

**6.0 OVERVIEW OF UTILITIES PLAN**

This section of the McCabe Ranch II Specific Plan addresses the utility systems required to serve the Plan area. Each component of the utility system is designed to ensure adequate infrastructure capacity to serve demand from all land uses at build-out of the McCabe Ranch II Specific Plan. The following Plan area utilities are discussed in detail below: water, wastewater, storm drainage and detention, electricity, and natural gas. **Table 6-1** lists the utility providers. Additional utilities including telephone and cable television will also be available. The telephone service provider is AT&T and the cable television service provider is Adelphia Cable. Many of these utilities are located within public road rights-of-way described in Section 3.0 - Circulation Plan.

As future development projects are proposed under the Specific Plan, the individual project applicants will work in collaboration with the IID to extend electrical facilities to the Specific Plan area upon project approval by the County Planning Commission.

**TABLE 6-1  
UTILITY PROVIDERS**

Utility	Provider
Water	Heber Public Utility District
Sewer	Heber Public Utility District
Storm Drainage	County of Imperial/Imperial Irrigation District
Natural Gas	Southern California Gas Company
Electricity	Imperial Irrigation District

The following Specific Plan policy will ensure that adequate funding is available to assist in development of infrastructure within the Specific Plan area.

**Policy Util-1**      The McCabe Ranch II Specific Plan Area future developers shall go through a three-phase process with the Heber Public Utilities District that includes contributing fair-share payment for the infrastructure and a budgetary estimate of the total cost of the new infrastructure. The project applicant shall also work in coordination with the County of Imperial to build adequate water lines to connect with the HPUD lines or to convey the water demand from the project.

**6.1 WET UTILITIES**

**6.1.1 WATER SUPPLY**

The McCabe Ranch II Specific Plan is located within the Heber Public Utility District (HPUD) service area. Heber Public Utility District is currently in the process of expanding its water treatment facility. The McCabe Ranch II Specific Plan is a long term development and it is anticipated that the developer of the plan will need costs associated with the Plan’s impacts to the water system.

Potable water will be distributed throughout the Plan area via a looping network of water lines provided within the internal street right-of-ways. The exact number and location of water utility improvements will be determined when the final site, grading, and utility plans are prepared by the project engineer, subject to review and approval by the County of Imperial, Heber Public Utility District, and the Imperial Irrigation District (IID).

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The Heber Public Utility District Service Area Plan (adopted on February 23, 2006), identifies the existing water and wastewater treatment facilities, the present capacity and demand, along with the future needs. In Table 3 (2009-2013 Additional Water Demand) of the HPUD SPA it shows the McCabe Ranch II Specific Plan's total demand to be 1,076,150, along with other future developments.

**TABLE 6-2**  
**HEBER PUD 2006 SERVICE AREA PLAN**

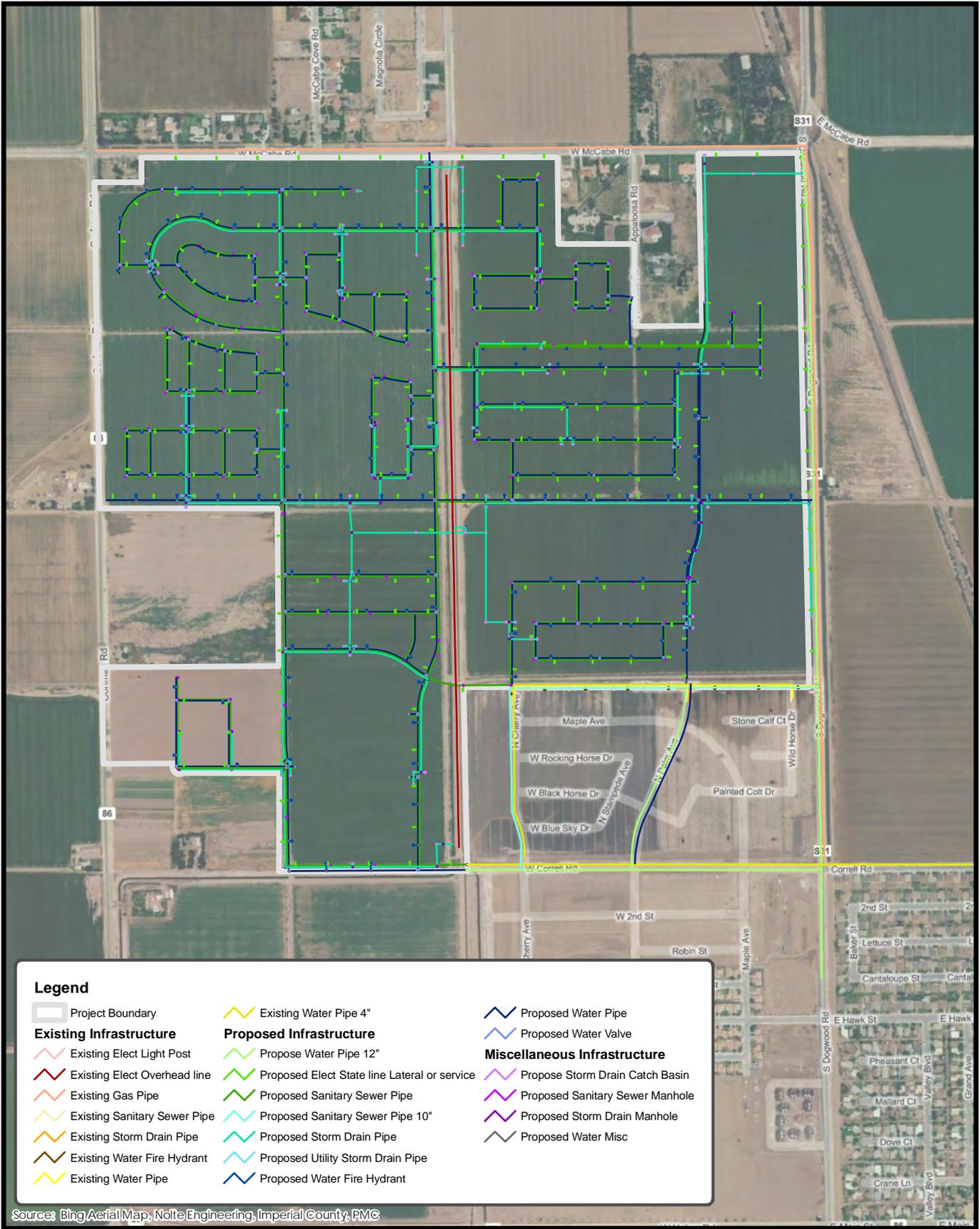
<b>Development</b>	<b>Type</b>	<b>Total Additional Average Day Water Demand (gpd)</b>	<b>Total Additional Max Day Water Demand (gpd)</b>	<b>Total Additional Peak Hour Water Demand (gpd)</b>
McCabe Ranch II	Residential and Commercial	430,460	1,076,150	1,291,380
Scaroni Property	Residential and Commercial	805,320	2,013,300	2,415,960
Heber Ranch	Residential and Commercial	1,610,640	4,026,600	4,831,920
<b>Total</b>		<b>2,846,420</b>	<b>7,116,050</b>	<b>8,539,260</b>

*Source: Table 3 2009-2013 Additional Water Demand- Heber Public Utility District Service Area Plan (February 23, 2006)*

Water demand in the Plan area varies by land use and from the HPUD SPA projection. Different water demand factors for each land use within the Plan area are used to determine the estimated water needs at build-out of the McCabe Ranch II Specific Plan. The water demand factors and total water demand for each land use within the Plan area are provided in **Table 6-3**.

The proposed Water System Master Plan for the Plan area is depicted in **Figure 6-1**. The Specific Plan area is expected to have an annual water demand of approximately 1,291,380 million gallons per day (**Table 6-2**).

A water supply assessment (WSA) evaluating the adequacy of the supply of water to meet the projected demand generated by the McCabe Ranch II Specific Plan area is required prior to development approval pursuant to California Water Code §10910-10915. The WSA for McCabe Ranch II documents the following: the expected water demands of the project (**Table 6-3**); the reasonably foreseeable planned future water demands to be served by IID; and that adequate water supply will be available to the Plan area by IID during a normal year and multiple dry years and during a 20-year projection to meet existing demands.



Source: Bing Aerial Map, Nolte Engineering, Imperial County, PMC



Figure 6-1  
Existing and Proposed Infrastructure



**TABLE 6-3  
WATER DEMAND FACTORS AND TOTAL DEMAND BY LAND USE**

Land Use	Density	Daily Consumption Rate	Daily Consumption Rate per Unit
<b>Conventional Residential</b>			
Traditional Lot – Single Family (6,000sf)	3.42 people/unit	60 gallons/person; 150 gallons/unit (outdoor)	355 gallons
Small Lot – Single Family (4,000sf)	3.42 people/unit	60 gallons/person; 125 gallons/unit (outdoor)	330 gallons
Flex Lot – Single Family (3,400sf)	3.42 people/unit	60 gallons/person; 125 gallons/unit (outdoor)	330 gallons
High Density Multi-Family (25 units/ac)	3.18 people/unit	60 gallons/person; 100 gallons/unit (outdoor)	290 gallons
<b>Gated Community Residential</b>			
Estate Lots – Single Family (1/2 ac)	3.42 people/unit	60 gallons/person; 200 gallons/unit (outdoor)	405 gallons
Mini Estate Lots – Single Family (10,000sf)	3.42 people/unit	60 gallons/person; 175 gallons/unit (outdoor)	380 gallons
Low Density Single-Family (6,000sf)	3.42 people/unit	60 gallons/person; 150 gallons/unit (outdoor)	355 gallons
High Density Multi-Family (25 units/ac)	3.18 people/unit	60 gallons/person; 100 gallons/unit (outdoor)	290 gallons
<b>Non Residential</b>			
Business Park	100% Domestic (8.4AC)	3,000 gallons/AC	25,200 gallons
Commercial	100% Domestic (3.2 AC)	3,000 gallons/AC	9,600 gallons
Elementary School (McCabe)	600 students; 30 staff members; 40% grass/turf (5.32AC)	25 gallons/student; 20 gallons/staff; 5,000 gallons/AC	15,000 gallons (students); 600 gallons (staff); 26,600 gallons (grass)
Elementary School (Heber)	600 students; 30 staff members; 40% grass/turf (6.08 AC)	25 gallons/student; 20 gallons/staff; 5,000 gallons/AC	15,000 gallons (students); 600 gallons (staff); 30,400 gallons (grass)
Parks (open)	85% grass/turf (30.6 AC)	5,000 gallons/AC	153,000 gallons
Parks (gated)	85% grass/turf (13.26 AC)	5,000 gallons/AC	66,300 gallons
Roads	15% grass/turf (9.61AC)	5,000 gallons/AC	48,050 gallons

Consumption rate estimates derived from the 101 Ranch SB 610 Water Supply Assessment, Development & Design Engineering, July 2008.  
Source: WSA 2010

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### 6.1.2 WASTEWATER

Wastewater service to the McCabe Ranch II Specific Plan area is provided by HPUD. Heber Public Utility District is currently in the process of expanding its water treatment facility. The McCabe Ranch II Specific Plan is a long term development and it is anticipated that the developer of the plan will need costs associated with the Plan's impacts to the water system.

The Heber Public Utility District Service Area Plan (adopted on February 23, 2006), identifies the existing water and wastewater treatment facilities, the present capacity and demand, along with the future needs. In **Table 6-4** (2009-2013 Additional Wastewater Generation) of the HPUD SPA it shows the McCabe Ranch II Specific Plan's total demand to be 613,180, along with other future developments.

**TABLE 6-4**  
**2009-2013 ADDITIONAL WASTEWATER GENERATION**

Development	Type	Total Additional Average Day Wastewater Generation (gpd)	Total Additional Peak Hour Wastewater Generation (gpd)
McCabe Ranch II	Residential and Commercial	311,140	613,180
Scaroni Property	Residential and Commercial	703,560	1,400,520
Heber Ranch	Residential and Commercial	1,407,120	2,801,040
<b>Total</b>		<b>2,421,820</b>	<b>4,814,740</b>

Source: Table 4 2009-2013 Additional Wastewater Generation- Heber Public Utility District Service Area Plan (February 23, 2006)

Although according to the Services Area Plan HPUD has approximately 420,000 gpd of excess capacity in its wastewater treatment facility, new wastewater infrastructure must be provided to accommodate the anticipated wastewater discharge generated by each of the planned land uses in the Plan area (Figure 6-2). Discharge factors for each land use are used to calculate the total wastewater discharge for all land uses and for the entire development at buildout of the Plan area. A summary of these uses, the anticipated discharge and total Plan area discharge is provided in **Table 6-5**.

**TABLE 6-5**  
**TOTAL WASTEWATER DISCHARGE**

Land Use	Discharge Factors (Gallons/Unit/Day)	Population/unit	Total Discharge (Gallons Per Day)
Single Family Residential	120	5,275	632,966
Multiple Family Residential	100	2,943	238,428
Elementary Schools	25/ (students)/20(staff)	1,240	30,000/ 1,200
Commercial/Business Park	1,300	11.6	15,080
<b>Total</b>			<b>917,674</b>

### 6.1.3 STORM WATER MANAGEMENT

Urban storm water runoff in the Specific Plan area is the responsibility of the County of Imperial and the Imperial Irrigation District. Standard practice has been to use a combination of piping into the New River and discharge through a system of IID main and lateral drains to discharge

storm water. However, two issues limit the effectiveness of this arrangement: 1) IID drains were originally designed only for agricultural runoff, and the amount of urban runoff discharged into the drains is limited by IID to prevent downstream flooding; and 2) water quality problems regarding the New River and Salton Sea, the water body to which the drains ultimately discharge, prohibit the diversion of all storm water runoff to the New River. To address these issues, detention basins are used to control the amount of water discharged into IID drains.

The McCabe Ranch II Specific Plan area employs a combination of storm drain piping, detention facilities, and IID drains to accommodate storm water from the Plan area. The storm drain facilities, consisting of inlets and pipelines throughout the Plan area, are designed to handle general urban runoff of three inches of rain over the entire site within a 24-hour storm. The general urban runoff would be piped through the storm drain system, potentially into temporary detention facilities, and then into existing IID drains. **Figure 6-1** provides the existing and proposed infrastructure for the McCabe Ranch II Specific Plan.

The detention basins would be required to drain all discharge into the IID drainage system within 72-hours of any given storm event; otherwise, implementation of mosquito abatement would be required. All storm drain systems shall be designed to the standards of the County of Imperial and the California Regional Water Quality Control Board. Some detention basins would be landscaped for joint use as open space as well as water runoff storage. In addition, a landscaping plan for the detention basins shall be approved by the County of Imperial. The IID drains, on the south and center locations of the Plan area, receives and transports storm water collected by the Plan area's storm water piping and detention basin. Storm water runoff generated by the Plan area shall be connected at existing agricultural discharge locations via 12-inch pipes. However, the adjustment of a discharge location is permitted upon review and approval by IID. All storm water discharge connections shall comply with IID's "Water Requirements and Project Process".

## **6.2 DRY UTILITIES**

### **6.2.1 ELECTRICITY**

The Imperial Irrigation District (IID) provides electrical service to the Plan area. The closest existing lines to the Specific Plan area are located within the central portion of the Plan along the north-south Main Entry Parkway. Other existing IID transmission lines are located along Dogwood Road to the east and adjacent to the Union Pacific Railroad.

An electrical substation may be required to accommodate the electrical service needs of subsequent phases of the Plan. If required, the substation is expected to be located on an approximate 2.3 acre site in the business park component of the Plan area. According to IID requirements, the substation site would be served with two access roads and enclosed with a chain link fence. Right-of-way for ingress and egress, as well as transmission and distribution power line facilities will be provided by the project proponent. IID may negotiate with developers to share in the cost of upgrading the type of fencing for aesthetic purposes. All development within the Plan area will be consistent with IID substation policies and IID Energy Transmission Policy for construction and restrictions for use of IID energy transmission rights-of-way. New, on-site utilities within the Plan area will be undergrounded. If IID or any other agency determines that a new substation is unnecessary for service to the Plan area, the site will be absorbed into the business park component as general business use.

Line extensions can be constructed in advance of the substation in order to provide power for the first phases of development. Once title to a substation property is acquired by IID and all

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environmental documents and right of ways are secured, the substation will be built once load is sufficient to justify the expenditure and budgeted monies have been allocated.

A reliable electrical system that meets the demands of the McCabe Ranch II development would be assured through collaboration with IID during the planning, engineering and construction phases of the development. IID encourages the use of Energy Star products to promote energy conservation within the McCabe Ranch II Specific Plan area. Line extensions to serve the project site will be made in accordance with IID Regulation no. 15 and Regulation No. 2.

### **6.2.2 NATURAL GAS**

Natural gas is to be provided to the McCabe Ranch II Specific Plan area by the Southern California Gas Company. Delivery of natural gas service to individual projects within the Plan area would be reviewed by the Southern California Gas Company at the time such projects are proposed.