APPENDIX L
WATER SUPPLY ASSESSMENT

DREW SOLAR

WATER SUPPLY ASSESSMENT

COUNTY OF IMPERIAL, CALIFORNIA

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Appendices

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

Acronyms

AF	Acre-Foot or Acre-Feet
AFY	Acre-Feet per Year
AOP	Annual Operations Plan
CAP	Central Arizona Project
CDCR	California Department of Corrections and Rehabilitation
CDPH	California Department of Public Health
CDWR	California Department of Water Resources
CEQA	California Environmental Quality Act
CRWDA	Colorado River Water Delivery Agreement
CUP	Conditional Use Permit
CVWD	Coachella Valley Water District
EDP	IID Equitable Distribution Plan
EIS	Environmental Impact Statement
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
KAF	Thousand Acre Feet
LAFCO	Local Agency Formation Commission
LCR	Lower Colorado Region
MCI	Municipal, commercial, industrial
MGD	Million Gallons per Day
MW	Megawatt
MWD	Metropolitan Water District of Southern California
NAF	Naval Air Facility
PVID	Palo Verde Irrigation District
QSA/Transfer Agreements	Quantification Settlement Agreement and Related Agreements
SB	Senate Bill
SDCWA	San Diego County Water Authority
SNWA	Southern Nevada Water Authority
TLCFP	Temporary Land Conversion Fallowing Policy
USBR	United States Bureau of Reclamation
USEPA	United States Environmental Protection Agency
WSA	Water Supply Assessment

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Purpose of Water Supply Assessment

This Water Supply Assessment (WSA) was prepared for the Imperial County Planning and Development Services (ICPDS) and Drew Solar, LLC (Applicant) by water supply experts at Fuscoe Engineering, Inc. ("Fuscoe"), as the consultant, regarding Drew Solar project ("Project" or "Drew Solar"). This study is a requirement of California law, specifically Senate Bill 610 (referred to as SB 610). For a "project" (as defined in Water Code § 10912) that is subject to CEQA, SB 610 requires a lead agency to identify any public water system that may supply water to the project and to request the project proponent to prepare a specified water supply assessment.

This study has been prepared pursuant to the requirements of section 10910 of the California Water Code (Water Code), 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. SB 610 requires the lead agency (ICPDS) to identify any public water system or water purveyor that may supply water for the project, and to prepare a WSA based on this information. 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.

Under SB 610, water supply assessments must be furnished to local governments for inclusion in any environmental documentation for certain projects (as defined in Water Code section 10912 [a]) that are subject to the California Environmental Quality Act (CEQA). Due to increased water demands statewide, SB 610 seeks to improve the link between information on water availability and certain land use decisions made by cities and counties in an effort toward managing the demand placed on California's water supply. It provides further regulations and incentives to preserve and protect future water needs. Ultimately the lead agency will determine whether water supplies will be sufficient to satisfy the demands of the Project, in addition to existing and planned future uses.

Drew Solar qualifies as a "project" under Water Code section 10912 because it is a proposed industrial use occupying more than forty (40) acres of land. Water Code section 10911(c) requires for the Project that the County "shall determine, based on the entire record, whether project 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 "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 existing and planned future uses, including agricultural and manufacturing uses."

Executive Summary

Imperial County Planning and Development Services (ICPDS), the lead agency, has requested a WSA as part of the project and environmental review for the Drew Solar Project ("Project" or "Drew Solar"). This study is intended for use by ICPDS 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 41-year projection to meet existing demands
- Expected water demands of the project
- Reasonable foreseeable planned future water demands to be served by the Imperial Irrigation District

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

The IWSP sets aside 25,000 acre-feet (AF) of IID's Colorado River water supply to serve new non-agricultural projects. To date, a balance of 23,800 AF remains available under the IWSP for new non-agricultural projects ensuring reasonably sufficient supplies for such water users. The operational Project water demand of approximately 116 AFY represents 0.5 % of the unallocated supply set aside for nonagricultural projects, which would not affect IID's ability to provide water to other users in IID's service area.

Project Description

Project Location

The Drew Solar project (Project) is a proposed solar photovoltaic (PV) energy-generating and utility scale energy storage facility located in Imperial County, California, approximately 6.5 miles southwest of the city of El Centro, California and 7.5 miles directly west of Calexico, California (see Figure 1). The geographic center of the Project roughly corresponds with 32° 41′ 13″ North and 115° 40′ 8″ West, at an elevation of 19 feet below sea level. The U.S./Mexico border is approximately 1.85 miles south of the Project area. The Project is located on agricultural land owned by Imperial Irrigation District (IID).

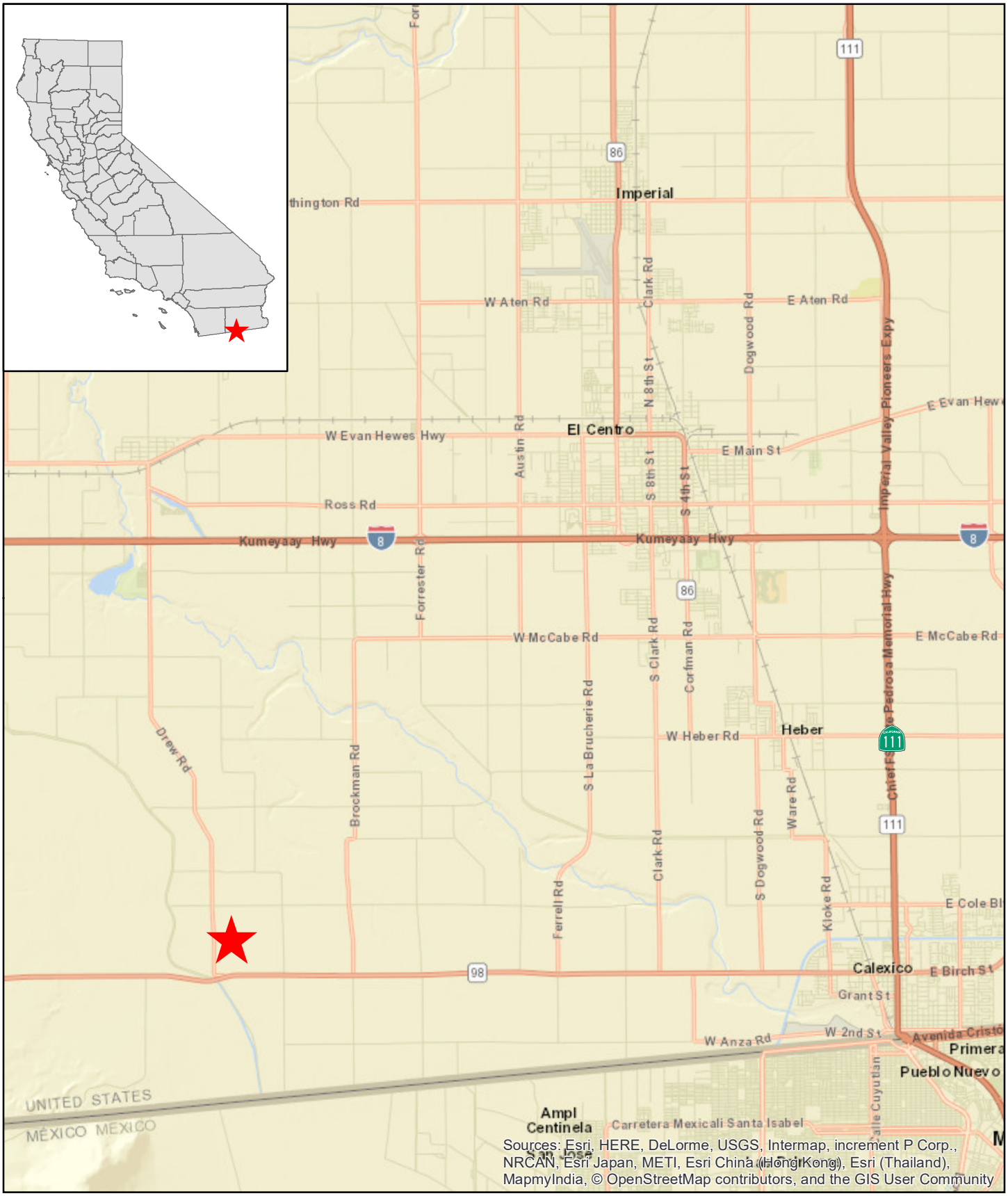
More specifically, the Project is located south of Kubler Road, west of Pulliam Road, east of Mandrapa Road, and north of State Highway 98 in southwestern unincorporated Imperial County (see Figure 2). Project site parcels include a total of approximately 855 gross acres and 762.8 net farmable acres of lands that are currently zoned as General Agriculture (A-2), Agricultural-Heavy (A-3) or General Agricultural Rural Zone (A-2R). See Table 1 for a summary of the water delivery canals serving the Project area. Historical water deliveries to the Project site for agricultural use averaged approximately 4,618 AFY between 2003 and 2017.[1]

Table 1 - Drew Solar Land and Water Delivery Data

APN	Gross Acreage	Net Acreage	Water Delivery Canal/Gate
052-170-039	91.73	69.8	Wormwood 14
052-170-067	72.04	67.2	Wormwood 13
052-170-031	168.61	157.1	Woodbine 57 and Wormwood 12
052-170-056	178.07	152.2	Wormwood 11 and 11a
052-170-032	176.24	158.6	Woodbine 43a and Woodbine 44
052-170-037	168.31	157.9	Woodbine 41 and 42
Total	855	762.8	

The developer/project proponent, Drew Solar, LLC, has filed an application for six (6) conditional use permits (CUPs) to enable the development of the proposed Project. The lifetime of the Project based on the Development Agreement is a maximum of 40 years which includes construction and operation of the Project. Decommissioning must happen immediately after the 40-year term.

[1] Historical water delivery data to Project site was provided by IID in February 2018.



Drew Solar Vicinity Map

Figure 1

Imperial County

2/20/2018

FUSCOE ENGINEERING
full circle thinking

★ Drew Solar Location

0 2 4 Miles

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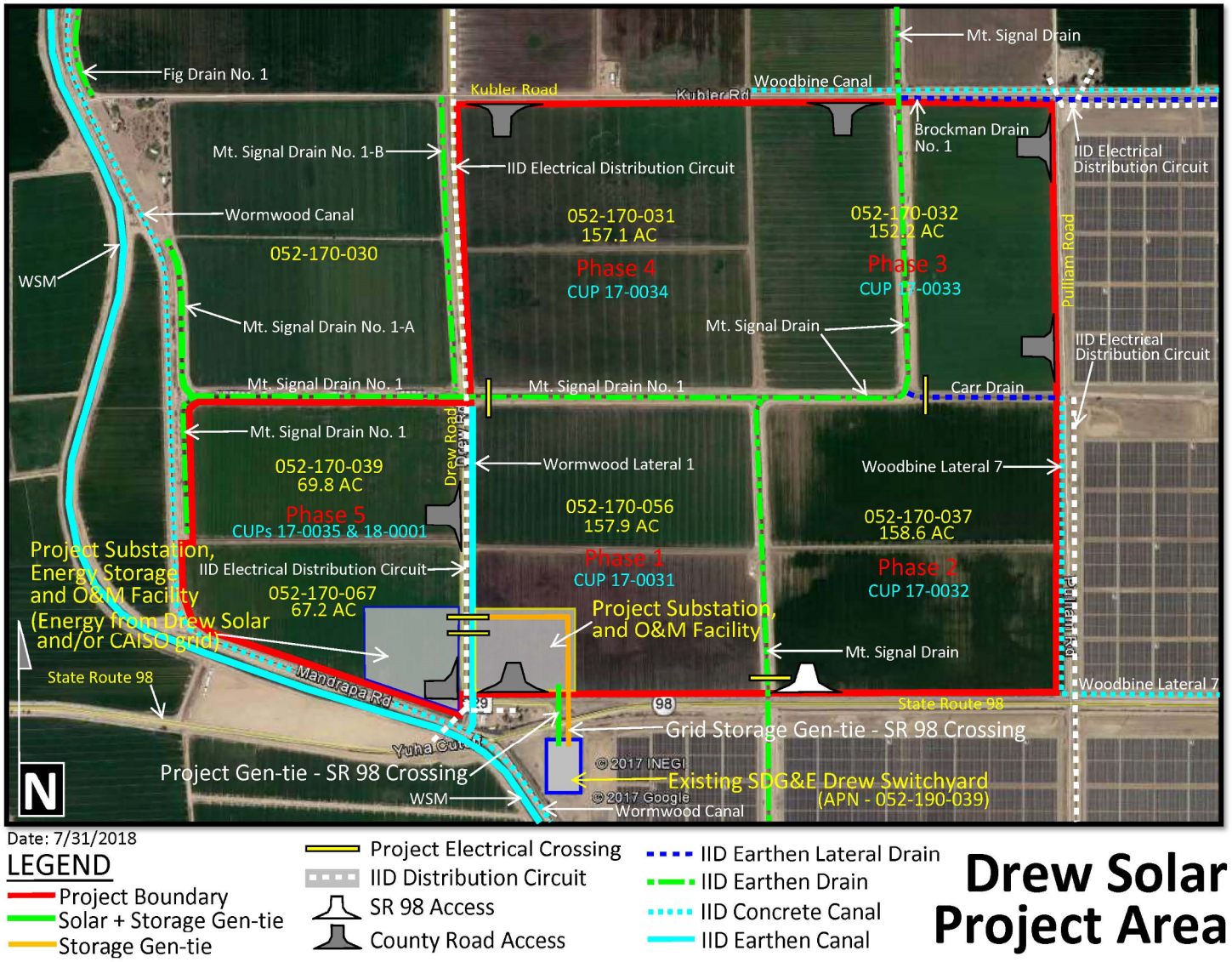
Figure 2 – Project Location



Date: 7/31/2018

LEGEND

- Project Boundary
- Solar + Storage Gen-tie
- Storage Gen-tie
- Project Electrical Crossing
- IID Distribution Circuit
- SR 98 Access
- County Road Access
- IID Earthen Lateral Drain
- IID Earthen Drain
- IID Concrete Canal
- IID Earthen Canal

Drew Solar Project Area

The Project site was carefully chosen to avoid and minimize impacts to the environment. Key considerations in the Project site selection were the following:

- The site ranks among the highest in solar resource potential in the nation.
- The Project minimizes the potential impact to the environment by:
    - Locating the Project on disturbed land.
    - Maximizing the use of existing infrastructure (substation, roads, and water sources).
    - Minimizing the potential impacts to wildlife by avoiding to the extent practical sensitive habitats and designated resources, reserves and protected areas.
- The Project reduces the emission of GHGs from the generation of electricity by producing and using renewable energy.
- The site is located near and adjacent to previously approved solar projects.
- Generation Interconnection Transmission line is short and avoids impacts to Bureau of Land Management land.
- The Project provides economic benefits and jobs to Imperial County.
- Lease revenue of more than $30 million is anticipated over the Project life.
- Solar Fallowing allows IID to meet its water conservation goals/requirements.
- This Project reinforces Imperial County's position as a leader in the renewable energy world.
- The Project creates minimal impacts to traffic -- once the facility is constructed, the maintenance is minimal, and therefore there will be minimal traffic around the site.
- The photovoltaic panels do not produce noise or emit any air pollution.
- Construction and reclamation will each require minimal water (~1,200 AF total).
- Dust control and panel washing during operation require minimal water (~60 AFY).
- The combination of construction, operational and decommissioning water demands are amortized below, which results in an average Project water demand of 116 AFY over the lifetime of the Project.
- Energy Storage enables better energy balancing and great grid reliability.
- Energy Storage will likely reduce blackouts.
- Energy Storage helps levelize the cost of energy.
  Energy Storage maximizes Californian's investments in transmission infrastructure.

The Project will use PV technology to convert sunlight directly into direct current (DC) electricity. The process starts with photovoltaic cells that make up photovoltaic modules (environmentally sealed collections of photovoltaic cells). PV modules are generally non-reflective. Groups of photovoltaic modules are wired together to form a PV array. The DC produced by the array is collected at inverters (power conversion devices) where the DC is converted to alternating current (AC). The voltage of the electricity is increased by a transformer at each power conversion station to a medium voltage level (typically 34.5 kilovolts (kV)). Medium voltage electric lines (underground and/or overhead) are used to collect the electricity from each medium voltage transformer and transmit it to the facility substation, where the voltage is further increased by a high voltage transformer to match the electric grid for export to the point of interconnection at the Drew Road Switchyard. Disconnect switches, fuses, circuit breakers, and other miscellaneous equipment will be installed throughout the system for electrical protection and operations and maintenance purposes.

The Project may include only one PV technology or a combination of various PV technologies, including but not limited to crystalline silicon-based systems, thin-film systems, perovskites, and concentrating PV systems.

Additional Project Features

The Project will also host utility scale energy storage system(s) that will enable the storage facility to utilize energy from the grid or the solar field. At full build-out, most of the Project site will be disturbed by construction of the Project. Temporary construction lay down, construction trailers, and parking areas will be provided within the Project site. Due to the size of the Project site, the solar field lay down areas may be relocated periodically within the solar field acreage as the project is built out in phases.

In addition to the structures associated with the solar field and energy storage, each of the 6 CUPs of the Project may include an Operations and Maintenance (O&M) building or buildings. The Project may also include additional auxiliary facilities such as raw water/fire water storage, treated water storage, evaporation ponds, storm water retention basins, water filtration buildings and equipment, and equipment control buildings, septic system(s) and parking. The design and construction of the buildings, solar arrays (panels, etc.), energy storage facilities, and auxiliary facilities will be consistent with County building standards.

The Project will include electric and vehicular crossings of State facilities, IID facilities and County facilities. Due to the nature of the Project and the rapidly changing technology, the exact locations of the crossings are not known at this time. However, it should be assumed for CEQA analysis purposes that wherever an IID facility (drain, irrigation canal, electric line, etc.) or County or State facility (road, etc.) intersect the Project, an electric or vehicular access crossing will occur. The Project crossings will not interfere with the purpose of these Agencies' facilities. For instance, where an IID owned and operated drain or canal flows, the Project crossing will maintain drain function.

Project Phasing

The proposed Project consists of a solar PV generating facility approximately 100 megawatts alternating current (MW) in size. The ultimate energy output is dependent on several variables, including offtake arrangements and the evolving efficiency of PV panels, so it is possible that the Project could generate more or less than 100 MW. The Project may be constructed at one time over approximately 18 months, or it may be built out over an approximately ten year period.

The phased project would allow utilities greater flexibility in obtaining renewable energy to meet ratepayer needs. The Project Proponent is requesting that a Conditional Use Permit (CUP) be issued for each of the 5 phases of the Project plus a 2nd CUP for the 5th phase. The construction equipment, materials, and labor involved in building the Project remain similar whether the project is constructed in phases over time or built out over an 18 month period. The 18 month buildout of the entire Project at once results in greater intensity of labor and equipment during the construction period. Each phase of the project may have its own offtaker and operate independently from the other phases. The phases shown on the phasing plan are conceptual and may change. The phases may be aggregated during construction and operations/maintenance so that multiple phases could be built at one time. All phases are anticipated to utilize proposed gentie lines that run from the south end of the Project site across Drew Road and State Route 98 into the existing Drew Switchyard located on APN 052-

190-039. The phases are anticipated to use the main Project switchyard; however, each phase may independently construct its own up to 230kv step-up transformer and switchyard. A list of the conceptual phases along with the APNs and approximate acreage is provided below.

Table 2 Project Phasing

Phase 1	
APN 052-170-056	157.9 net acres
Phase 2	
APN 052-170-037	158.6 net acres
Phase 3	
APN 052-170-032	152.2 net acres
Phase 4	
APN 052-170-031	157.1 net acres
Phase 5	
APN 052-170-039	69.8 net acres
APN 052-170-067	67.2 net acres
Total Phase 5	137.0 net acres

Additional Project details can be found in the Project Description document associated with the Drew Solar Project.

Description of IID Service Area

The Project site is located in Imperial County in the southeastern corner of California. The County is comprised of approximately 4,597 square miles or 2,942,080 acres[2], 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 (Mexico) to the south (International Border). Approximately fifty percent (50%) of Imperial County is undeveloped land under federal ownership and jurisdiction. The Salton Sea accounts for approximately eleven percent (11%) of Imperial County's surface area. In 2015, fifteen percent (15%) of the area was in irrigated agriculture (446,796 acres), including 14,676 acres of the Yuma project, some 35 sections or 5,600 acres served by Palo Verde Irrigation District (PVID), and 426,530 acres served by IID.[3,4]

The area served by IID is located in Imperial Valley, which is generally geographically synonymous with IID's Imperial Unit, lying south of the Salton Sea, north of the United States /Mexico International Border and generally in the 658,942 acre area between IID's Westside Main and East Highline canals.[5] In 2015, IID delivered untreated water to 426,530 net irrigated acres, predominantly in the Imperial Valley along with small areas of East and West Mesa land. The developed area consists of seven (7) incorporated cities (Brawley, Calexico, Calipatria, El Centro, Holtville, Imperial and Westmorland), three (3) unincorporated communities (Heber, Niland, Seeley), and three (3) institutions (Naval Air Facility [NAF] El Centro, Calipatria California Department of Corrections and Rehabilitation [CDCR], and Centinela CDCR) and supporting facilities. Figure 3 provides a map of the IID Imperial Unit boundary, as well as cities, communities and main canals.

Imperial Valley has a subtropical desert climate characterized by hot, dry summers and mild winters. Summer temperatures typically exceed 100 degrees Fahrenheit (°F), while winter low temperatures rarely drop below 32°F. The remainder of the year has a relatively mild climate with temperatures averaging in the mid-70s. For the nineteen (19) years from 1995-2014, average annual air temperature was 72.9°F, and average annual rainfall period was 2.67 inches (Table 3 and Table 4). The majority of rainfall occurs from November through March, along with periodic summer thunderstorms.

IID is located in the Northern Sonoran Desert, which has a subtropical desert climate with hot, dry summers and mostly mild winters. The 100-year average rainfall is 3 inches per year, most of which occurs from November through March. However, summer storms can be significant in some years. Clear and sunny conditions typically prevail, and frost is rare. The region receives 85 to 90 percent of possible sunshine each year, the highest value in the United States. Winter temperatures are mild, but summer temperatures are very hot, with more than 100 days over 100°F each year.[6] Rainfall in the Imperial Valley contributes around 50,000 AF of effective agricultural water per inch of rain.

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[2] *Imperial County General Plan*, Land Use Element 2008 Update.
[3] USBR website: Yuma Project. 7 June 2017.
[4] PVID website: About Us, Acreage Map. 7 June 2017.
[5] IID Annual Inventory of Areas Receiving Water Years 2016, 2015, 2014
[6] CDWR, CWP Update 2013, Volume 2, Colorado River Hydrologic Region, pp CR32-CR33, modified by IID 2014 record.

Table 3 Climate Characteristics, Imperial, CA 100-Year Record, 1915-2014

Climate Characteristic	Annual Value
Average Precipitation (100-year record, 1915-2014)	3.00 inches (In)
Minimum Temperature, Jan 1937	16 °F
Maximum Temperature, July 1995	121 °F
Average Minimum Temperature, 1915-2014	47.8 °F
Average Maximum Temperature, 1915-2014	98.2 °F
Average Temperature, 1915-2014	72.8 °F

Table 4 IID Areawide Annual Precipitation (IN), 1990-2014

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**			
2.261	2.752	2.772	1.103			

Computation based on polygon average of CIMIS and IID data as they came online in the WIS.[7]
Source: IID WIS

Notable from Table 4 (above) and Table 5 (below) is that while average annual rainfall measured at IID Headquarters in Imperial, CA, has been decreasing, monthly average temperatures are remarkably consistent.

[7] From 1/1/1990-3/23/2004, 3 CIMIS stations: Seeley, Calipatria/Mulberry, Meloland. From 3/24/2004-7/5/2009, 4 CIMIS stations: added Westmorland North. From 7/6/2009-12/1/2009, 3 CIMIS stations: Westmorland North offline. From 12/2/2009-2/31/2009, 4 CIMIS stations, Westmorland North back online. From 1/1/2010-9/20/2010, 4 CIMIS & 4 IID stations; and from 9/21/2010-present 4 CIMIS & 3 IID stations: Calexico station was decommissioned, last data is for 09/20/2010.

Table 5 Monthly Mean Temperature (°F) – Imperial, CA, 10-Year, 30-Year & 100-Year (2005-2014, 1995-2014, 1915-2014)

	Jan			Feb			Mar			Apr		
	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg
10-year	81	31	56	84	36	59	94	40	66	99	45	71
30-year	80	33	56	84	36	60	92	41	65	100	47	71
100-year	80	31	55	84	35	59	91	40	64	98	45	71
	May			Jun			Jul			Aug		
	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg
10-year	107	54	79	113	60	86	115	68	92	114	67	91
30-year	105	54	79	112	60	86	114	68	92	113	69	92
100-year	105	52	78	112	59	86	114	68	92	113	67	91
	Sep			Oct			Nov			Dec		
	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg
10-year	107	54	79	84	36	59	94	40	66	99	45	71
30-year	105	54	79	84	36	60	92	41	65	100	47	71
100-year	105	52	78	84	35	59	91	40	64	98	45	71

Source: IID Imperial Headquarters Station Record (Data provided by IID staff).

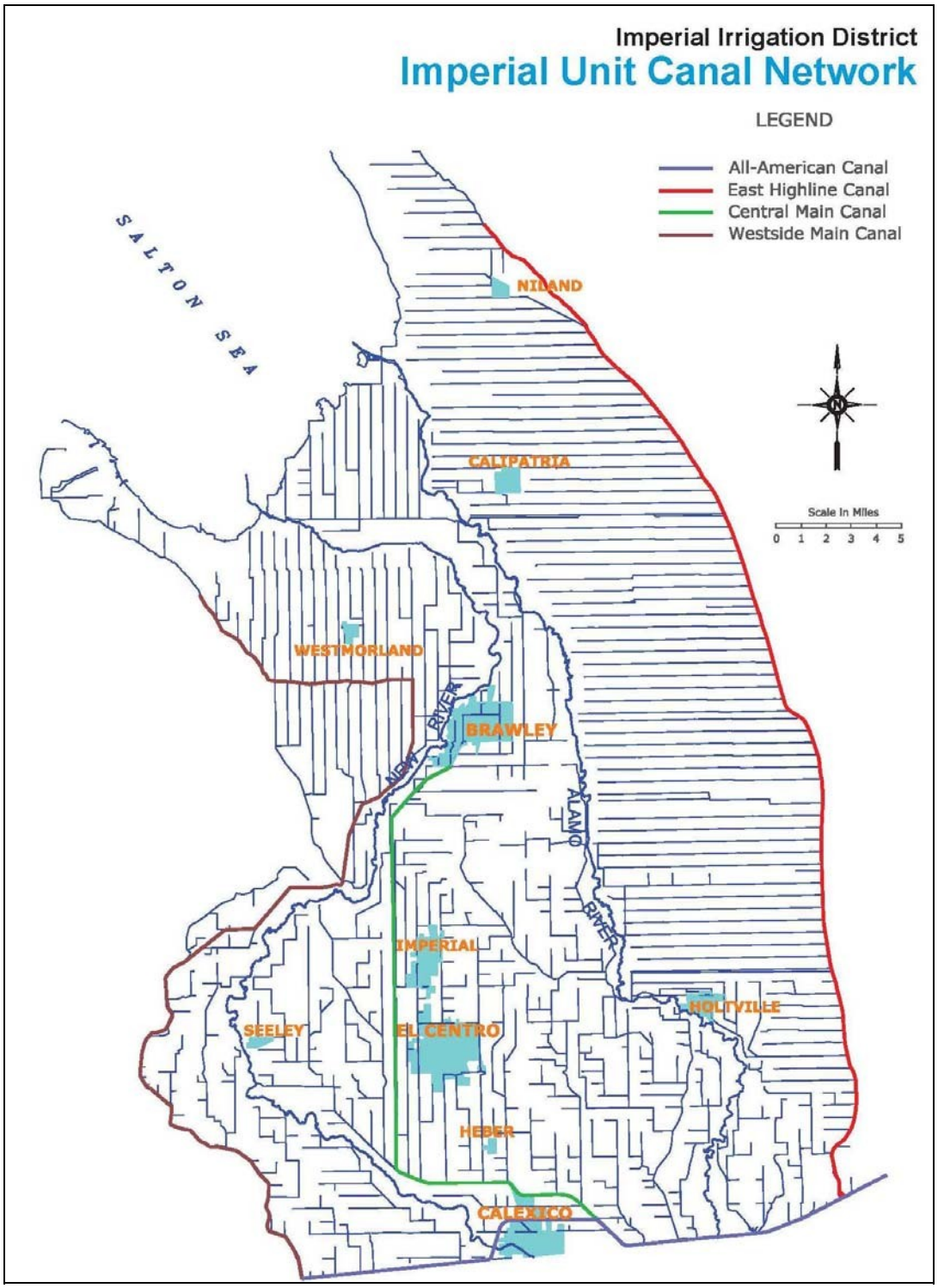
Table 6 - Monthly Mean Rainfall (In) – Imperial, CA 10-Year, 30-Year & 100-Year (2005-2014, 1995-2014, 1915-2014)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
10-yr	0.47	0.36	0.15	0.03	0.00	0.00	0.21	0.38	0.17	0.21	0.24	0.34	2.54
30-yr	0.44	0.44	0.26	0.06	0.04	0.00	0.13	0.23	0.26	0.30	0.23	0.34	2.67
100-yr	0.42	0.38	0.26	0.11	0.02	0.00	0.12	0.35	0.37	0.26	0.21	0.50	3.00

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

The 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 Southern California Water Company (which serves Calipatria, Niland, and Calipatria CDCR) 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. The IID Water Department tracks nearly 4,000 raw water service accounts required by the California Department of Public Health (CDPH) to have alternate drinking water service. The District maintains a small-acreage pipe and drinking water database, and provides an annual compliance update to CDPH.

Figure 3 - IID Imperial Unit Boundary and Canal Network



Imperial County Past and Future Land and Water Uses

Agricultural development in the Imperial Valley began at the turn of the twentieth century. In 2015, gross agricultural production for Imperial County was valued at $1,925,134,000, of which approximately $1,822,354,000 was produced in the IID water service area.[8] 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.

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 forty (40) years, urbanization is expected to replace some agricultural land uses to provide space for an increase in residential, commercial, municipal and industrial uses. The transition from agricultural land use typically results in a minor net decrease in water demand for municipal and commercial development, a considerable net decrease in water demand for 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.[9] Alternative energy facilities, like the proposed Project, 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 as described in detail below:

- Imperial Integrated Regional Water Management Plan adopted by the board on December 18, 2012, and by the County, the City of Imperial, to meet the basic requirement of CDWR for an IRWM plan. 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 much anticipated renewable energy projects until the board selects and implements capital development projects such as those explored in the Imperial IRWMP.

- 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.

In addition, water users within the IID service area are subject to the statewide requirement

[8] 2015 Imperial County Agricultural Crop & Livestock Report. September 27, 2016.
[9] *Imperial County General Plan*, Geothermal/Alternative and Transmission Element, revised 2006 and 2015.

of reasonable and beneficial use of water under the California Constitution, Article X, section 2.

Imperial Integrated Regional Water Management Plan (October 2012)

The Imperial 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 October 2012 Imperial IRWMP, and the City of Imperial City Council and the IID Board approved it in December 2012. Approval by these three (3) entities meets the basic requirement of CDWR for an IRWMP. Through the IRWMP process, IID presented 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[10]. As discussed herein, long term water supply augmentation is not anticipated to be necessary to meet Project demands.

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

Imperial Valley forecasted future non-agricultural water demands that include municipal, geothermal, industrial, feedlots/dairies and environmental resources, are provided in Table 6 in five-year increments for 2015 through 2060. Total water demand for non-agricultural uses is forecasted to be 211.7 KAF in the year 2060. This is a forecasted increase in the use of non-agricultural water from 103.9 KAF for the period of 2015 to 2060. These values were modified from Chapter 5 of the 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 were extended to 2060 based on the average incremental increase from 2018-2048 (depending on expected time of completion) to be consistent with the life of the Drew Solar Project

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

Table 7 Non-Agricultural Water Delivery Demand within IID Water Service Area, 2015-2055 (KAFY)

	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
Municipal	33.1	35.1	38.1	41.1	42.9	47.9	53.4	59.7	63.8	67.9
Industrial	23.2	33.3	40.0	46.8	53.5	60.3	67.0	73.7	80.5	87.2
Other	5.8	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
Feedlots/Dairies	18.1	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Envr Resources	8.2	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Recreational	7.4	7.0	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	12.0
Total Non-Ag Demand	**107.8**	**125.0**	**134.7**	**144.5**	**153.0**	**164.7**	**177.0**	**190.0**	**200.9**	**211.7**

Notes:
2015 Water Balance rerun 03/21/2017
2015 non-agricultural water demands are from IID 2015 Provisional Water Balance, 2020-2060 demands modified from Imperial IRWMP Chapter 5 based on 2015 Water Balance analysis with assistance from IID staff.
Industrial Demand includes geothermal, but not solar, energy production.

Agricultural evapotranspiration (ET) water demand remains around 1.5 million AFY (MAFY) from 2015 to 2060 as shown by Table 8. When accounting for tailwater and tilewater to the Salton Sea, total agricultural water demand and deliveries range from 2.16 MAFY in 2015 to 2.21 MAFY in 2060.

Table 8 - Agricultural Water Use Demand within IID Water Service Area, 2015-2060(KAFY)

	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
Ag ET from Delivered & Stored Soil Water	1,476.7	1,567.5	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	278.7	318.0	268.0	218.0	218.0	218.0	218.0	218.0	218.0	218.0
Ag Tilewater to Salton Sea	401.3	423.0	423.0	423.0	423.0	423.0	423.0	423.0	423.0	423.0
Total Agricultural Demand	**2,156.7**	**2,308.5**	**2,258.5**	**2,208.5**	**2,208.5**	**2,208.5**	**2,208.5**	**2,208.5**	**2,208.5**	**2,208.5**

Note:
2015 Water Balance rerun 03/21/2017
2015 record from IID 2015 Provisional Water Balance; projections for 2020-2060 from spreadsheet used to develop Figure 19, et seq. in Imperial IRWMP Chapter (Data provided by IID staff).

In addition to agricultural and non-agricultural water demands, system operation demand must be included to account for operational discharge, main and lateral canal seepage; and for AAC seepage, 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 9.

Table 9 - System Operation Demand, 2015-2060 (KAFY)

	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
System Operation Total	343.9	436.0	411.0	407.0	407.0	407.0	407.0	407.0	407.0	407.0
Source: IID Water Balance (Data provided by IID staff). AAC Seepage, Evap & Phreat ET are estimates based on 2015 data.										

IID Interim Water Supply Policy for Non-Agricultural Projects[11] (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 acre-feet per year of IID's annual Colorado River water supply for new 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.

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 2016 fee schedule is shown in Table 10. . 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.

Table 10 - IWSP 2017. Interim Water Supply Policy 2017 Annual Non-Agricultural Water Supply Development Fee Schedule

Annual Demand (AF)	Reservation Fee ($/AF)*	Development Fee ($/AF)*
0-500	$69.92	$279.68
501-1000	$97.45	$393.79
1001-2500	$123.62	$494.47
2501-5000	$152.71	$610.82

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

In addition to IWSP fees, IID customers with new projects will also be charged the appropriate water rate based on measured deliveries, see IID Water Rate Schedules. As of October 2016, IID has issued one Water Supply Agreement for 1,200 acre-feet per year, leaving a balance of 23,800 acre-feet per year of supply available for contracting under the IWSP.

IID Temporary Land Conversion Fallowing Policy[12] (May 2012)

Imperial County planning officials determined that renewable energy facilities were consistent with the County's agricultural zoning designation and began issuing conditional use permits for these projects with 10 to 20 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 necessary for new project approvals. Agricultural land owners also sought long-term assurances from IID that, at project termination, irrigation service would be available for them to resume their farming operations.

[11] IID website and IWSP are the sources of the text for this section.
<http://www.iid.com/water/municipal-industrial-and-commercial-customers>

[12] IID website: Temporary Land Conversion Fallowing Policy (TLCFP) and TLCFP are the sources of the text for this section.

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. 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 activities and longer-term water service for facility operation and maintenance or for treating to potable water standards. Conserved water will be created to the extent that water use for the project is less than historical water use for the project footprint as determined by the 10-year water use history.[13]

Water demands for certain non-agricultural projects are typically less than that required for agricultural production; this reduced demand allows additional 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 these projects as temporary land 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 districtwide benefits.

[13] 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.

IID Water Rights

As noted above, IID and its customers are dependent on Colorado River water. The following section summarizes the laws and regulations that influence IID's water supply and demand. 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 state that California has the most senior water rights along the Colorado River and that IID specifically has access to 3.1 MAF per year (the largest allocation on the Colorado River). 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 (Water Code §§ 20529, 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" (Compact) was signed by the representatives giving the Lower Basin (Arizona, California and Nevada) perpetual rights to annual apportionments of 7.5 million acre-feet (MAF) of Colorado River water (75 MAF over ten [10] years). The Upper Basin (Wyoming, New Mexico, Colorado and Utah) 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 AAC, 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 (6) 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 un-apportioned 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. Although the three (3) states never formally settled or agreed to these terms, a 1964 Supreme Court decision (*Arizona v. California*, 373 U.S. 546) declared the three (3) 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 (CAP) 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 United States 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 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 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 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)[14] within California for use of Colorado River water; and the obligation to implement and fund environmental impact mitigation.

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

[14] 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.

terms. As specified in the agreements, IID will transfer nearly 415,000 AFY over a 35-year period (or longer), as follows:

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

All of the conserved water will ultimately come from IID system efficiency 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 (Fallowing Program), 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 water without impacting local productivity. In addition, IID will transfer 67,700 AFY annually to SDCWA 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 acre feet per year 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)[15]

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, IID, CVWD, MWD and SDCWA. This agreement involves the federal government because of the change in place of diversion from Imperial Dam into the AAC 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 use of 3.1 MAF per year) and CVWD (consumptive use of 330 thousand AF [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

[15] CRWDA: Federal QSA. 7 June 2017.

less than half of any declared surplus) are defined by the terms of the QSA/Transfer Agreements (Table 11). As specified in the CRWDA, by 2026, IID annual use within its water service area (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 11 QSA Colorado River Use – Annual 4.4 MAF Apportionment Cap (Priorities 1 to 4) for California Agencies (Excluding Transfers and Exchanges)

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 2009 Annual Water Report, p 15.

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.[16] 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 affect 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)

The 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).[17] 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

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

[17] 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.

is allowed a maximum overrun of ten 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 twenty percent (20%) 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 1,125 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 is reported in the United States Bureau of Reclamation (USBR) Lower Colorado Region Colorado River Accounting and Water Use Report for Arizona, California, and Nevada (Decree Accounting Report).[18].

1970 Criteria for Coordinated Long-Range Operation of Colorado River Reservoirs

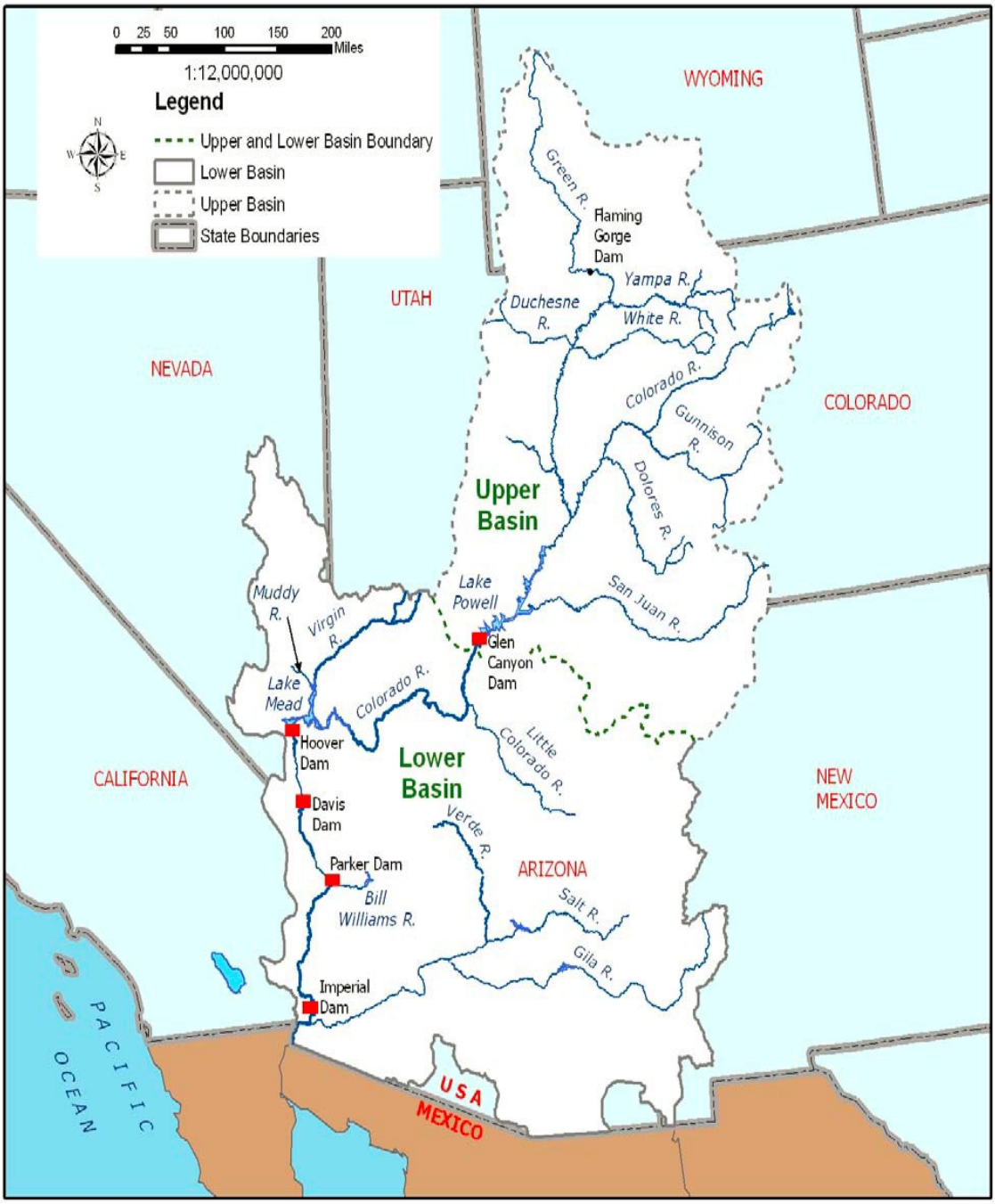
The 1970 Operating Criteria control operation of the Colorado River reservoirs in compliance with requirements set forth in the Colorado River Compact of 1922, the United States-Mexico Water Treaty of 1944, the Colorado River Storage Project Act of 1956, the Boulder Canyon Projects Act (Lake Mead) and 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 4 identifies the major storage facilities and the Upper Basin and Lower Basin boundaries.

Annual Operating Plan for Colorado River Reservoirs

The Annual Operating Plan (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; 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.

[18] 2003 CRWDA ROD. Section IX. A.6.c,, page 18 of 34.

Figure 4 - *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..

2007 Colorado River Interim Guidelines for Lower Basin Shortages (2007 Interim Guidelines)

A multi-year drought in the Upper Colorado River basin that began in October 1999 was the trigger for the 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.[19, 20] By August 2011, inflow was 279 percent of average; however, drought resumed in 2012 and has continued through water year 2014. Using the record in Table 12, average unregulated inflow to Lake Powell for water years 2000-2014 is 71 percent; or if 2011 is excluded, 66 percent of the historic average.

Table 12 - Unregulated Inflow to Lake Powell, Percent of Historic Average, 2000-2015

2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
62%	59%	25%	51%	49%	105%	73%	68%	102%	88%	73%	136%	35%	49%	90%	83%

Sources:
Drought in the Upper Colorado River Basin (2000-2010), and UCR Water Operations: Historic Data (2011-2016)

The four key elements of the ISG Preferred Alternative, which will guide operations of Lake Powell and Lake Mead through 2026 are:

- Establish rules for shortages: Define discrete elevations associated with Lake Mead shortage volumes to 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.
- Establish coordinated operation of Lake Powell and Lake Mead: Fully coordinate operation of the reservoirs to minimize shortages in the Lower Basin and to avoid risk of curtailments of water use in the Upper Basin thereby better sharing the risks associated with drought.
- Establish rules for storage and delivery of conserved water in Lake Mead: Intentionally Created Surplus mechanism provides for creation, accounting, and delivery of conserved system and non-system water thereby promoting water conservation in the Lower Basin. Credits for water conserved by Lower Basin State users that result in an ICS are available for release from Lake Mead at a later time. Total credits are set at 2.1 MAF, but could increase to 4.2 MAF.
- Address drought impacts by encouraging water conservation: Modify and extend the ISG (66 Fed. Reg. 7772, Jan 25, 2001) through 2026 and modify elements to eliminate the most liberal surplus conditions thus leaving more water in storage to reduce the severity of future shortages.

A significant mandatory provision of this agreement is that the Basin States will address future

[19] Water Year: October 1 through September 30 of following year, so year ending September 30, 1999, is the 1999 water year.
[20] Drought in the Upper Colorado River Basin. August 2011.

Colorado River controversies through consultation and negotiation before resorting to litigation.[21] IID is able to store some amount of Intentionally Created Surplus water in Lake Mead under these provisions.

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.[22]

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.
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.

[21] Final EIS: Record of Decision Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lakes Powell and Mead. December 2007.

[22] USBR website: Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead,

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 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.

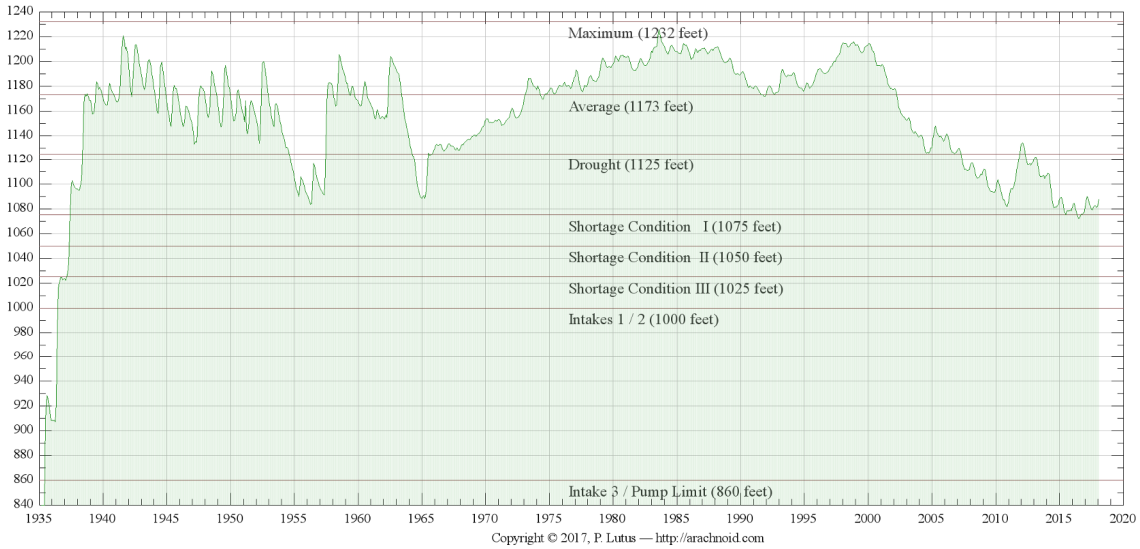
With respect to the various interests, positions and views of each of the seven basin states, this provision adds an important element to the evolution of the legal framework for the prudent management of the Colorado River. Furthermore, the coordinated operation element allows for adjustment of Lake Powell releases to respond to low reservoir storage conditions in either Lake Powell or Lake Mead[23].

Lower Colorado Region Water Shortage Operations

The drought in the Colorado River watershed has continued through 2017 despite an increase in observed runoff in August 2011 when unregulated inflow to Lake Powell was 279 percent of the average (**Figure 5**). Since 2000, Lake Mead has been below the "average" level of lake elevations. Such conditions have caused the preparation of shortage plans for waters users in Arizona and Nevada, and in Mexico.

[23] For a discussion of the 2007 Interim Guidelines, see: Intermountain West Climate Summary by The Western Water Assessment, issued Jan. 21, 2008, Vol. 5, Issue 1, *January 2009 Climate Summary*, Feature Article, pages 5-7, 8 June 2017 .

Figure 5 - Lake Mead Water Elevation Levels



For graph of latest elevations 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.

IID Water Supply – Normal Year, Single Dry and Multiple Dry Years

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 supply in IID's arid environment along with IID's strong entitlements to the Colorado River water supply. Local rainfall does have a slight 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 in this region for this supplier.

IID Water Supply – Normal Year

IID is entitled to annual consumptive use of 3.1 million acre-feet of Colorado River, less its QSA transfer 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 All-American Canal for use throughout the Imperial Valley.

IID historical and forecast net consumptive use volumes at Imperial Dam from CRWDA Exhibit B are shown in Table 13. Volumes for years 2003-2015 are adjusted for USBR Decree Accounting historical records. Volumes for years 2016-2077 are from the CRWDA Exhibit B modified to reflect changes to the 1988 IID/MWD Transfer the 2014 Letter of Agreement[24] changes to the 1988 IID/MWD Water Conservation Agreement.

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 13, Column 11). That annual volume is the IID Priority 3(a) Quantified Amount of 3.1 million acre-feet (MAF) (Table 13, Column 2) less the IID transfer program reductions for each year (Table 13, Columns 3-9). These volumes represent the supply available to IID at Imperial Dam.

The CRWDA Exhibit B Net Available for Consumptive Use volumes less system operation demand represent the amount of water available for delivery by IID Water Department to its customers each year. In a normal year, perhaps 150,000 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.

[24] Letter Agreement for Substitution and Conservation Modifications to the IID/MWD Water Conservation Agreement - December 18, 2014 http://www.iid.com/home/showdocument?id=9951

Table 13 - 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	30.2	8.0	0.0	11.5	280.2	2566.7
2010	3,100	105.0	70.0	67.7	33.7	12.0	0.0	11.5	299.9	2545.6
2011	3,100	103.9	63.3	67.7	0.0	16.0	0.0	11.5	246.4	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	2,554.8
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	476.32	2,480.9
2016	3,100	105	100	67.7	130	41	100	11.5	555.2	2,544.8
2017	3,100	105	100	67.7	150	45	91	11.5	570.2	2,529.8
2018	3,100	105	130	67.7	0	63	0	11.5	377.2	2,722.8
2019	3,100	105	160	67.7	0	68	0	11.5	412.2	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
'29-37	3,100	105	200	67.7	0	103	0	11.5	487.2	2,612.8
'38-47 [6]	3,100	105	200	67.7	0	103	0	11.5	487.2	2,612.8
'48-77 [7]	3,100	105	200	67.7	0	50 [8]	0	11.5	434.2	2,665.8

Source: CRWDA: Federal QSA Exhibit B, p 13.

Note: Shaded columns represent volumes of water that may vary.

1. 2003 through 2015, 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 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; 2015 total amount of conserved water that will be available is 107,820 AF.
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 2016.*
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), and Misc. PPRs. Amounts are independent of increases and reductions as allowed under 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.

IID Water Supply – 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 on its entitlement for Colorado River water. Due to the priority of their water rights and other agreements, drought affecting Colorado River water supplies causes shortages for Arizona, Nevada and Mexico, not California or IID. Accordingly, the Net Available for Consumptive Use volumes in Table 13, Column 11 represent the water supply at Imperial Dam available for diversion by IID in a 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 or less on January 1 in the calendar year after the overrun is reported in the USBR Lower Colorado Region Colorado River Accounting and Water Use Report for Arizona, California, and Nevada (Decree Accounting Report), the IOPP prohibits additional overruns and requires that outstanding overruns are to be paid back in the subsequent calendar year rather than in three years as allowed under normal conditions; that is, in in the calendar year following publication of the overrun in the Decree Accounting report.

For historical IID annual rainfall, net consumptive use, transfers and IID underrun/overrun amounts, see Table 14. Note that the district has not had an annual overrun since calendar year 2012.

Table 14 IID Annual Rainfall, Net Consumptive Use and Underrun/Overrun Amounts, 1988-2015

Year	IID Total Annual Rainfall	IID Net Consumptive Use	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	8,957		
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	65,451	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	0	36,000	67,700

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

Project Water Supply Sources

Water for the Project will be needed on-site during commissioning/construction, operation and decommissioning/restoration for potable, non-potable and facility maintenance needs. Untreated Colorado River water will be supplied to the project via the adjacent delivery gates noted in Table 1. Potable water will be obtained for the duration of the Project from a state-approved provider[25] and will be trucked to the site. The Project will utilize and be charged the Schedule 7. General Industrial Service water rates and may also be designated under the IWSP as summarized below. No groundwater will be utilized due to the poor groundwater quality in the region.

Schedule 7 – General Industrial Use Water

At the present time, IID is providing water for use by solar energy generation projects under Water Rate Schedule 7. General Industrial Service.

The Project will seek to obtain Conditional Use Permits (CUP) from Imperial County to allow a change from crop production to solar energy production and energy storage. Any reduction in water use due to this change is available under the IID TLCFP. 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 to adopted the TLCFP to address how to deal with any such temporary reduction of water use by projects like Drew Solar 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 for the term of the CUP or the Project's life, whichever is shorter; thus providing district-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 their farming operations.

IWSP Water

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 2017, IID has 23,800 AF available under the IWSP for new projects like Drew Solar. 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. Drew Solar water use will be subject to the annual Water Supply

[25] To comply with US EPA requirements and avoid termination of canal water service, MCI water users in the IID 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 section [Q: what is meant by "the section"?] tracks nearly 4,000 raw water service accounts required by the California Department of Public Health (CDPH) to have alternate drinking water service. The section maintains a small-acreage pipe and drinking water database, and provides an annual compliance update to CDPH.

Development fee if IID determines that water for the Project is to be supplied under the IWSP.

The likelihood of IID not receiving its annual 3.1 MAF apportionment, less transfer obligations of Colorado River water is low due to the high priority the IID entitlement enjoys relative to other Colorado River contractors. See the "Lower Colorado Region Water Shortage Operations" discussion at the end of the IID Water Rights section above. However, if this were to occur within the 41-year span of the Project, the Project proponent is to work with IID to ensure it can manage any reduction.

As such, this 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. Rather, this contract term reaffirms that 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. For the reasons presented in discussed within this WSA, IID has a water supply that is sufficient to support the water demands forecasted for this Project, as well as other existing uses and projected future. Indeed, without the Project, IID's task of managing water supply would be more difficult because the continued agricultural use on the Project site would be significantly higher than the proposed demand for the Project as explained in more detail below.

To obtain water delivery service, the Project proponent 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. If water is to be provided under IWSP in addition to Schedule 7. General Industrial Use, the Project proponent will seek to enter into a IWSP Water Supply Agreement.

Expected Water Demands for the Project

During operation water will be used for domestic uses and fire protection in addition to other uses. The Project may also use water to wash the solar modules should it be determined to be beneficial to the Project. The Project anticipates a requirement of approximately 60 AFY during plant operation as shown in Table 15 below. The operational water demand will be combined with water demands over construction and decommissioning phases of the Project to calculate an amortized water demand over the lifetime of the Project as described below.

Table 15 - Project Operational Water Demands at Buildout

Source of Water Demand	Amount Required, AFY
Fire Protection	1.0
Sanitary Water	5.0
Panel Washing	14.0
Dust Suppression	35.0
Potable Water	5.0
Total	**60.0**

Due to the proposed Project phasing under the development agreement, it is unknown which year within the first 10 years of the 40-year CUPs the Project will commence construction. It is possible that construction will commence in 2019 at one time, or over five phases over a 10 year period. Regardless of construction phasing, total construction and decommissioning water demands are anticipated to be 1,200 AF each. In order to provide a conservative assessment, this WSA assumes that all the CUPs will commence construction in 2019 at once to allow for the longest fully operational lifetime of the Project (39 years). Decommissioning of the Project would occur immediately after the 40-year CUP term in year 41 and is assumed to take one year. Therefore, an amortized water demand of 116 AFY level for 41 years is assumed. This would result in a total water demand of 4,740 AF as shown in Table 16 below.

Table 16 Amortized Project Water Demand 2019-2060

Project Phase	Water Demand
Construction Water Usage – Year 1 (2019)	1,200 AF
Operational Water Usage – 60 AFY over 39 years (2020 – 2059)	2,340 AF
Decommissioning Water Usage – Year 41 (2060)	1,200 AF
Total Project Water Demands over 41 years	4,740 AF
Amortized Actual Water Demand – 4,740 AF over 41 years	116 AFY

Even though this methodology over-estimates the Project's water demand, this methodology allows the Imperial County Board of Supervisors to assess the water supply impacts of a full construction of the Project at any time within the first 10 years of the CUP assumed approval date (2019).

IID delivers water to the Drew Solar Project area for agricultural uses through delivery gates

on the Wormwood and Woodbine supply systems, shown in Table 1. The agricultural water uses are estimated to be approximately 4,618 AFY (average delivery between 2003 and 2017).[26]

The proposed Project water demand of 116 AFY is a 97% reduction from the water delivered for agricultural uses at the Project site and will contribute 4,502 AFY of conserved water to the TLCFP. The water demands from the proposed Project will be covered by the Schedule 7. General Industrial Service. In addition, the proposed water demand also represents 0.5% of the current balance of 23,800 AYF of supply available for contracting under the IWSP highlighting there is sufficient water available if IID designates the Project to be covered under the IWSP. The significant reduction from existing agricultural water demand, and the availability of IWSP water proves there is water supply available for the proposed Project.

[26] Historic water delivery data to Project site was provided by IID in February 2018.

IID Ability to Meet Demands with Water Supply

Table 17 provides the basis for assessing the ability of IID to meet its customers' water demands through 2060. Table 17 includes IID non-agricultural delivery demands from Table 7, agricultural demands from Table 8, system operation consumptive use from Table 9, and CRWDA IID net available consumptive use after required QSA reductions from Table 11 (Column 11). Table 18 presents IID's 2015 approved water order, consumptive use at Imperial Dam reported from the USBR Decree Accounting Report, and the 2015 underrun reported to the State Water Resources Control Board.

Table 17 IID 2015 and Forecasted Delivery, and Consumptive Use, KAF

	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
1. Non-Ag Delivery	107.8	125.0	134.7	144.5	153.0	164.7	177.0	190.0	200.9	211.7
2. Ag Delivery	2,157.7	2,308.5	2,258.5	2,208.5	2,208.5	2,208.5	2,208.5	2,208.5	2,208.5	2,208.5
3. QSA Salton Sea Mitigation Delivery	142.6	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
4. System Op CU in IID & to Imperial Dam	343.9	436.0	411.0	407.0	407.0	407.0	407.0	407.0	407.0	407.0
5. WB/ IRWMP IID Net CU at Imperial Dam	**2752.0**	**2869.5**	**2804.2**	**2760**	**2768.5**	**2780.2**	**2792.5**	**2805.5**	**2816.4**	**2872.2**
6. Ex.B IID Net Available CU at Imperial Dam	2,564.8	2,649.8	2617.8	2612.8	2612.8	2612.8	2612.8	2665.8	2665.8	2665.8
7. IID CU: WB/IRWMP minus Ex.B Net Available	**187.2**	**219.7**	**186.4**	**147.2**	**155.7**	**167.4**	**179.7**	**139.7**	**150.6**	**161.4**

Notes:
2015 Water Balance rerun 03/21/2017
Ag Delivery for years 2020-2055 in line 2 does not take into account land conversion for solar use nor reduction in agricultural land area due to urban expansion; the forecast ag demand is for 2003 acreage with reduction for projected on-farm conservation efficiency.

As shown above, IID forecasted demand exceeds CRWDA Exhibit B Net Consumptive Use volumes. However, due to temporary land conversion 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. As shown in Row 7 in Table 17 above, the additional 217 KAF of water will more than satisfy future demands. Additional details on the savings methodology are provided in the following section.

In addition, USBR 2015 Decree Accounting Report states that IID Consumptive Use is 2,480.9 KAF with an underrun of 97.2 KAF, as reported by IID in 2016 IID QSA Implementation Report (page 7); that is, IID uses less than the amount in its approved Water Order (2,592.6 to 2.617.6 KAF). This would indicate that although IID forecasted demand shown in Table 17 exceeds CRWDA Exhibit B Net Consumptive Use volumes for the entire the life of the Project, IID consumptive use may in fact not be as high as forecasted. In addition, given that the Project will use less water than the existing agricultural demand, the Project will decrease rather than

increase overall IID water demands.

Table 18 2015 Approved Water Order, Actual CU (Decree Accounting Report) and IID Underrun, KAF at Imperial Dam

IID Approved Water Order	2,592.6 to 2,617.5 less 7.2 supplied by LCWSP
IID Consumptive Use	2,480.9
IID Underrun /Overrun	97.2
Sources: *2015 IID Revised Water Order, Nov 25, 2015, 2015 Decree Accounting Report, and* *2015 Annual Report of IID Pursuant to SWRCB Revised Order WRO 2002-013*	

As shown below in Table 19, IID measures inflow to the water service area at All-American Canal Station 2900 just upstream of Mesa Lateral 5 Heading. This AVM has an excellent measurement accuracy, 2.4% CI. The 2015 measured inflow at this site was 2,603.8 KAF, which exceeded the CRWDA Exhibit B Net Available for Consumptive Use of 2,564.8 KAF by only 39.0 KAF or when AAC system operation and LCWSP input are added to the AAC measurement by 94.3 KAF, well within the measurement accuracy for this site.

Table 19 2015 WB: IID System Operations Use within the IID water service area and to Imperial Dam, KAF

Delivery System Evaporation	24.5
Canal Seepage	93.9
Canal Spill	1.5
Lateral Spill	125.4
Seepage Interception	-41.1
Unaccounted Canal Water	-7.5
Total System Operational Use, In valley	288.6
Imperial Dam to AAC @ Mesa Lat 5	62.5
LCWSP	-7.2
Total System Operational Use in 2015	**343.9**
Source: 2015 Water Balance rerun 03/21/2017	

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

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 for temporary conversion to solar projects (about 5% of the County's agricultural lands), because they found that a 5% reduction in agricultural lands for solar projects would not adversely affect

agricultural production. Existing solar developments have converted approximately 7,104 acres of farmland[27]. Through the temporary land conversion fallowing program, these projects reduced water usage by the equivalent of 36,430 AF yield at-river in 2015[28].

The balance of the 25,000-acre agriculture-to-solar policy is 17,896 acres. On average, each agricultural acre converted would reduce agricultural demand by 5.13 AFY (36,430 AF/7,104 AC), which results in an at-river yield (reduction in net consumptive use) of 91,800 AFY in addition to the 36,430 AF yield at-river from projects constructed through 2015, for a total of 128,230 AFY yield at-river.

However, due to the nature of the conditional use permits under which the solar projects are being developed, IID cannot rely on this "new" 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) and the water demand increase back up that of the existing agricultural land use. Nevertheless, during their operation, the solar projects do ameliorate pressure on IID to implement projects to meet demand from new non-agricultural projects and under the IWSP.

Unlike the impact of solar projects, other non-agricultural uses are projected to grow, as reflected in the nearly 100% increase in non-agricultural water demand 2015 to 2060 (from 108.85 KAF to 211.7 KAF) reflected herein on Table 7. Much of that growth will occur within the sphere of influence areas surrounding incorporated city boundaries within the IID service area, which are currently used for agriculture and demand high levels of water use.

The amount of land developed for residential, commercial, and industrial purposes is projected to grow by 55,733 acres from 2015 to 2050[29] 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.

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 17. 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 not only the next 20 years, as is required for SB 610 analysis, but for the entire 41 year life of the project.

Expanding Water Supply Portfolio

While forecast Yield at-river from the growth of non-agricultural uses in the County is sufficient to meet the forecasted excess of non-agricultural use over Net Available supply the IID service area without expanding its Water Supply Portfolio, IID has also evaluated the feasibility of certain

[27] Imperial Valley Solar II; Alhambra/Arkansas/Sonora Solar Gen 2; Campo Verde; Imperial Solar South, Calexico II-B; and Centinela Solar.
[28] 2015 Temporary Land Conversion Fallowing Program; found here: http://www.iid.com/home/showdocument?id=11625
[29] IRWMP, Chapter 5, Table 5-14.

capital projects to "increase" its Water Supply Portfolio. As reported in the 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. Areas within IID's service area with physical, geographical (i.e., market demand for the water), 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 alternatives, 1 groundwater banking alternative, and 1 IID system conservation project alternative.

These 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 defined as those projects that were less feasible due to technical, political, or financial constraints. Preferential criteria were project characteristics that would increase the relative benefits of a project and grant it a higher priority. Four criteria were used to prioritize the IID capital projects:

- Financial Feasibility. Projects whose unit cost was more than $600/AF were eliminated from further consideration.
- Annual Yield. Project alternatives generating 5,000 acre-feet or less of total annual yield were determined not to be cost-effective and lacking necessary economies of scale.
- 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.
- 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 displayed Table 20 below.

Table 20 - IID Capital Project Alternatives and Cost (May 2009 price levels)

Name	Description	Capital Cost	O&M Cost	Equivalent Annual Cost	Unit Cost ($/AF)	Yield (AF)
GW 18	Groundwater Blending East Mesa Well Field Pumping to AAC	$39,501,517	$198,000	$2,482,000	$99	25,000
GW 19	Groundwater Blending East Mesa Well Field Pumping to AAC with 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	East 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 (2)	$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	South Salton Sea Desalination with Alamo River Water and Industrial Distribution	$158,619,378	$15,491,901	$24,664,901	$493	50,000
DES 15	South 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						

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.

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 obligations. Such efficiencies combined with the conversion of some agricultural land uses to non-agricultural land uses (both solar and non-solar), ensure that IID can continue to provide water supply to its existing and future agricultural and non-agricultural water users, including the Drew Solar Project for the required 20-year CEQA timeframe for WSAs and the anticipated 41 year Project lifetime. IID has also evaluated the feasibility of new capital water supply projects, but does not find them necessary to implement at this time in order to meet existing and forecasted water demands within its service area.

Public Water System/Lead Agency Findings

1. 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.
2. IID's entitlement to consumptive use of Colorado River water is capped at 3.1 MAF pursuant to the QSA. In 2015 IID consumptively used 2,480,933 AF of Colorado River water (volume at Imperial Dam); 2,266,884 AF were delivered to customers of which 2,157,672 AF or 95.14 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.
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.
6. The Drew Solar Project is estimated to use 1,200 AF of water during construction, 60 AFY of water during operation, and 1,200 AF during decommissioning, for a total amortized water demand of 116 AFY over the total 41-year life of the Project. This is a 97% decrease when compared to existing agricultural water use at the Project site.
7. The Project water use will be covered under the "Schedule 7. General Industrial Water Service." If this Project utilizes IID's IWSP for Non-Agricultural Projects, water for this Project will be supplied to the Project site via a Water Supply Agreement with IID. Provided a Water Supply Agreement is approved and executed by IID under the provisions of its IWSP, the Project will use only 0.5% of the 23,800 AFY of currently available IWSP water.
8. Based on the entire record and the environmental document prepared for this Project pursuant to the CEQA, California Public Resources Code sections 21000, *et seq.*, Imperial County hereby finds that the projected water supplies will be sufficient to satisfy the demands of this Project, in addition to existing and planned future uses, including agricultural and non-agricultural uses for a 20 year period and a 41 year period.

Assessment Conclusion

This WSA has determined that IID water supply is adequate for this Project. The IID's IWSP for Non-Agricultural Projects dedicates 25,000 AFY of IID's annual water supply to serve new projects. To date 23,800 AF per year remain available for new projects ensuring reasonably sufficient supplies for new non-agricultural water users. Total water usage for the Project life represents 0.5% of the unallocated supply set aside in the IWSP for non-agricultural projects, and approximately 0.05% of forecasted future non-agricultural water demands planned in the Imperial IRWMP through 2060. In addition, the Project represents an estimated 97% decrease of the water demand for agricultural uses at the Project site and will provide a reduction in use of an estimated 4,502 AFY at Full Build-Out.

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 Drew Solar water needs will be met for the next forty-one (41) years.

Resources

1. California Department of Water Resources. (2003). Guidebook for Implementation of Senate Bill 610 and Senate Bill 221 of 2001 to assist water suppliers, cities, and counties in integrating water and land use planning.

2. Imperial County Planning and Development Services. (2008). Imperial County General Plan 2008 Update. El Centro, CA.

3. Imperial Irrigation District. 7 April 2009. Environmental Compliance Report for Revised Regulations for Equitable Distribution Plan. Imperial, CA: http://iid.com/Water/EquitableDistribution.

4. Imperial Irrigation District. 29 September 2009. Interim Water Supply Policy for Non-Agricultural Projects. Imperial, CA

5. Imperial Irrigation District. October 2012 Imperial Integrated Regional Water Management Plan, Chapter 12.

6. Imperial Irrigation District. 2015 Annual Report of IID Pursuant to SWRCB Revised Order WRO 2002-013

7. Imperial Irrigation District Website: Water Conservation Plan. Resources Planning and Management. (2008). Imperial Irrigation District 2007 Water Conservation Plan. Imperial, CA.

8. Imperial Irrigation District Website: QSA Annual Report Resources Planning & Management. (2010). Imperial Irrigation District 2009 Annual QSA Implementation Report. Imperial, CA.

9. Imperial Irrigation District Water Resources and Grant Management (2017) Consultation with Anisa J Divine, Ph.D., Senior Planner. Imperial, CA.

10. United States Department of Agriculture Soil Conservation Service. (1981). Soil Survey of Imperial County California Imperial Valley Area.

11. 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.

12. United States Bureau of Reclamation. 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.

13. Imperial Irrigation District. 2015 Temporary Land Conversion Fallowing Policy. Found here: http://www.iid.com/home/showdocument?id=11625

14. Imperial County. Imperial County General Plan, Geothermal/Alternative and

Transmission Element, revised 2006 and 2015.

15. Imperial County. 2015 Imperial County Agricultural Crop & Livestock Report. September 27, 2016.

IID Interim Water Supply Policy for Non-Agricultural Projects

1.0 Purpose.

Imperial Irrigation District (the District) is developing an Integrated Water Resources Management Plan (IWRMP) 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.

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.

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.

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, 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.

Imperial Irrigation District
Interim Water Supply Policy
2019 Fee Schedule

Annual Demand (Acre-Feet)	*Table A Reservation Fee	*Table B Development Fee
0-500	$73.15	$292.62
501-1000	$103.00	$412.00
1001-2500	$129.34	$517.34
2501-5000	$159.77	$639.07

*To be adjusted annually after 2010 in accordance with the Consumer Price Index (CPI).

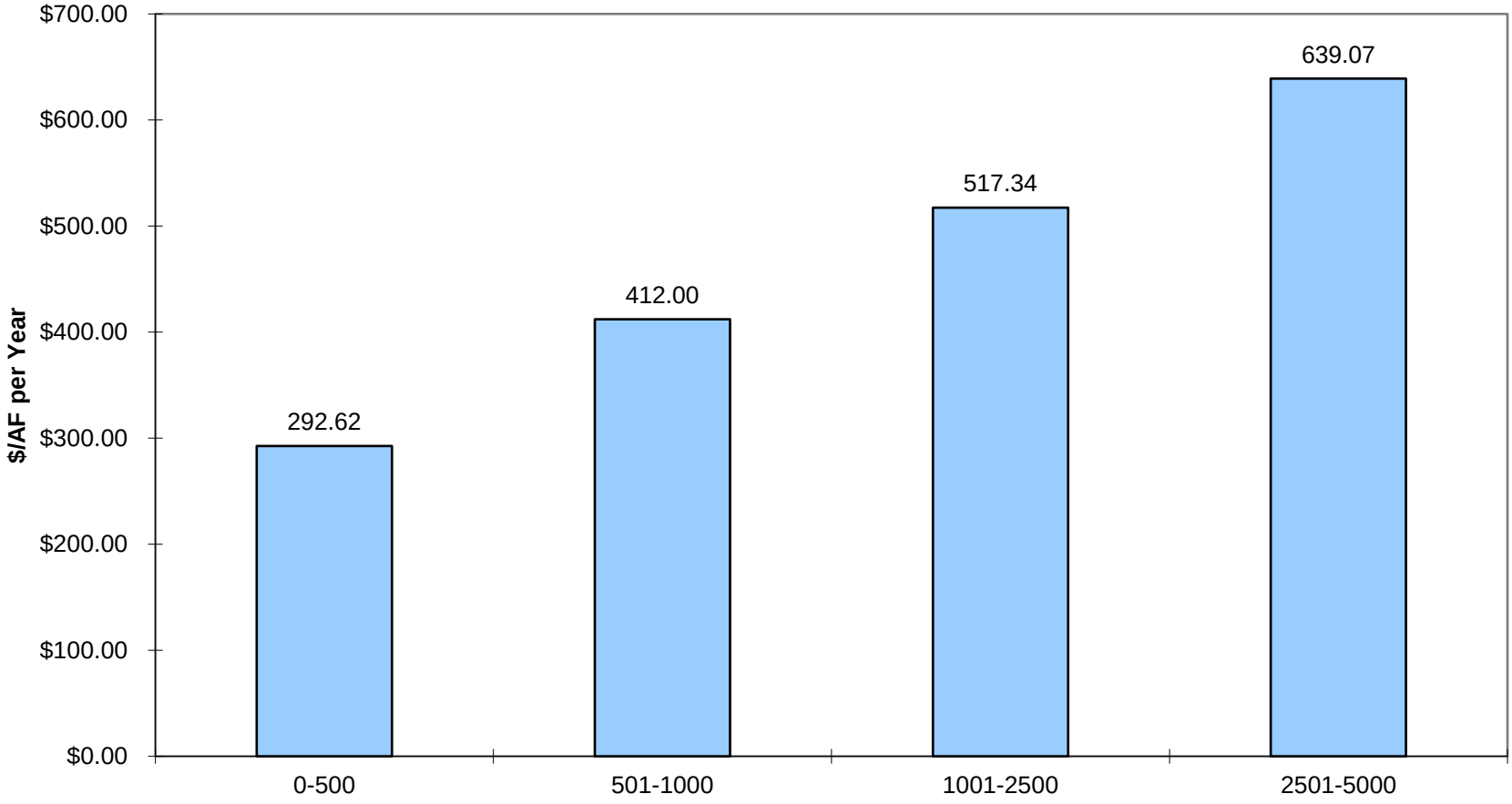
This is a tiered fee schedule.

Example: 1200 AF demand

Reservation Fee = (500af*$73.15/af) + (500af*$103.00/af) + (200af*$129.34/af)
= $36,576.88 + $51,500.24 + $25,867.17
= **$113,944.29**

Development Fee = (500af*$292.62/af) + (500af*$412.00/af) + (200af*$517.34/af)
= $146.307.51 + $206,000.98 +$103,468.67
= **$455,777.17**

Table B
INTERIM WATER SUPPLY POLICY
Annual 2019 Non-Agriculture Projects Water Supply Development Fee



Note: Fee schedule applies to 2019 contracts only; and will either be adjusted annually by the Consumer Price Index (CPI) over the prior year, or otherwise updated periodicly to reflect evolving replacement project costs and actual industrial water supply activity.