive

[17] *CRWDA: Federal QSA accessed 7 June 2017.*

use of 3.1 MAF per year) and CVWD (consumptive use of 330 KAF per year). In addition, California's Priority 3(a) apportionment between IID and CVWD, with provisions for transfer of supplies involving IID, CVWD, MWD and SDCWA are quantified in the CRWDA for a period of 35 years or 45 years (assumes SDCWA does not terminate in year 35) or 75 years (assumes SDCWA and IID mutually consent to renewal term of 30 years).

Allocations for consumptive use of Colorado River water by IID, CVWD and MWD that will enable California to stay within its basic annual apportionment (4.4 MAF plus not less than half of any declared surplus) are defined by the terms of the QSA/Transfer Agreements (**Table 12**). As specified in the QSA/Transfer Agreements, by 2026, IID annual use within (Imperial Valley) is to be reduced to just over 2.6 MAF of its 3.1 MAF quantified annual apportionment. The remaining nearly 500,000 AF (which includes the 67,000 AF from AAC lining) are to be transferred annually to urban water users outside of the Imperial Valley.

Table 12: CRWDA Annual 4.4 MAF Apportionment (Priorities 1 to 4) for California Agencies (AFY)

User	Apportionment (AFY)
Palo Verde Irrigation District and Yuma Project*	420,000
Imperial Irrigation District	3,100,000
Coachella Valley Water District	330,000
Metropolitan Water District of Southern California*	550,000
Total:	4,400,000

* PVID and Yuma Project did not agree to a cap; value represents a contractual obligation by MWD to assume responsibility for any overages or be credited with any volume below this value.
Notes: All values are consumptive use at point of Colorado River diversion: Palo Verde Diversion Dam (PVID), Imperial Dam (IID and CVWD), and Parker Dam (MWD). Source: IID Annual Water Report

Quantification of Priority 6(a) was effected through quantifying annual consumptive use amounts to be made available in order of priority to MWD (38 KAF), IID (63 KAF), and CVWD (119 KAF) with the provision that any additional water available to Priority 6(a) be delivered under IID's and CVWD's existing water delivery contract with the Secretary.[18] The CRWDA provides that the underlying water delivery contract with the Secretary remain in full force and effect. (*Colorado River Documents 2008*, Chapter 6, pages 6-12 and 6-13). The CRWDA also provides a source of water to effect a San Luis Rey Indian Water rights settlement. Additionally, the CRWDA satisfies the requirement of the 2001 Interim Surplus Guidelines (ISG) that a QSA be adopted as a prerequisite to the interim surplus determination by the Secretary in the ISG.

INADVERTENT OVERRUN PAYBACK POLICY (2003)

[18] When water levels in the Colorado River reservoirs are low, Priority 5, 6 and 7 apportionments are not available for diversion.

The CRWDA Inadvertent Overrun Payback Policy (IOPP), adopted by the Secretary contemporaneously with the execution of the CRWDA, provides additional flexibility to Colorado River management and applies to entitlement holders in the Lower Division States (Arizona, California and Nevada).[19] The IOPP defines inadvertent overruns as "Colorado River water diverted, pumped, or received by an entitlement holder of the Lower Division States that is in excess of the water users' entitlement for the year." An entitlement holder is allowed a maximum overrun of 10 percent (10%) of its Colorado River water entitlement.

In the event of an overrun, the IOPP provides a mechanism to payback the overrun. When the Secretary has declared a normal year for Colorado River diversions, a contractor has from one to three years to pay back its obligation, with a minimum annual payback equal to 20 percent of the entitlement holder's maximum allowable cumulative overrun account or 33.3 percent of the total account balance, whichever is greater. However, when Lake Mead is below 1125 feet on January 1, the terms of the IOPP require that the payment of the inadvertent overrun obligation be made in the calendar year after the overrun I reported in the USBR Lower Colorado Region Colorado River Accounting and Water Use Report [for] Arizona, California, and Nevada (Decree Accounting Report).[20]

1970 CRITERIA FOR COORDINATED LONG-RANGE OPERATION OF COLORADO RIVER RESERVOIRS

The 1970 Operating Criteria control operation of the Colorado River reservoirs in compliance with requirements set forth in the Colorado River Compact of 1922, the United States-Mexico Water Treaty of 1944, the Colorado River Storage Project Act of 1956, the Boulder Canyon Projects Act (Lake Mead) and the Colorado River Basin Project Act (Upper Basin Reservoirs) of 1968, and other applicable federal laws. Under these Operating Criteria, the Secretary makes annual determinations published in the USBR Annual Operating Plan for Colorado River Reservoirs (discussed below) regarding the release of Colorado River water for deliveries to the lower basin states. A requirement to equalize active storage between Lake Powell and Lake Mead when there is sufficient storage in the Upper Basin is included in these operating criteria. **Figure 5** identifies the major storage facilities at the upper and lower basin boundaries.

ANNUAL OPERATING PLAN FOR COLORADO RIVER RESERVOIRS (Applicable Only if Lake Mead has Surplus/Shortage)

[19] *USBR, 2003 CRWDA ROD Implementation Agreement, IOPP and Related Federal Actions Final EIS. Section IX. Implementing the Decision A. Inadvertent Overrun and Payback Policy. Pages 16-19 of 34.*
[20] *2003 CRWDA ROD. Section IX. A.6.c,, page 18 of 34.*

The AOP is developed in accordance with Section 602 of the Colorado River Basin Project Act (Public Law 90-537); the Criteria for Coordinated Long-Range Operations of Colorado River Reservoirs Pursuant to the Colorado River Basin Project Act of 1968, as amended, promulgated by the Secretary of the Interior; and Section 1804(c)(3) of the Grand Canyon Protection Act (Public Law 102-575). As part of the AOP process, the Secretary makes determinations regarding the availability of Colorado River water for deliveries to the lower basin states, including whether normal, surplus, and shortage conditions are in effect on the lower portion of the Colorado River.

2007 COLORADO RIVER INTERIM GUIDELINES FOR LOWER BASIN SHORTAGES (2007 INTERIM GUIDELINES)

A multi-year drought in the Colorado River Upper Basin triggered the need for the 2007 Interim Shortage Guidelines. In the summer of 1999, Lake Powell was essentially full with reservoir storage at 97 percent of capacity. However, precipitation fell off starting in October 1999 and 2002 inflow was the lowest recorded since Lake Powell began filling in 1963.[21],[22] By August 2011, inflow was 279 percent (279%) of average; however, drought resumed in 2012 and continued through calendar year 2018. Using the record in **Table 13,** average unregulated inflow to Lake Powell for water years 2000-2017 is 74 percent (74%); or if 2011 is excluded, 70 percent (70%) of the historic average, see **Table 13**.

Table 13: Unregulated Inflow to Lake Powell, Percent of Historic Average, 2000-2019

2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
62%	59%	25%	51%	49%	105%	73%	68%	102%	88%	73%
2011	2012	2013	2014	2015	2016	2017	2018	2019		
136%	35%	49%	90%	83%	80%	100%	43%	%36		

Source: Drought in the Upper Colorado River Basin (2000-2010), and UCR Water Operations: Historic Data (2011-2019)

[21] Water Year: October 1 through September 30 of following year, so water year ending September 30, 1999

[22] Drought in the Upper Colorado River Basin. August 2011

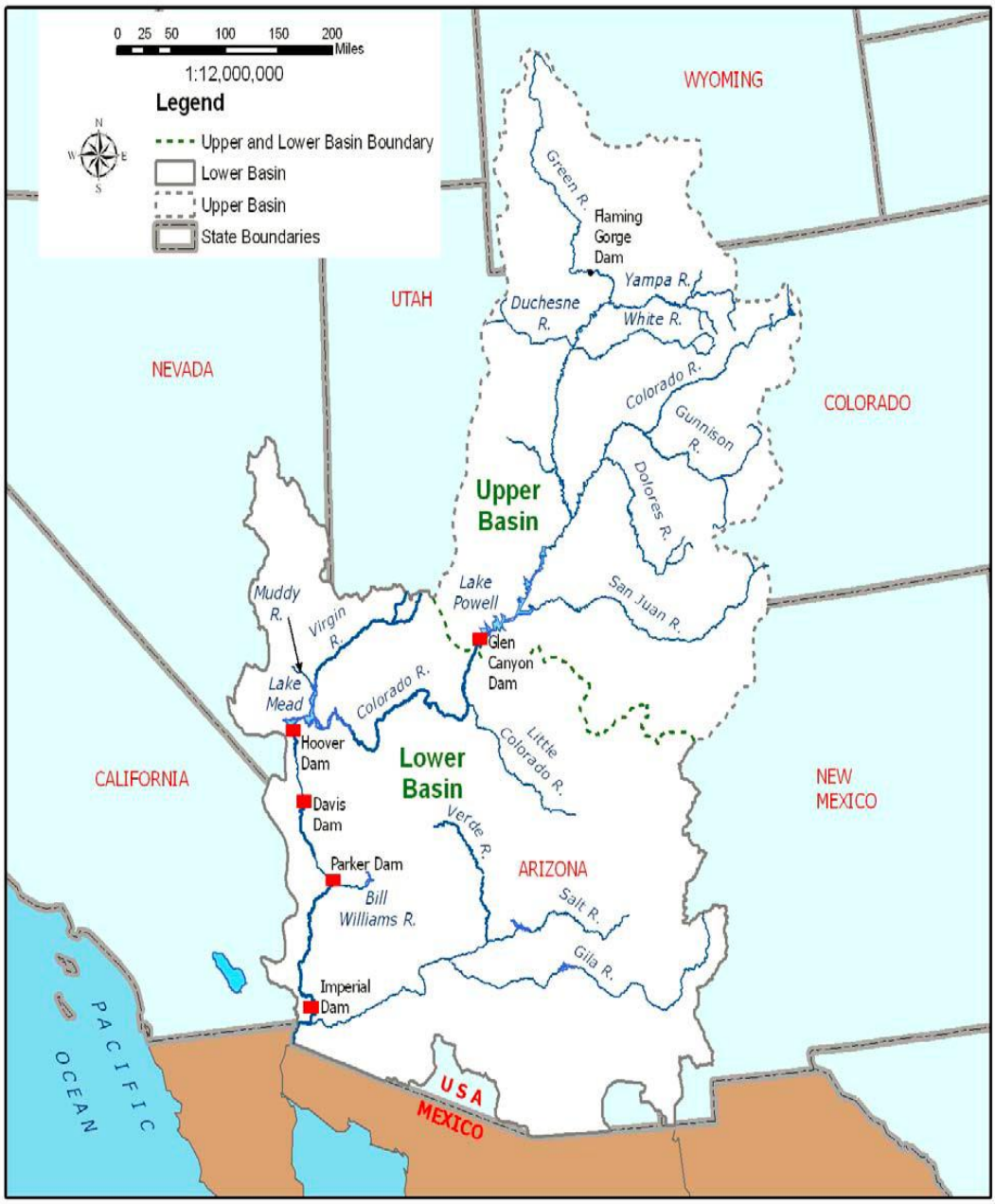


Figure 5 Major Colorado River Reservoir Storage Facilities and Basin Location Map

Source: **Final EIS – Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead, Volume 1 Chapter 1 Purpose and Need** , p I-10.

In the midst of the drought period, USBR developed 2007 Interim Guidelines with consensus from the seven basin states, which selected the Draft EIS Preferred Alternative as the basis for USBR's final determination. The basin states found the Preferred Alternative best met all aspects of the purpose and need for the federal action.[23]

The 2007 interim Guidelines Preferred Alternative highlights the following:

1. The need for the Interim Guidelines to remain in place for an extended period of time.
2. The desirability of the Preferred Alternative based on the facilitated consensus recommendation from the basin states.
3. The likely durability of the mechanisms adopted in the Preferred Alternative in light of the extraordinary efforts that the basin states and water users have undertaken to develop implementing agreements that will facilitate the water management tools (shortage sharing, forbearance, and conservation efforts) identified in the Preferred Alternative
4. That the range of elements in the Preferred Alternative will enhance the Secretary's ability to manage the Colorado River reservoirs in a manner that recognizes the inherent tradeoffs between water delivery and water storage.

In June 2007, USBR announced that a preferred alternative for Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations of Lake Powell and Lake Mead (Final Preferred Alternative) had been determined. The Final Preferred Alternative, based on the basin states' consensus alternative and an alternative submitted by the environmental interests called "Conservation Before Shortage," is comprised of four key operational elements which are to guide operations of Lake Powell and Lake Mead through 2026 are:

1. Shortage strategy for Lake Mead and Lower Division states: The Preferred Alternative proposed discrete levels of shortage volumes associated with Lake Mead elevations to conserve reservoir storage and provide water users and managers in the Lower Basin with greater certainty to know when, and by how much, water deliveries will be reduced during low reservoir conditions.

[23] USBR *Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead* <http://www.usbr.gov/lc/region/programs/strategies.html>

2. Coordinated operations of Lake Powell and Lake Mead: The Preferred Alternative proposed a fully coordinated operation of the reservoirs to minimize shortages in the Lower Basin and to avoid risk of curtailments of water use in the Upper Basin.
3. Mechanism for storage and delivery of conserved water in Lake Mead: The Preferred Alternative proposed the Intentionally Created Surplus (ICS) mechanism to provide for the creation, accounting, and delivery of conserved system and non-system water thereby promoting water conservation in the Lower Basin. Credits for Colorado River or non-Colorado River water that has been conserved by users in the Lower Basin creating an ICS would be made available for release from Lake Mead at a later time. The total amount of credits would be 2.1 MAF, but this amount could be increased up to 4.2 MAF in future years.
4. Modifying and extending elements of the Interim Surplus Guidelines (ISG). The ISG determines conditions under which surplus water is made available for use within the Lower Division states. These modifications eliminate the most liberal surplus conditions thereby leaving more water in storage to reduce the severity of future shortages.

With respect to the various interests, positions and views of the seven basin states, this provision adds an important element to the evolution of the legal framework for prudent management of the Colorado River. Furthermore, the coordinated operation element allows for adjustment of Lake Powell releases to respond to low reservoir storage conditions in either Lake Powell or Lake Mead[24]. States found the Preferred Alternative best met all aspects of the purpose and need for the federal action.[25] The 2007 Interim Guidelines are in place from 2008 through December 31, 2025 (through preparation of the 2026 Annual Operating Plan). Reclamation's Upper and Lower Colorado Basin Regions manage the operations of Lake Powell and Lake Mead pursuant to the Record of Decision for the 2007 Interim Guidelines.

LOWER COLORADO REGION WATER SHORTAGE OPERATIONS

The drought in the Colorado River watershed has continued through 2019 despite an increase in observed runoff in August 2011 when unregulated inflow to Lake Powell was 279 percent of the average. Since 2000,

[24] *For a discussion of the 2007 Interim Guidelines, see: Intermountain West Climate Summary by TheWestern Water Assessment, issued Jan. 21, 2008, Vol. 5, Issue 1, January 2009 Climate Summary, Feature Article, pages 5-7, 22 Mar 2013.*

[25] *USBR Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead.*

Lake Mead has been below the "average" level of lake elevations (see **Figure 6**). Such conditions have caused the preparation of shortage plans for waters users in Arizona and Nevada, and in Mexico.

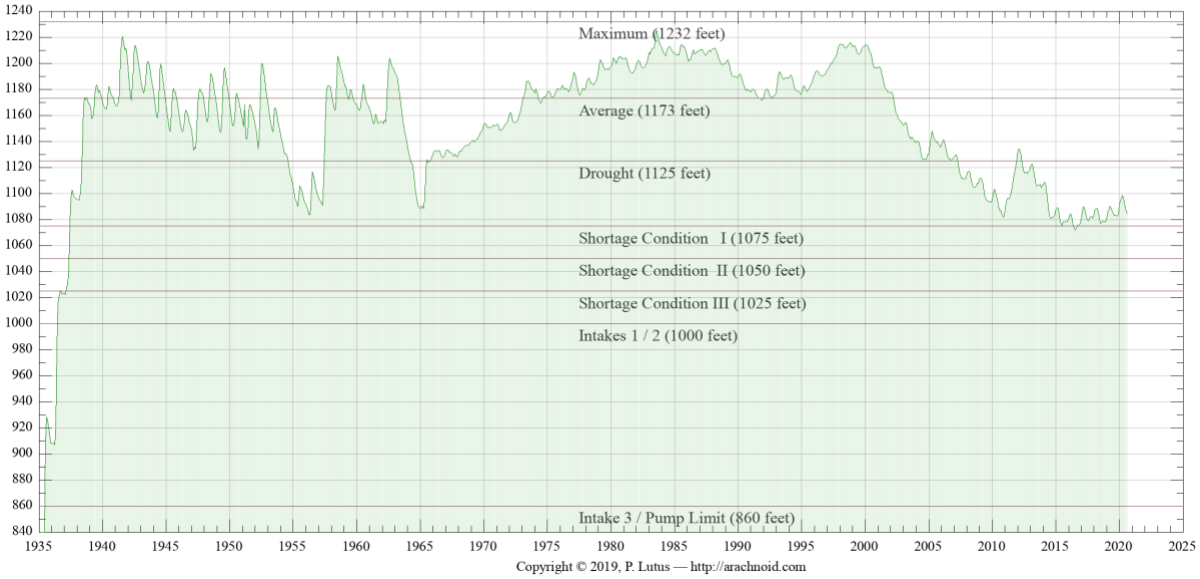


Figure 6 Lake Mead Water Elevation Levels 2020

visit <http://www.arachnoid.com/NaturalResources/index.html>

According to guidelines put in place in 2007, Arizona and Nevada begin to take shortages when the water elevation in Lake Mead falls below 1,075 feet. The volumes of shortages increase as water levels fall to 1,050 feet and again at 1,025 feet. In 2012, Mexico agreed to participate in a 5-year pilot agreement to share specific volumes of shortages at the same elevations. The 2007 interim shortage guidelines contain no reductions for California, which has senior water rights to the Central Arizona Project water supply, through 2025 when the guidelines expire. If Lake Mead's elevation drops to 1,025 feet, a re-consultation process would be triggered among the basin states to address next steps. Consultation would start out within each state, then move to the three lower basin states, followed by all seven states and the USBR. Mexico will then be brought into the process unless they choose to participate earlier.

8 IMPERIAL IRRIGATION DISTRICT WATER SUPPLY AND DEMAND

SB 610 requires an analysis of a normal, single dry, and multiple dry water years to show that adequate water is available for the proposed Project in various climate scenarios. Water availability for this Project in a normal year is no different from water availability during a single-dry and multiple-dry year scenarios.

This is due to the small effect rainfall has on water availability in IID's arid environment along with IID's strong entitlements to the Colorado River water supply. Local rainfall does have some impact on how much water is consumed (i.e. if rain falls on agricultural lands, those lands will not demand as much irrigation), but does not impact the definition of a normal year, a single-dry year or a multiple-dry year scenario.

9 WATER AVAILABILITY – NORMAL YEAR

IID is entitled to annual net consumptive use of 3.1 MAF of Colorado River, less its QSA/Transfer Agreement obligations. Imperial Dam, located north of Yuma, Arizona, serves as a diversion structure for water deliveries throughout southeastern California, Arizona and Mexico. Water is transported to the IID water service area through the AAC for use throughout the Imperial Valley. IID historic and forecast net consumptive use volumes at Imperial Dam from CRWDA Exhibit B are shown in **Table 14.** Volumes 2003-2019 are adjusted for USBR Decree Accounting historic records. Volumes for 2020-2077 are from CRWDA Exhibit B modified to reflect 2014 Letter Agreement changes to the 1988 IID/MWD Water Conservation Agreement.[26]

9.1 GROUNDWATER, AGRICULTURAL PRACTICES AND DRAINAGE

Groundwater underlying the Imperial Valley is generally of poor quality unsuitable for domestic or irrigation purposes. Groundwater in the area of the project is brackish (contains a high salt content). Agricultural practices in the Imperial Valley, including in the project vicinity, consist of aerial and ground application of pesticides and application of chemical fertilizers to both ground and irrigation water at the farm delivery gate. Most of the agricultural fields in the valley are underlain by tile drainage systems (perforated pipelines encapsulated by sand/gravel) installed at a depth of approximately 5 to 7 feet below the ground surface. The tile drains maintain groundwater at levels below the root system of crops. The tile drains transport soluble salts contained in the Colorado River water and that are leached from the soil profile during irrigation. The tile drainage is collected in IID's drainage system, most of which discharges into the New and Alamo rivers and flows to the Salton Sea. A few IID drains discharge directly to the Salton Sea.

[26] 2014 Imperial Irrigation District Letter Agreement for Substitution and Conservation Modifications to the IID/MWD Water Conservation Agreement - December 17, 2014.

Table 14: IID Historic and Forecast Net Consumptive Use for Normal Year, Single-Dry Year and Multiple-Dry Year Water Supply, 2003-2037, et seq. (CRWDA Exhibit B)

IID Quantification and Transfers, Volumes in KAF at Imperial Dam [1]										
Col 1	2	3	4	5	6	7	8	9	10	11
	IID Priority 3(a)									
		IID Reductions								IID Net [Available for] Consumptive Use (Col 2 - 10)
Year	IID 3(a) Quantified Amount	1988 MWD Transfer [2]	SDCWA Transfer	AAC Lining	Salton Sea Mitigation SDCWA Transfer [3]	Intra-Priority 3 CVWD Transfer	MWD Transfer w\ Salton Sea Restoration [4]	Misc. PPRs	IID Total Reduction (Σ Cols 3-9) [5]	
2003	3,100	105.1	10.0	0.0	0.0	0.0	0.0	11.5	126.6	2978.2
2004	3,100	101.9	20.0	0.0	15.0	0.0	0.0	11.5	148.4	2743.9
2005	3,100	101.9	30.0	0.0	15.0	0.0	0.0	11.5	158.4	2756.8
2006	3,100	101.2	40.0	0.0	20.0	0.0	0.0	11.5	172.7	2909.7
2007	3,100	105.0	50.0	0.0	25.0	0.0	0.0	11.5	191.5	2872.8
2008	3,100	105.0	50.0	8.9	26.0	4.0	0.0	11.5	205.4	2825.1
2009	3,100	105.0	60.0	65.5	30.1	8.0	0.0	11.5	280.1	2566.7
2010	3,100	105.0	70.0	67.7	33.8	12.0	0.0	11.5	294.8	2540.5
2011	3,100	103.9	63.3	67.7	0.0	16.0	0.0	11.5	262.4	2915.8
2012	3,100	104.1	106.7	67.7	15.2	21.0	0.0	11.5	326.2	2,903.2
2013	3,100	105.0	100.0	67.7	71.4	26.0	0.0	11.5	381.6	2,554.9
2014	3,100	104.1	100.0	67.7	89.2	31.0	0.0	11.5	403.5	2,533.4
2015	3,100	107.82	100.0	67.7	153.3	36.0	0.0	11.5	476.3	2,480.9
2016	3,100	105.0	100.0	67.7	130.8	41.0	0.0	11.5	456.0	2,504.3
2017	3,100	105.0	100.0	67.7	105.3	45.0	0.0	9.9	434.5	2,548.2
2018	3,100	105	130	67.7	0.1	63	0.0	11.5	377.3	2,722.8
2019	3,100	105	160	67.7	46.55	68	0.0	11.5	458.75	2,687.8
2020	3,100	105	193	67.7	0	73	0	11.5	450.2	2,649.8
2021	3,100	105	205	67.7	0	78	0	11.5	467.2	2,632.8
2022	3,100	105	203	67.7	0	83	0	11.5	470.2	2,629.8
2023	3,100	105	200	67.7	0	88	0	11.5	472.2	2,627.8
2024	3,100	105	200	67.7	0	93	0	11.5	477.2	2,622.8
2025	3,100	105	200	67.7	0	98	0	11.5	482.2	2,617.8
2026	3,100	105	200	67.7	0	103	0	11.5	487.2	2,612.8
2027	3,100	105	200	67.7	0	103	0	11.5	487.2	2,612.8
2028	3,100	105	200	67.7	0	103	0	11.5	487.2	2,612.8
2029-37	3,100	105	200	67.7	0	103	0	11.5	487.2	2,612.8
2038-47 [6]	3,100	105	200	67.7	0	103	0	11.5	487.2	2,612.8
2048-77 [7]	3,100	105	200	67.7	0	50 [8]	0	11.5	434.2	2,665.8

1. 2003 through 2019, volumes are adjusted for actual USBR Decree Accounting values; IID Total Reduction and Net Available for Consumptive Use may not equal Col 2 minus Col 10, if IID conservation/use was not included in Exhibit B.
2. 2014 Letter of Agreement provides that, effective January 2016 total amount of conserved water available is 105 KAFY
3. Salton Sea Mitigation volumes may vary based on conservation volumes and method of conservation.
4. *This transfer is not likely given lack of progress on Salton Sea restoration as of 2018; shaded entries represents volumes that may vary..*
5. Reductions include conservation for 1988 IID/MWD Transfer, IID/SDCWA Transfer, AAC Lining; SDCWA Transfer Mitigation, MWD Transfer w/Salton Sea Restoration (if any); Misc. PPRs. Amounts are independent of increases and reductions as allowed by the IOPP.
6. Assumes SDCWA does not elect termination in year 35.
7. Assumes SDCWA and IID mutually consent to renewal term of 30 years.
8. Modified from 100 KAFY in CRWDA Exhibit B; stating in 2018 MWD will provide CVWD 50 KAFY of the 100 KAFY.

Source: CRWDA: Federal QSA Exhibit B, p 13; updated values from 2019 QSA Implementation Report

Due to limits on annual consumptive use of Colorado River water under the QSA/Transfer Agreements, IID's water supply during a normal year is best represented by the CRWDA Exhibit B Net Available for Consumptive Use (**Table 14, Column 11**). The annual volume is IID Priority 3(a) Quantified Amount of 3.1 million acre-feet (MAF**) (Table 14, Column 2)** less the IID transfer program reductions for each year **(Table**

-14, Columns 3-9). IID suggests Table 14 which assumes full use of IID's quantified water supply, be used in determining base normal year water availability.

CRWDA Exhibit B Net Available for Consumptive Use volumes less system operation demand represents the amount of water available for delivery by IID Water Department to its customers each year. In a normal year, perhaps 50,000 to 100,000 AF of effective rainfall would fall in the IID water service area. However, rainfall is not evenly distributed throughout the IID water service area and is not taken into account by IID in the submittal of its Estimate of Diversion (annual water order) to the USBR.

10 Expected Water Availability – Single Dry and Multiple Dry Years

When drought conditions exist within the IID water service area, as has been the case for the past decade or so, the water supply available to meet agricultural and non-agricultural water demands remains the same as normal year water supply because IID continues to rely solely on its entitlement for Colorado River water. Due to the priority of IID water rights and other agreements, drought conditions affecting Colorado River water supplies cause shortages for Arizona, Nevada and Mexico, before impacting California and IID. Accordingly, the Net Available for Consumptive Use volumes in Table 14, Column 11 represents the water supply at Imperial Dam available for diversion by IID in single-dry year and multiple-dry year scenarios.

Under CRWDA Inadvertent Overrun Payback Policy (IOPP), IID has some flexibility to manage its water use. When the water level in Lake Mead is above 1,125 feet, an overrun of its USBR approved annual water order is permissible, and IID has up to three years to pay water use above the annual water order. When Lake Mead's water level is at or below 1,125 feet on January 1 in the calendar year after the overrun is reported in the USBR Lower Colorado Region Decree Accounting Report, the IOPP prohibits additional overruns and requires that outstanding overruns be paid back in the subsequent calendar year rather than in three years as allowed under normal conditions; that is, the payback is to be made in the calendar year following publication of the overrun in the USBR Decree Accounting Report. For historic IID annual rainfall, net consumptive use, transfers and IID underrun/overrun amounts see Table 14. For the purposes of the WSA, years with a shortage condition that impacts non-agricultural projects such as an IOPP payback obligation constitute "dry" years for IID.

In years of inadvertent overrun payback, conditions such as those in Sections 3.7 and 3.8 of the 2012 IWSP Water Agreement may go into effect, with the result that less water would be available for non-agricultural development contractors. Under such conditions, IID has requested that Consolidated Edison Development

(CED) (the "Applicant"), work with IID to ensure it can manage the reduction. IID has further indicated that, provided a water supply agreement is approved and executed by IID under the provisions of the IWSP, IID will have sufficient water to support the water of this Project.

Table 15: IID Annual Rainfall (In), Net Consumptive Use and Underrun/Overrun Amounts (AF), 1988-2018

Year	IID Total Annual Rainfall	IID Water Users	IID/MWD Transfer	IID/ SDCWA Transfer	SDCWA Transfer Salton Sea Mitigation	IID Underrun / Overrun	IID/CVWD Transfer	AAC Lining
1988		2,947,581						
1989		3,009,451						
1990	91,104	3,054,188	6,110					
1991	192,671	2,898,963	26,700					
1992	375,955	2,575,659	33,929					
1993	288,081	2,772,148	54,830					
1994	137,226	3,048,076	72,870					
1995	159,189	3,070,582	74,570					
1996	78,507	3,159,609	90,880					
1997	64,407	3,158,486	97,740					
1998	100,092	3,101,548	107,160					
1999	67,854	3,088,980	108,500					
2000	29,642	3,112,770	109,460					
2001	12,850	3,089,911	106,880					
2002	12,850	3,152,984	104,940					
2003	116,232	2,978,223	105,130	10,000	0	**6,555**		
2004	199,358	2,743,909	101,900	20,000	15,000	166,408		
2005	202,983	2,756,846	101,940	30,000	15,000	159,881		
2006	19,893	2,909,680	101,160	40,000	20,000	**12,414**		
2007	64,580	2,872,754	105,000	50,000	25,021	**6,358**		
2008	63,124	2,825,116	105,000	50,000	26,085	47,999	4,000	8,898
2009	30,0354	2,566,713	105,000	60,000	30,158	237,767	8,000	65,577
2010	189,566	2,545,593	105,000	70,000	33,736	207,925	12,000	67,700
2011	109,703	2,915,784	103,940	63,278	0	**82,662**	16,000	67,700
2012	133,526	2,903,216	104,140	106,722	15,182	**134,076**	21,000	67,700
2013	134,497	2,554,845	105,000	100,000	71,398	65,981	26,000	67,700
2014	53,517	2,533,414	104,100	100,000	89,168	797	31,000	67,700
2015	97,039	2,480,933	107,820	100,000	153,327	97,188	36,000	67,700
2016	90,586	2,504,258	105,000	100,000	130,796	62,497	41,000	67,700
2017	105,919	2,548,164	105,000	100,000	105,311	30,227	45,000	67,700
2018	63,318	2,625,422	105,000	130,000	0	0	63,000	67,700
2019	146,384	2,558,136	105,000	160,000	46,555	34,215	68,000	67,700

Notes: Volumes in acre-feet and except Total Annual Rainfall are USBR Decree Accounting Report record at Imperial Dam.
IID Total Annual Rainfall from IID Provisional Water Balance, first available calculations are for 1990
Not all IID QSA programs are shown on this table.
Source: USBR Decree Accounting reports, except IID Total Rainfall and IID Overrun/Underrun is a separate calculation
Source: 2019 IID QSA Implementation Report and 2019 IID SWRCB Report, page 31 of 335; IID Total Rainfall and IID Overrun/ Underrun is a separate calculation.

10.1 Equitable Distribution Plan

As previously noted, the Equitable Distribution Plan was repealed by the IID board on February 2018 as a result of a legal challenge that is still in the appeal process as of the date of this WSA. November 28, 2006, the IID Board of Directors adopted Resolution No 22-2006 approving development and implementation of an Equitable Distribution Plan to deal with times when customers' demand would exceed IID's Colorado River supply – scenarios such as 2 and 3, above. As part of this Resolution, the IID Board directed the General Manager to prepare the rules and regulations necessary or appropriate to implement the plan within the district, which the board adopted in November 2006. The 2009 Regulations for EDP were created to enable IID to implement a water management tool (apportionment) to address years in which water demand is expected to exceed supply. A 2006 study by Hanemann and Brookes suggested that such conditions were likely to occur 40-50% of the years during the decade following the report. So far, for the ten years from 2003 through 2012, demand has exceeded supply by some amount for a total of six years (see **Table 15,** above). IID has not experienced any overruns since 2014.

The EDP, adopted in 2007 allows the IID Board to institute an apportionment program. The 2006 Hanemann-Brookes study stated supply was likely to exceed demand "4 or 5 times out of the next 10 years".[27] In the eight years from 2004 through 2011, IID was accounted as overrunning its annual water limit four times and as noted above, as of 2013, IID had an outstand overrun balance of over 200,000 AF. As of 2019, IID did not have any outstanding overruns.

An annual EDP Apportionment will be established for each subsequent year from a favorable court decision, if not for the duration of the QSA/Transfer Agreements. The IID 2013 Revised EDP, adopted by the Board on October 28, 2013, allows IID to pay back its outstanding overruns using EDP Apportionment, and it is expected that an annual EDP Apportionment will be established for each of the next several years, if not for the duration of the QSA/Transfer Agreements. For purposes of this WSA, years with a shortage condition that impacts non-agricultural projects such as an IOPP payback obligation constitute "dry" years for IID.

For single-dry year and multiple-dry water year assessments, not only does IID's EDP govern; but when but so may provisions like sections 3.7 and 3.8 of the 2012 IWSP Water Agreement, as stated above. IOPP

[27] *Regarding the Equitable Distribution of Water in the Imperial Irrigation District* Draft Final Report, Hanemann & Brookes, 2006, <http://www.iid.com/Modules/ShowDocument.aspx?documentid=116> 8 Feb 2013

payback, EDP Apportionment, and the IWSP are further discussed under single-dry and multiple-dry year projections.

10.2 WATER MANAGEMENT UNDER INADVERTENT OVERRUN PAYBACK POLICY (IOPP)

On January 1, 2013, the water level in Lake Mead was 1120.5 feet, and for the first time since the IOPP came into effect Lower Colorado River Basin water users faced a shortage condition (**Figure 6-IOPP Schematic**). For IID, this means that outstanding overruns must be paid back to the river in calendar years 2013 and 2014 as described below and shown in **Table 16.**

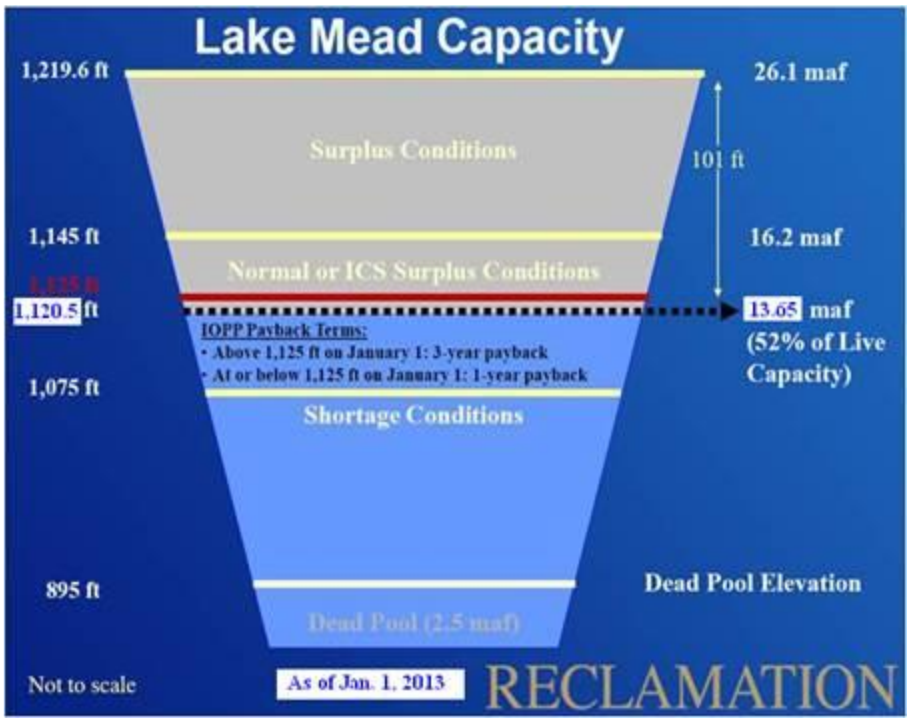


Figure 7 Lake Mead IOPP Schematic

IID's maximum allowable cumulative overrun account is 62,000 AF.[28] Thus, for IID's 2011 overrun of 82,662 AF (which was published in 2012), 62,000 AF were paid back at the river in calendar year 2013, with the remaining 20,662 AF paid back in 2014; however, due to an early payback of 6,290 AF in 2012, IID had 55,710 AF to pay back in 2013 and 20,662 AF of the 2011 overrun to pay back in 2014. In addition, because of the low level of Lake Mead on Jan 1, 2013, IID's entire 2012 overrun of 134,076 AF was paid back in

[28] For IID Quantified Amount: 3.1 MAFY *10 percent = 310,000 AF allowable cumulative overrun account amount; minimum repayment in a calendar year is the less of 310,000 * 20 percent = 62,000 or the amount in the account, if less than 62,000 AF.

2014, for a total of 154,738 AF in 2014. Furthermore, under the terms of the IOPP, no overruns are allowed in year when payback is required. IID has not experienced an overrun since 2012.

Table 16: IID Inadvertent Overrun Payback to the Colorado River under the IOPP, 2012-2019

Calendar Year of Payback	2011 Overrun Payback (AF)	2012 Overrun Payback (AF)	Payback Total for 2014 Calendar Year (AF)
2013	55,710	-	55,710
2014	20,662	134,076	154,738
Total Payback	76,372	134,076	210,448

The 2013 IOPP payback obligation and prohibition on overruns in payback years, led the IID Board to implement an apportionment program pursuant to the 2009 Regulations for EDP, which were subsequently revised and modified. The Revised 2013 EDP was version approved and adopted by the IID Board on October 28, 2013 (see Attachment B). The Revised 2013 EDP also establishes an agriculture water clearinghouse to facilitate the movement of apportioned water between agricultural water users and between farm units. This is to allow growers and IID to balance water demands for different types of crops and soils with the apportionment s that are made. IID's Water Conservation Committee agreed on a July 1, 2013 start date for the agricultural water clearinghouse

Generally, the EDP Apportionment is not expected to impact industrial use. However, given the possibility of continuing drought on the Colorado River and other stressors, provisions such as the 2012 IWSP Water Agreement sections 3.7 and 3.8 as well for dry and multiple dry year water assessment may come into effect. However, IID has agreed to work with project proponents to ensure to the extent possible that the IWSP Water Agreement terms will not negatively impact project operation.

11 PROJECT WATER AVAILABILITY FOR A 30-YEAR PERIOD TO MEET PROJECTED DEMANDS

The proposed Project will obtain drinking water from a certified State of California provider. The Applicant will be purchasing all potable drinking water from a local certified vendor approved through Imperial County Environmental Health Services. Untreated Colorado River water will be supplied to the project via the adjacent WSM underunder IID's Interim Water Supply Policy (IWSP) for non-agricultural projects or Schedule 7, General Industrial Water. Project Site and has not been farmed for the last 15 years. The Project totals to 163 Acres. Therefore by default, the proposed project would incur an increase in water usage.

The Project is proposing a General Plan Amendment and Rezone to change the land use designation and zoning for the Project site from Agriculture (A-3) to Industrial, with the Industrial zoning limited to Energy Production/Use.

As stated above the current land use for the project site is currently zoned A-3. The site does not currently receive water as shown in the historical data provided in **Table 18.** Although the site may have not used much water in the last 10 years, the site is able to receive water through the WSM Canal. The current gate (WSM Gate 6) is in operational condition, upgrades to any IID facilities will be designed and constructed by the IID Water Engineering Department.

Imperial County Entitlement Discretionary Permits Include:

- General Plan Amendment
- Zone Change
- Development Agreement
- Conditional Use Permit

As noted previously, under the terms of California legislation adopted to facilitate the QSA/Transfer Agreements and enacted in CWC Section 1013, the IID board adopted the TLCFP to address how to deal with any such temporary reduction of water use by projects like such as solar projects that are developed under a CUP.

While conserved water generated from the TLCFP is limited by law for use for water transfer or environmental purposes, by satisfying multiple district objectives the TLCFP serves to reduce the need for efficiency conservation and other water use reduction practices on the part of IID and its water users providing the district with wide benefits. One of the considerations in developing the TLCFP was to provide agricultural land owners with long-term assurances from IID that, at Project termination, irrigation service would be available for them to resume farming operations.

11.1 INTERIM WATER SUPPLY POLICY WATER

At the present time, IID is providing water for use by solar energy generation projects under Water Rate Schedule 7 General Industrial Use. If IID determines that the proposed Project should obtain water under IID's Interim Water Supply Policy (IWSP) for non-agricultural projects rather than Schedule 7 General Industrial Use, the Applicant will do so. IID will determine whether the Project should obtain water under IID's Interim Water Supply Policy (IWSP) for non-agricultural projects in addition to Schedule 7 General Industrial Water.

The IWSP, provided herein as Attachment A, designates up to 25,000 AFY of water for potential Non-Agricultural Projects within IID's water service area. As of June 2019, IID has 23,800 AF available under the IWSP for new projects such as the proposed project. The IWSP establishes a schedule for Processing Fees, Reservation Fees, and Connection Fees that change each year for all non-agricultural projects, and annual Water Supply Development fees for some non-agricultural projects. The proposed Project's water use will be subject to the annual Water Supply Development fee if IID determines that water for the Project is to be supplied under the IWSP.

The likelihood that IID will not receive its annual 3.1 MAF apportionment less QSA/Transfer Agreement obligations of Colorado River water is low due to the high priority of the IID entitlement relative to other Colorado River contractors; see IID's Water Rights section on **page 21**. If such reductions were to come into effect within the 30-year Project life, the Applicants are to work with IID to ensure any reduction can be managed.

As such, lower Colorado River water shortage does not present a material risk to the available water supply that would prevent the County from making the findings necessary to approve this WSA. IID, like any water provider, has jurisdiction to manage the water supply within its service area and impose conservation measures during a period of temporary water shortage. Furthermore, without the proposed Project, IID's task of managing water supply under the QSA/Transfer Agreements would be more difficult, because agricultural use on the proposed Project site would be significantly higher than the proposed demand for the proposed Project as explained in section Expected Water Demand for the Proposed Project that follows.

Water for construction (primarily for dust control) would be obtained from IID canals or laterals in conformance with IID rules and regulations for MCI temporary water use.[29] To obtain water delivery service, the Applicant will complete an IID-410 Certificate of Ownership and Authorization (Water Card), which allows the Water Department to provide the District with information needed to manage the District apportioned supply. Water cards are used for Agriculture, Municipal, Industrial and Service Pipe accounts.

[29] *Complete the Application for Temporary Water Use and submit to Division office. Complete encroachment permit through Real Estate – non-refundable application fee of $250, se. IID website: Real Estate / Encroachments, Permissions, and Other Permitting. Fee for temporary service water: Schedule No. 7 General Industrial Use / Temporary Service Minimum charge for up to 5 AF, pay full flat fee for 5 AF at General Industrial Use rate ($425); use more than 5 AF, pay fee for actual use at General Industrial Rate ($85/AF).*

If water is to be provided under IWSP in addition to Schedule 7, General Industrial Use, the Applicant will seek to enter into a IWSP Water Supply Agreement albeit currently fallowed land.

12 EXPECTED WATER DEMANDS FOR THE APPLICANT

Water for the Project will be needed on-site for construction, operations, and dust mitigation measures set forth by the County of Imperial. Raw Colorado River water will be supplied to the project via the adjacent canal WSM canal (Gate 6) under a water agreement with IID (Industrial Water Use Agreement, IWSP Water Supply Agreement), see Table 17. The project is anticipated to go through a Zone Change and General Plan Amendment. Please refer to Project Description. The proposed project is projected to increase the amount of water currently being used as recorded through IID Water History Logs. Project raw water uses are summarized in **in Table 17.**

Table 17: Project Water Uses (AFY)

Use	Acre-Feet Per Year
Raw Water for Construction (Years 1-10)	21.00*
Raw Water for Operations (Years 11-30)	11.20
Raw Water for Mitigation (Years 11-30)	3.07

(Construction water is Years 1-10, 210/10=21, As Average.)*

IID delivers untreated Colorado River water to the proposed Project site for agricultural uses through the following gates and laterals. The 10-year record for 2010-2019 of water delivery accounting is shown in

Table 18: Ten- Year Historic Delivery (AFY), 2010-2019

Canal/Gate	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
WSM/6	00	00	00	4.9	00	00	**00**	00	00	00
TOTAL	0	0	0	4.9	0	0	0	0	0	0

Source: *IID Staff, Nov. 18, 2019 (Jose Moreno), July, 14, 2020, (Justina Arce)*

The proposed Project has an estimated total water demand of 437.14 AF or 14.57 AFY amortized over a 30-year term (for all delivery gate for Project). Thus, the proposed Project demand is a 2,973% [30]increase from the .49 AFY from the historical 10-year average annual delivery for agricultural uses at the proposed Project site. The proposed Project's estimated water demand represents only .06 percent (.06%) of the 23,800 AYF balance of supply available for contracting under the IWSP.

[30] 2,973% % increase is not usually seen. The historic water use over 10 years average at .49 and the amortized annual increase of 14.57 AFY is the reason for the unusual increase. As the project age this number will begin to normalize to a more realistic number.

13 IID'S ABILITY TO MEET DEMANDS WITH WATER SUPPLY

Non-agricultural water demands for the IID water service area are projected for 2020-2055 in **Table 8**, and IID agricultural demands including system operation are projected for 2020-2055 in **Table 9**, all volumes within the IID water service area. IID water supplies available for consumptive use after accounting for mandatory transfers are projected to 2077 in **Table 14 (Column 11),** volumes at Imperial Dam.

To assess IID's ability to meet future water demands, IID historic and forecasted demands are compared with CRWDA Exhibit B net availability, volumes at Imperial Dam **Table 14 (Column 11**). The analysis requires accounting for system operation consumptive use within the IID water service area, from AAC at Mesa Lateral 5 to Imperial Dam, and for water pumped for use by the USBR Lower Colorado Water Supply Project (LCRWSP), an IID consumptive use component in the USBR Decree Accounting Report. IID system operation consumptive use for 2019 is provided in Table 19 to show the components included in the calculation and their 2019 volumes.

Table 19: IID System Operations Consumptive Use within IID Water Service Area and from AAC at Mesa Lateral 5 to Imperial Dam, (KAF), 2019

	Consumptive Use (KAF)
IID Delivery System Evaporation	24.6
IID Canal Seepage	91.7
IID Main Canal Spill	13.1
IID Lateral Canal Spill	118.1
IID Seepage Interception	-39.8
IID Unaccounted Canal Water	30.9
Total IID System Operational Use, within water service area	**238.6**
"Losses" from AAC @ Mesa Lat 5 to Imperial Dam	29.2
LCWSP pumpage	-10
Total System Operational Use in 2019	**257.8**

Sources: 2015 Water Balance rerun 04/22/2020, and 2016 IID Water Conservation Plan

IID's ability to meet customer water demands through 2055 as shown in **Table 20**.

- Non-agricultural use from **Table 8**
- Agricultural and Salton Sea mitigation uses from **Table 9**
- CRWDA Exhibit B net available for IID consumptive use from Table 14
- System operation consumptive use from 2015
-

Table 20: IID Historic and Forecasted Consumptive Use (CU) vs CRWDA Exhibit B IID Net Available Consumptive Use, volumes at Imperial Dam (KAFY), 2015-2055.

	2015	2020	2025	2030	2035	2040	2045	2050	2055
Non-Ag Delivery	**110.1**	123.4	133.1	142.9	151.4	163.2	175.4	188.4	199.3
Ag Delivery	**2,156.8**	2,309.6	2,259.5	2,209.5	2,209.5	2,209.5	2,209.5	2,209.5	2,209.5
QSA SS Mitigation Delivery	**153.3**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
System Op CU in IID & to Imperial Dam	**220.2**	235.6	230.5	225.4	225.4	225.4	225.4	225.4	225.4
IID CU at Imperial Dam	**2,480.9**	2,668.6	2,623.1	2,577.8	2,586.3	2,598.1	2,610.3	2,623.3	2,634.2
Exhibit B IID Net Available for CU at Imperial Dam	**2,480.9**	**2,649.8**	**2,617.8**	**2,612.8**	**2,612.8**	**2,612.8**	**2,612.8**	**2,665.8**	**2,665.8**
IID Underrun/Overrun at Imperial Dam	**90.0**	-18.80	-5.30	35.00	26.50	14.70	2.50	42.50	31.60

Notes: 2015 Provisional Water Balance rerun 06/28/2019
Non-Ag Delivery CI 15.0%, Ag Delivery CI 3.0%, QSA SS mitigation CI 15%
QSA Salton Sea Mitigation Delivery terminates on 12/31/2017
Underrun/Overrun = IID CU at Imperial Dam minus CRWDA Exhibit B Net Available
Notes: Ag Delivery for 2020-2055 does not take into account land conversion for solar use nor reduction in agricultural land area due to urban expansion.

As shown above, IID forecasted demand has the potential to exceed CRWDA Exhibit B Net Consumptive Use volumes during several time intervals through the lifespan projection for the Project. However, due to temporary land conversion throughout Imperial County for solar use and urban land expansion that will reduce agricultural acres in the future, a water savings of approximately 217,000 AFY will be generated into the future and for the lifetime of the Project.

In addition, USBR 2019 Decree Accounting Report states that IID Consumptive Use is 2,558.1 KAF (excludes 46,555 AF for water transfer associated with Salton Sea mitigation and 1,579 AF of ICS for storage in Lake Mead) with an underrun of -34.2 KAF, as reported by IID in 2019 Annual SWRCB Report per WRO 2002-2013; that is, IID uses less than the amount in its approved Water Order (2,629,675 AF).

Table 21: 2019 Approved Water Order, Actual CU (Decree Accounting Report) and IID Underrun, KAF at Imperial Dam

IID Approved Water Order	2,639.7 less 10 supplied by LCRWSP
IID Consumptive Use	2,558.1
IID **Underrun /Overrun**	**-34,215**
Sources: 2019 IID Revised Water Order, approved on March 10, 2020, *2019 Decree Accounting Report*, and *2019 Annual Report of IID Pursuant to SWRCB Revised Order WRO 2002-2013*	

As reported in the 2017-2018 IID QSA Implementation Report and 2019 SWRCB IID Report and presented in **Table 21** from 2013 to 2017 IID consumptive use (CU) resulted in underruns; i.e., annual CU was less than the district's QSA Entitlement of 3.1 MAFY minus QSA/Transfer Agreements obligations. This would indicate that even though **Table 15** shows IID Overrun/Underrun at Imperial Dam exceeding CRWDA Exhibit B Net Available for CU, for the 30-year life of the proposed Project, IID consumptive use may be less than forecasted. However, with repeal of the IID EDP in February 2018, it is uncertain whether underruns will continue.

Meanwhile, forecasted Ag Delivery reductions presented in **Table 9** are premised on implementation of on-farm practices that will result in efficiency conservation. These reductions do not take into account land conversion for solar projects nor reduction in agricultural land area due to urban expansion; that is to say, the forecasted Ag Delivery is for acreage in 2003 with reduction for projected on-farm conservation efficiency. Thus, Ag Delivery demand may well be less than forecasted in **Table 9**. In any case, the proposed Project will use less water than the historical agricultural demand of proposed Project site, so the proposed Project will ease rather than exacerbate overall IID water demands.

In the event that IID has issued water supply agreements that exhaust the 25 KAFY IWSP set aside, and it becomes apparent that IID delivery demands due to non-agriculture use are going to cause the district to exceed its quantified 3.1 MAFY entitlement less QSA/Transfer Agreements obligations, IID has identified options to meet these new non-agricultural demands. These options include (1) tracking water yield from temporary land conversion from agricultural to non-agricultural land uses (renewable solar energy); and (2) only if necessary, developing projects to expand the size of the district's water supply portfolio.

These factors will be discussed in the next two sections**, Tracking Water Savings from Growth of Non-Agricultural land Uses and Expanding Water Supply Portfolio.**

13.1.1 *Tracking Water Savings from Growth of Non-Agricultural Land Uses*

The Imperial County Board of Supervisors has targeted up to 25,000 acres of agricultural lands, about 5 percent (5%) of the farmable acreage served by IID, for temporary conversion to solar farms; because the board found that this level of reduction would not adversely affect agricultural production. As reported for IID's 2019 Temporary Land Conversion Fallowing Program existing solar developments at the end of 2019 have converted 10,146 acres of farmland. These projects had a yield at-river of 65,791 AF of water in 2019. The balance of the 25,000-acre agriculture-to-solar policy is 14,854 acres. On average, each agricultural acre converted reduces agricultural demand by 5.1 AFY, which results in a total at-river yield (reduction in consumptive use) of 127,500 AFY.

However, due to the nature of the conditional use permits under which solar farms are developed, IID cannot rely on this supply being permanently available. In fact, should a solar project decommission early, that land may go immediately back to agricultural use (it remains zoned an agricultural land). Nevertheless, during their operation, the solar farms do ameliorate pressure on IID to implement projects to meet demand from new non-agricultural projects.

Unlike the impact of solar projects, other non-agricultural uses are projected to grow, as reflected in the nearly 76 percent (76%) increase in non-agricultural water demand from 107.2 KAF in 2015 to 198.4 KAF in 2055 reflected herein in **Table 8**. This increase in demand of 91.2 KAFY will more than likely be met by solar development; however, as the land remains zoned as agricultural land, that source is not reliable to be permanently available to IID.

The amount of land developed for residential, commercial, and industrial purposes is projected to grow by 55,733 acres from 2015 to 2050[31] within the sphere of influence of the incorporated cities and specific plan areas in Imperial County. A conservative estimate is that such development will displace at least another 24,500 acres of farmland based on the Imperial Local Agency Formation Commission (LAFCO) sphere of influence maps and existing zoning and land use in Imperial County. At 5.13 AFY yield at-river, there would be a 125,000 AFY reduction IID net consumptive use.

[31] IRWMP, Chapter 5, Table 5-14.

The total foreseeable solar project temporary yield at-river (91,800 AFY) and municipal development permanent yield at-river (125,000 AFY) is to reduce forecasted IID net consumptive use at-river 216,800 AFY, which is more than enough to meet the forecast Demand minus Exhibit B Net Available volumes shown in Table 14. This Yield at-river is sufficient to meet the forecasted excess of non-agricultural use over Net Available supply within the IID service area for the next 20 years, as is required for SB 610 analysis.

Farmland retirement associated with municipal development would reduce IID agricultural delivery requirements beyond the efficiency conservation projections shown in **Table 9.** Therefore, in the event that Schedule 7 General Industrial Use water is unavailable, the Applicants will rely on IID IWSP water to supply the Project, as discussed above in the section **IID Water Supply Policy for Non-Agricultural Projects (September 2009).**

13.2 EXPANDING WATER SUPPLY PORTFOLIO

While forecasted long-term annual yield-at-river from the reduction in agricultural acreage due to municipal development in the IID service area is sufficient to meet the forecasted excess of non-agricultural use over CRWDA Net Available supply, **Table 14,** without expanding IID's Water Supply Portfolio, IID has also evaluated the feasibility of a number of capital projects to increase its water supply portfolio.

As reported in 2012 Imperial IRWMP Chapter 12, IID contracted with GEI Consultants, Inc. to identify a range of capital project alternatives that the District could implement. Qualitative and quantitative screening criteria and assumptions were developed in consultation with IID staff. Locations within the IID water service area with physical, geographical, and environmental characteristics most suited to implementing short- and long-term alternatives were identified. Technical project evaluation criteria included volumes of water that could be delivered and/or stored by each project, regulatory and permitting complexity, preliminary engineering components, land use requirements, and costs.

After preliminary evaluation, a total of 27 projects were configured:

- 17 groundwater or drain water desalination
- 2 groundwater blending
- 6 recycled water
- 1 groundwater banking
- 1 IID system conservation (concrete lining)

Projects were assessed at a reconnaissance level to allow for comparison of project costs. IID staff and the board identified key factors to categorize project alternatives and establish priorities. Lower priority projects were less feasible due to technical, political, or financial constraints. Preferential criteria were features that increased the relative benefits of a project and grant it a higher priority. Four criteria were used to prioritize the IID capital projects:

1. Financial Feasibility. Projects whose unit cost was more than $600/AF were eliminated from further consideration.
2. Annual Yield. Project alternatives generating 5,000 AF or less of total annual yield were determined not to be cost-effective and lacking necessary economies of scale.
3. Groundwater Banking. Groundwater banking to capture and store underruns is recognized as a beneficial use of Colorado River water. Project alternatives without groundwater banking were given a lower priority.
4. Partnering. Project alternatives in which IID was dependent on others (private and/or public agencies) for implementation were considered to have a lower priority in the IID review; this criterion was reserved for the IRWMP process, where partnering is a desirable attribute.

Based on these criteria, the top ten included six desalination, two groundwater blending, one system conservation, and one groundwater storage capital projects. These capital projects are listed Table 22 which follows.

Table 22: IID Capital Project Alternatives and Cost (May 2009 price levels $)

Name	Description	Capital Cost	O&M Cost	Equivalent Annual Cost	Unit Cost ($/AF)	In-Valley Yield (AF)
GW 18	Groundwater Blending E. Mesa Well Field Pumping to AAC	$39,501,517	$198,000	$2,482,000	$99	25,000
GW 19	Groundwater Blending: E. Mesa Well Field Pumping to AAC w/Percolation Ponds	$48,605,551	$243,000	$3,054,000	$122	25,000
WB 1	Coachella Valley Groundwater Storage	$92,200,000	$7,544,000	$5,736,746	$266	50,000

DES 8	E. Brawley Desalination with Well Field and Groundwater Recharge	$100,991,177	$6,166,000	$12,006,000	$480	25,000
AWC 1	IID System Conservation Projects	$56,225,000	N/A	$4,068,000	$504	8,000
DES 12	East Mesa Desalination with Well Field and Groundwater Recharge	$112,318,224	$6,336,000	$12,831,000	$513	25,000
DES 4	Keystone Desalination with IID Drainwater/ Alamo River	$147,437,743	$15,323,901	$23,849,901	$477	50,000
DES 14	So. Salton Sea Desalination with Alamo River Water and Industrial Distribution	$158,619,378	$15,491,901	$24,664,901	$493	50,000
DES 15	So. Salton Sea Desalination with Alamo River Water and MCI Distribution	$182,975,327	$15,857,901	$26,438,901	$529	50,000
DES 2	Keystone Desalination with Well Field and Groundwater Recharge	$282,399,468	$13,158,000	$29,489,000	$590	50,000

Source: Imperial IRWMP, Chapter 12; see also Imperial IRWMP Appendix N, IID Capital Projects

13.3 IID Near Term Water Supply Projections

As mentioned above, IID's quantified Priority 3(a) water right under the QSA/Transfer Agreements secures 3.1 MAF per year, less transfer obligations of water for IID's use from the Colorado River, without relying on rainfall in the IID service area. Even with this strong entitlement to water, IID actively promotes on-farm efficiency conservation and is implementing system efficiency conservation measures including seepage recovery from IID canals and the All-American Canal (ACC) and measures to reduce operational discharge. As the IID website Water Department states:

> Through the implementation of extraordinary conservation projects, the development of innovative efficiency measures and the utilization of progressive management tools, the IID Water Department is working to ensure both the long-term viability of agriculture and the continued protection of water resources within its service area.

Overall, agricultural water demand in the Imperial Valley will decrease due to IID system and grower on-farm efficiency conservation measures that are designed to maintain agricultural productivity at pre-QSA levels while producing sufficient yield-at-river to meet IID's QSA/Transfer Agreements obligations. These efficiencies combined with the conversion of some agricultural land uses to non-agricultural land uses (both solar and municipal), ensure that IID can continue to meet the water delivery demand of its existing and

future agricultural and non-agricultural water users, including this Project for the next 30 years and for the life of the proposed Project.

14 PUBLIC WATER SYSTEM/ LEAD AGENCY FINDINGS

IID serves as the regional wholesale water supplier, importing raw Colorado River water and delivering it, untreated, to agricultural, municipal, industrial, environmental, and recreational water users within its Imperial Unit water service area. The County of Imperial serves as the responsible agency with land use authority over the proposed project. Water Assessment findings are summarized as follows:

1. IID's annual entitlement to consumptive use of Colorado River water is capped at 3.1 MAF less water transfer obligations, pursuant to the QSA and Related Agreements. Under the terms of the CRWDA, IID is implementing efficiency conservation measure to reduce net consumptive use of Colorado River water needed to meet its QSA/Transfer Agreements obligations while retaining historical levels of agricultural productivity.
2. In 2019 IID consumptively used 2,588,136 AF of Colorado River water (volume at Imperial Dam); 2,315,988 AF were delivered to customers of which 2,225,089 AF or 96 percent went to agricultural users.
3. Reduction of IID's net consumptive use of Colorado River water under the terms of the Colorado River Water Delivery Agreement is to be the result of efficiency conservation measures. Agricultural consumptive use in the Imperial Valley will not decline. However, IID operational spill and tailwater will decline, impacting the Salton Sea.
4. Due to the dependability of IID's water rights, Colorado River flows, and Colorado River storage facilities for Colorado River water, it is unlikely that the water supply of IID would be disrupted, even in dry years or under shortage conditions because Mexico, Arizona and Nevada have lower priority and are responsible for reducing their water use during a declared Colorado River water shortage before impacting California.
5. Historically, IID has never been denied the right to use the annual volume of water it has available for its consumptive uses under its entitlement. Nevertheless, IID is participating in discussions for possible actions in response to extreme drought on the Colorado River.
6. The proposed Project has an estimated total water demand of 437.14 AF or 14.57 AFY amortized over a 30-year term (for the delivery gate for Project). Thus, the proposed Project demand is a

2,973% (increase) of **14.57** AFY from the historical 10-year average of **.49** percent of the historic 10-year average annual delivery for agricultural uses at the proposed Project site.

7. The Project's water use will be covered under the Schedule 7 General Industrial Use. In the event that IID determines that the proposed Project is to utilize IWSP for Non-Agricultural Projects water, the Applicant will enter into an IWSP Water Supply Agreement with IID. In which case, the proposed Project would use .06 percent (.06%) of the 23,800 AYF of IWSP water. Which would leave a remaining amount of 23,785.43 AFY.
8. Based on the Environmental Impact Report (EIR) prepared for this proposed Project pursuant to the CEQA, California Public Resources Code sections 21000, *et seq*., the Lead Agency hereby finds that the IID projected water supply will be sufficient to satisfy the demands of this proposed Project in addition to existing and planned future uses, including agricultural and non-agricultural uses for a 20-year Water Supply Assessment period and for the 30 -year proposed Project life. California State Clearing House Number: 2020040122, Westside Main Canal Battery Storage Project.

15 ASSESSMENT CONCLUSION

This Water Supply Assessment has determined that IID water supply is adequate for the proposed Project. The Imperial Irrigation District's IWSP for Non-Agricultural Projects dedicates 25,000 AF of IID's annual water supply to serve new projects. As of June 2020, 23,800 AF per year remain available for new projects ensuring reasonably sufficient supplies for new non-agricultural water users. The Project water demand of approximately 437.14 AF and 14.57 AFY amortized represents .06 % of the unallocated supply set aside in the IWSP for non-agricultural project, and approximately .06 percent (.06 %) of forecasted future non-agricultural water demands planned in the Imperial IRWMP through 2055. The water demand for the proposed Project at full build-out represents a 2,973% increase from the 10-year historic average agricultural water use for 2010-2019 at the proposed Project site.

For all the reasons described herein, the amount of water available and the stability of the IID water supply along with on-farm and system efficiency conservation and other measures being undertaken by IID and its customers ensure that the proposed Project 's water needs will be met for the next 30 years as assessed for compliance under SB-610.

16 RESOURCES AND REFERENCES

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6. Imperial Irrigation District. (2009). Interim Water Supply Policy for Non-Agricultural Projects. Imperial, CA

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8. Imperial Irrigation District Water Department. (2013). Colorado River Water Accounting and. Conservation Commitments Update. Tina Anderholt Shields, PE. Colorado River Resources Manager Imperial, CA.

9. Imperial Irrigation District. (2017). 2016 QSA Water Conservation & Transfer Agreement Annual Implementation Report, Imperial, CA

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13. United States Bureau of Reclamation Lower Colorado Region Website: Boulder Canyon Operations Office – Programs and Activities, Lower Colorado River Water Accounting, Water

Accounting Reports (1964 - 2015). Compilation of Records in Accordance with Article V of the Decree of the Supreme Court of the United States in Arizona v. California Dated March 9, 1964: Calendar Years 1964 - 2015 Boulder City, NV.

Attachments

Attachment A: IID Interim Water Supply Policy for Non-Agricultural Projects

Attachment B: Colorado Water Delivery Agreement

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17 Attachment A: IID Interim Water Supply Policy for Non-Agricultural Projects[32]

1.0 Purpose.

Imperial Irrigation District (the District) is developing an Integrated Water Resources Management Plan (IWRMP) [33] that will identify and recommend potential programs and projects to develop new water supplies and new storage, enhance the reliability of existing supplies, and provide more flexibility for District water department operations, all in order to maintain service levels within the District's existing water service area. The first phase of the IWRMP is scheduled to be completed by the end of 2009 and will identify potential projects, implementation strategies and funding sources. Pending development of the IWRMP, the District is adopting this Interim Water Supply Policy (IWSP) for Non-Agricultural Projects, as defined below, in order to address proposed projects that will rely upon a water supply from the District during the time that the IWRMP is still under development. It is anticipated that this IWSP will be modified and/or superseded to take into consideration policies and data developed by the IWRMP.

2.0 Background.

The IWRMP will enable the District to more effectively manage existing water supplies and to maximize the District's ability to store or create water when the available water supplies exceed the demand for such water. The stored water can be made available for later use when there is a higher water demand. Based upon known pending requests to the District for water supply assessments/verifications and pending applications to the County of Imperial for various Non-Agricultural Projects, the District currently estimates that up to 50,000 acre feet per year (AFY) of water could potentially be requested for Non-Agricultural Projects over the next ten to twenty years. Under the IWRMP the District shall evaluate the projected water demand of such projects and the potential means of supplying that amount of water. This IWSP currently designates up to 25,000 AFY of water for potential Non-Agricultural Projects within IID's water service area. Proposed Non-Agricultural projects may be required to pay a Reservation Fee, further described below. The reserved water shall be available for other users until such Non-Agricultural projects are implemented and require the reserved water supply. This IWSP shall remain in effect pending the approval of further policies that will be adopted in association with the IWRMP.

[32] IID Board Resolution 31-2009. Interim Water Supply Policy for New Non-Agricultural Projects. September 29, 2009. < IID Interim Water Supply Policy for Non-Agricultural Projects>

[33] The 2009 Draft IID IWRMP has been superseded by the October 2012 Imperial IRWMP, which incorporates the conditions of the IWSP by reference.

3.0 Terms and Definitions.

3.1 Agricultural Use. Uses of water for irrigation, crop production and leaching.

3.2 Connection Fee. A fee established by the District to physically connect a new Water User to the District water system.

3.3 Industrial Use. Uses of water that are not Agricultural or Municipal, as defined herein, such as manufacturing, mining, cooling water supply, energy generation, hydraulic conveyance, gravel washing, fire protection, oil well re-pressurization and industrial process water.

3.4 Municipal Use. Uses of water for commercial, institutional, community, military, or public water systems, whether in municipalities or in unincorporated areas of Imperial County.

3.5 Mixed Use. Uses of water that involve a combination of Municipal Use and Industrial Use.

3.6 Non-Agricultural Project. Any project which has a water use other than Agricultural Use, as defined herein.

3.7 Processing Fee. A fee charged by the District Water Department to reimburse the District for staff time required to process a request for water supply for a Non-Agricultural Project.

3.8 Reservation Fee. A non-refundable fee charged by the District when an application for water supply for a Non-Agricultural Project is deemed complete and approved. This fee is intended to offset the cost of setting aside the projected water supply for the project during the period commencing from the completion of the application to start-up of construction of the proposed project and/or execution of a water supply agreement. The initial payment of the Reservation Fee will reserve the projected water supply for up to two years. The Reservations Fee is renewable for up to two additional two-year periods upon payment of an additional fee for each renewal.

3.9 Water Supply Development Fee. An annual fee charged to some Non-Agricultural Projects by the District, as further described in Section 5.2 herein. Such fees shall assist in funding IWRMP or related water supply projects,

3.10 Water User. A person or entity that orders or receives water service from the District.

4.0. CEQA Compliance.

4.1 The responsibility for CEQA compliance for new development projects within the unincorporated area of the County of Imperial attaches to the County of Imperial or, if the project is within the boundaries of a municipality, the particular municipality, or if the project is subject to the jurisdiction of another agency, such as the California Energy Commission, the particular agency. The District will coordinate with the

County of Imperial, relevant municipality, or other agency to help ensure that the water supply component of their respective general plans is comprehensive and based upon current information. Among other things, the general plans should assess the direct, indirect and cumulative potential impacts on the environment of using currently available water supplies for new industrial, municipal, commercial and/or institutional uses instead of the historical use of that water for agriculture. Such a change in land use, and the associated water use, could potentially impact land uses, various aquatic and terrestrial species, water quality, air quality and the conditions of drains, rivers and the Salton Sea.

4.2 When determining whether to approve a water supply agreement for any Non-Agricultural Project pursuant to this IWSP, the District will consider whether potential environmental and water supply impacts of such proposed projects have been adequately assessed, appropriate mitigation has been developed and appropriate conditions have been adopted by the relevant land use permitting/approving agencies, before the District approves any water supply agreement for such project.

5.0. Applicability of Fees for Non-Agricultural Projects.[34]

5.1 Pursuant to this Interim Water Supply Policy, applicants for water supply for a Non-Agricultural Project shall be required to pay a Processing Fee and may be required to pay a Reservation Fee as shown in Table A. All Water Users shall also pay the applicable Connection Fee, if necessary, and regular water service fees according to the District water rate schedules, as modified from time to time.

5.2 A Non-Agricultural Project may also be subject to an annual Water Supply Development Fee, depending upon the nature, complexity, and water demands of the proposed project. The District will determine whether a proposed Non-Agricultural Project is subject to the Water Supply Development Fee for water supplied pursuant to this IWSP as follows:

5.2.1. A proposed project that will require water for a Municipal Use shall be subject to an annual Water Supply Development Fee as set forth in Table B if the projected water demand for the project is in excess of the project's estimated population multiplied by the District-wide per capita usage. Municipal Use projects without an appreciable residential component will be analyzed under sub-section 5.2.3.

5.2.2. A proposed project that will require water for an Industrial Use located in an unincorporated area of the County of Imperial shall be subject to an annual Water Supply Development Fee as set forth in Table B.

5.2.3. The applicability of the Water Supply Development Fee set forth in Table B to Mixed Use projects, Industrial Use projects located within a municipality, or Municipal Use projects without an appreciable residential component, will be determined by the District on a case-by-case basis, depending upon the proportion of types of land uses and the water demand proposed for the project.

[34] The most recent fee schedules can be found in a link at IID/Water/ Municipal, Industrial and Commercial Customers; or visit by URL at Imperial Irrigation District : Water Rate Schedules

5.3. A proposed Water User for a Non-Agricultural Projects may elect to provide some or all of the required water supply by paying for and implementing some other means of providing water in a manner approved by the District, such as conservation projects, water storage projects and/or use of an alternative source of supply, such as recycled water or some source of water other than from the District water supply. Such election shall require consultation with the District regarding the details of such alternatives and a determination by the District, in its reasonable discretion, concerning how much credit, if any, should be given for such alternative water supply as against the project's water demand for purposes of determining the annual Water Supply Development Fee for such project.

5.4 The District Board shall have the right to modify the fees shown on Tables A and B from time to time.

6. Water Supply Development Fees collected by the District under this IWSP shall be accounted for independently, including reasonable accrued interest, and such fees shall only be used to help fund IWRMP or related District water supply projects.

7. Any request for water service for a proposed Non-Agricultural Project that meets the criteria for a water supply assessment pursuant to Water Code Sections 10910-10915 or a water supply verification pursuant to Government Code Section 66473.7 shall include all information required by Water Code Sections 10910 –10915 or Government Code Section 66473.7 to enable the District to prepare the water supply assessment or verification. All submittals should include sufficient detail and analysis regarding the project's water demands, including types of land use and per capita water usage, necessary to make the determinations outlined in Section 5.2.

8. Any request for water service for a proposed Non-Agricultural Project that does not meet the criteria for a water supply assessment pursuant to Water Code Section 10910-10915 or water supply verification pursuant to Government Code Section 66473.7 shall include a complete project description with a detailed map or diagram depicting the footprint of the proposed project, the size of the footprint, projected water demand at full implementation of the project and a schedule for implementing water service. All submittals should include sufficient detail and analysis regarding the project's water demands, including types of land use and per capita water usage, necessary to make the determinations outlined in Section 5.2.

9. All other District rules and policies regarding a project applicant or Water User's responsibility for paying connection fees, costs of capital improvements and reimbursing the District for costs of staff and consultant's time, engineering studies and administrative overhead required to process and implement projects remain in effect.

10. Municipal Use customers shall be required to follow appropriate water use efficiency best management practices (BMPs), including, but not limited to those established by the California Urban Water Conservation Council BMP's (see http://www.cuwcc.org/mou/exhibit-1-bmp-definitions-schedules-

requirements.aspx), or other water use efficiency standards, adopted by the District or local government agencies.

11. Industrial Use customers shall be required to follow appropriate water use efficiency BMP's, including but not limited to those established by the California Urban Water Conservation Council and California Energy Commission, as well as other water use efficiency standards, adopted by the District or local government agencies.

12. The District may prescribe additional or different BMPs for certain categories of Municipal and Industrial Water Users.