

CHAPTER TWELVE: POTABLE WATER

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CHAPTER TWELVE: POTABLE WATER

12.1 INTRODUCTION

This chapter summarizes Master Plan provisions related to the community's potable water system and states both the Plan Description and Implementation Measures for SP II.

The potable water supply will be utilized for human consumption, irrigation and other uses within the Mountain House community. The criteria used to plan and design the water supply facilities meet or exceed established MHCSD and State of California (State) guidelines and standards. A brief summary of the criteria is as follows:

Water Demand	Water demand is calculated based on the boundaries and land use plan detailed in this Master Plan. Quantification is based on actual demands accounting for land use types and implementation of water conservation measures within other similar communities. The estimated amount of water required for the entire Community at buildout with conservation measures is 9,856 ac. ft/year. This includes existing homes within the community that are currently serviced by private well.
Water Storage	Design based on typical engineering design standards, which exceed County standards.
Water Treatment	Design based on criteria established by the State.
Water Distribution	Design based on MHCSD requirements as stated in the MHCSD Development Standards.

12.2 POTABLE WATER SUPPLY

Master Plan Summary

The Master Plan provides that the Mountain House community will have an adequate year-round water supply through a service agreement between the Mountain House Community Services District (MHCSD) and BBID, which may be augmented by additional water supply including the option for use of riparian water via rights contained by lands in the northern portion of the community. The agreement specifies the quantity, cost and conditions of water service.

The portions of the Mountain House project area that do not currently lie within the BBID service area will be annexed to BBID, unless riparian water sources are used for these properties. The portions of the Mountain House area currently within the Westside Irrigation District and the Plain View Water District will be de-annexed from their respective districts and annexed to BBID. Riparian water rights associated with land between Byron Road and Old River will be reserved for project use. Until the parcels with riparian water rights are developed, the water diverted under riparian rights must be reserved for agricultural irrigation. Obsolete agricultural irrigation and drainage facilities will be removed or properly abandoned upon development of an area.

Specific Plan II will reevaluate the adequacy of the confirmed water supply for the Specific Plan Area in light of any potential or adopted restrictions on water diversion by BBID or DWR. The Specific Plan will not be approved unless it can be demonstrated that the confirmed water supply is sufficient to serve the Specific Plan Area through buildout.

Plan Description

The improvements required for the raw water to service SP II were initially constructed as part of the Specific Plan I. MHCS D currently operates a 2.5-MGD surface water treatment system, and storage, pumping, transmission, and distribution facilities.

Lands within SP II have been allotted approximately 5,246 acre-feet annually (AFA) of the available BBID supply (9,413 AFA). The present water demands for SP II are approximately 5,462 AFA using unit water demands reflecting water conservation without reclamation, as described in Table 12.1 of the Master Plan.

Even though water demands within SP II have been reduced from the 1994 Master Plan (see Section 12.3 and Table 12.1: SP II Potable Water Demand), total water demands at build-out exceed the BBID water supplies allotted to SP II by approximately 216 AFA. This difference between supplies and demands may be supplied from riparian water, additional BBID water, additional conservation, or recycled water.

The MHCS D and BBID have an existing Water Services Agreement that secures the existing water supply for the Mountain House community. This agreement contains provisions that allow the MHCS D to wheel riparian water from the parcels north of Byron Road that maintain such rights, through the BBID raw water intake facilities and back to the MHCS D treatment plant for use on the subject parcels which possess the riparian rights. -Since the ability to wheel this additional water is contained in the agreement, and since the amount of riparian water exceeds the amount needed to offset the existing BBID supply, Specific Plan II areas possess a reliable water source.

Additional options to offset the possible shortfall of BBID water may still be pursued by the MHCS D as development occurs within Specific Plan II to further provide dependable options for water, including additional raw water from BBID, conservation, or use of recycled water north of Byron Road.

SP II Implementation Measures

1. **Annexation to BBID.** Annexation to BBID shall be required prior to the recordation of the Final Map for any area outside the boundaries of the BBID that will require delivery of BBID water for urban use as a specific condition of commencement of construction.
2. **Future Requirements.** If in the future, because of actions or conditions beyond the control of the County or the community, there is insufficient water for buildout of the community, then measures shall be undertaken to obtain an additional supply of water, to implement more extensive conservation measures, or to revise the Master Plan.

12.3 POTABLE WATER DEMAND

Master Plan Summary

To provide a safe, reliable and sufficient water supply for the community, the Master Plan directs that development within Mountain House will consume less water than in similar communities, and less than that assumed in current County standards.

Specific Plans subsequent to Specific Plan I will include a comparison of actual water demand for the community with the projected water demand used in the Master Plan. If water use specified in the Master Plan is exceeded for a previous Specific Plan, subsequent Specific Plans will specify additional actions that would be implemented to achieve adequate availability of water, with continued or additional water conservation

measures. In addition, the Master Plan will be revised, if necessary, prior to approval of a Specific Plan to reflect new projected water demand and revised infrastructure facilities to permit increased water usage. Further, Specific Plans will identify measures to be incorporated into the project to ensure that the demand would not exceed the confirmed supply.

Plan Description

The Master Plan required a comparison of actual annual water demand with projected water demand. At the time of writing of this Specific Plan, the MHCS D has determined that there is insufficient data to support modification of Master Plan assumptions for water demand. To date, there are approximately three hundred residents at Mountain House, most of whom have resided there for only a few months. Furthermore, initial water use is often higher than normal due to the need for above-normal use of irrigation during establishment of plant material in newly landscaped areas. Because the MHCS D does not yet have one adequate year's data, they plan to continue to use the factors utilized by the adopted Master Plan and MHCS D Infrastructure Master Plans.

Table 12.1: SPII Potable Water Demand shows the projected use of potable water required by the SPII land use program, using the Master Plan assumptions. Results indicate that, at buildout of SPII, the estimated annual potable is 5,302 acre-feet per year, assuming that the conservation measures discussed in the Master Plan are implemented. This is approximately 54% of the water demand for the buildout of the entire Master Plan area. The original potable water demands as allocated in the Master Plan for the SPII areas were 5,615 acre-feet per year (approximately 57% of the Master Plan area) assuming that the conservation measures discussed in the Master Plan are implemented. Since the SPII's demand is less than the originally allocated demand for the SPII Area (due to minor changes in the land use program), the water supply and demand has been adhered to as required in the Master Plan.

SPII Implementation Measures

1. **Water Demand. Water demand shall adhere to the water conservation requirements specified in Section 12.4: Water Conservation.**

MOUNTAIN HOUSE SPECIFIC PLAN II

Table 12.1 SPII Potable Water Demand				
LAND USE		Acres	Conservation Demand w/conservation w/o reclamation	
			Average Annual Water Use (AF/AC YR)	Total Annual Water Use (AF/YR)
NEIGHBORHOOD C				
RVL	Residential/Very Low (1-2)	4.2	1.3	5.5
RL	Residential/Low (3.75-4.5)	118.0	2.0	236.0
RM	Residential/Medium (5.7-7.0)	79.0	2.5	197.5
RMH	Residential/Medium High (12-14)	10.5	3.0	31.5
RH	Residential/High (18-20)	6.0	3.5	21.0
SUBTOTAL:		217.7		491.5
NEIGHBORHOOD D				
RL	Residential/Low (3.75-4.5)	44.0	2.0	88.0
RM	Residential/Medium (5.7-7.0)	72.0	2.5	180.0
RMH	Residential/Medium High (12-14)	13.6	3.0	40.8
SUBTOTAL:		129.6		308.8
NEIGHBORHOOD H				
RL	Residential/Low (3.75-4.5)	96.0	2.0	192.0
RM	Residential/Medium (5.7-7.0)	107.5	2.5	268.8
RMH	Residential/Medium High (12-14)	14.5	3.0	43.5
RMH	Senior Housing Residential/Mixed Use (12-14)	5.0	3.0	15.0
RH	Senior Housing Residential/High (18-20)	11.5	3.5	40.3
SUBTOTAL:		234.5		559.5
NEIGHBORHOOD I				
RVL	Residential/Very Low (1-2)	4.9	1.3	6.4
RL	Residential/Low (3.75-4.5)	145.4	2.0	290.8
RM	Residential/Medium (5.7-7.0)	91.2	2.5	228.0
RMH	Residential/Medium High (12-14)	15.4	3.0	46.2
SUBTOTAL:		256.9		571.4
NEIGHBORHOOD J				
RL	Residential/Low (3.75-4.5)	111.9	2.0	223.8
RM	Residential/Medium (5.7-7.0)	86.4	2.5	216.0
RMH	Residential/Medium High (12-14)	12.5	3.0	37.5
SUBTOTAL:		210.8		477.3
NEIGHBORHOOD K				
RL	Residential/Low (3.75-4.5)	89.0	2.0	178.0
RM	Residential/Medium (5.7-7.0)	69.1	2.5	172.8
RMH	Residential/Medium High (12-14)	20.0	3.0	60.0
RH	Residential/High (18-20)	4.0	3.5	14.0
SUBTOTAL:		182.1		424.8
NEIGHBORHOOD L				
RL	Residential/Low (3.75-4.5)	104.0	2.0	208.0
RM	Residential/Medium (5.7-7.0)	49.1	2.5	122.8
RMH	Residential/Medium High (12-14)	33.0	3.0	99.0
RH	Residential/High (18-20)	6.2	3.5	21.7
SUBTOTAL:		192.3		451.5

MOUNTAIN HOUSE SPECIFIC PLAN II

Table 12.1				
SPII Potable Water Demand				
LAND USE		Acres	Conservation Demand w/conservation w/o reclamation	
			Average Annual Water Use (AF/AC YR)	Total Annual Water Use (AF/YR)
OTHER LAND USES				
CN	Neighborhood Commercial	5.7	1.3	7.4
CC	Community Commercial	81.5	1.3	106.0
CG	General Commercial	29.2	1.3	38.0
CO	Office	4.0	1.3	5.2
MX	Mixed Use (Town Center)	39.1	2.0	78.2
MX	Mixed Use (Old River Center)	14.0	2.0	28.0
IL	Limited Industrial (N. of Bryon)	6.4	1.3	8.3
CR	Rec./Activity Center	23.0	1.3	29.9
CR	Golf Course	199.2	4.0	796.8
NP	Neighborhood Park	37.9	4.0	151.6
CP	Community Park	56.5	4.0	226.0
CP	MH Creek Community Park	31.7	0.5	15.9
RP	Regional Park	82.2	0.5	41.1
	OS (Lake)	104.0	3.7	379.6
	Dry Creek	13.0	0.5	6.5
OS	Water Quality/Detention Basin	17.2		
OS	Wetlands / Other OS	17.2		
OS	OS Buffer Areas	8.3	1.3	10.8
P	K-8	80.0	1.8	144.0
P	Transit	5.0	0.5	2.5
P	Public Facilities	16.5	0.5	8.3
P	Arterial Street R.O.W.	165.4	1.0	165.4
	SUBTOTAL:	1037.0		2249.3
GRAND TOTAL		2460.9		5534.0

MOUNTAIN HOUSE SPECIFIC PLAN II

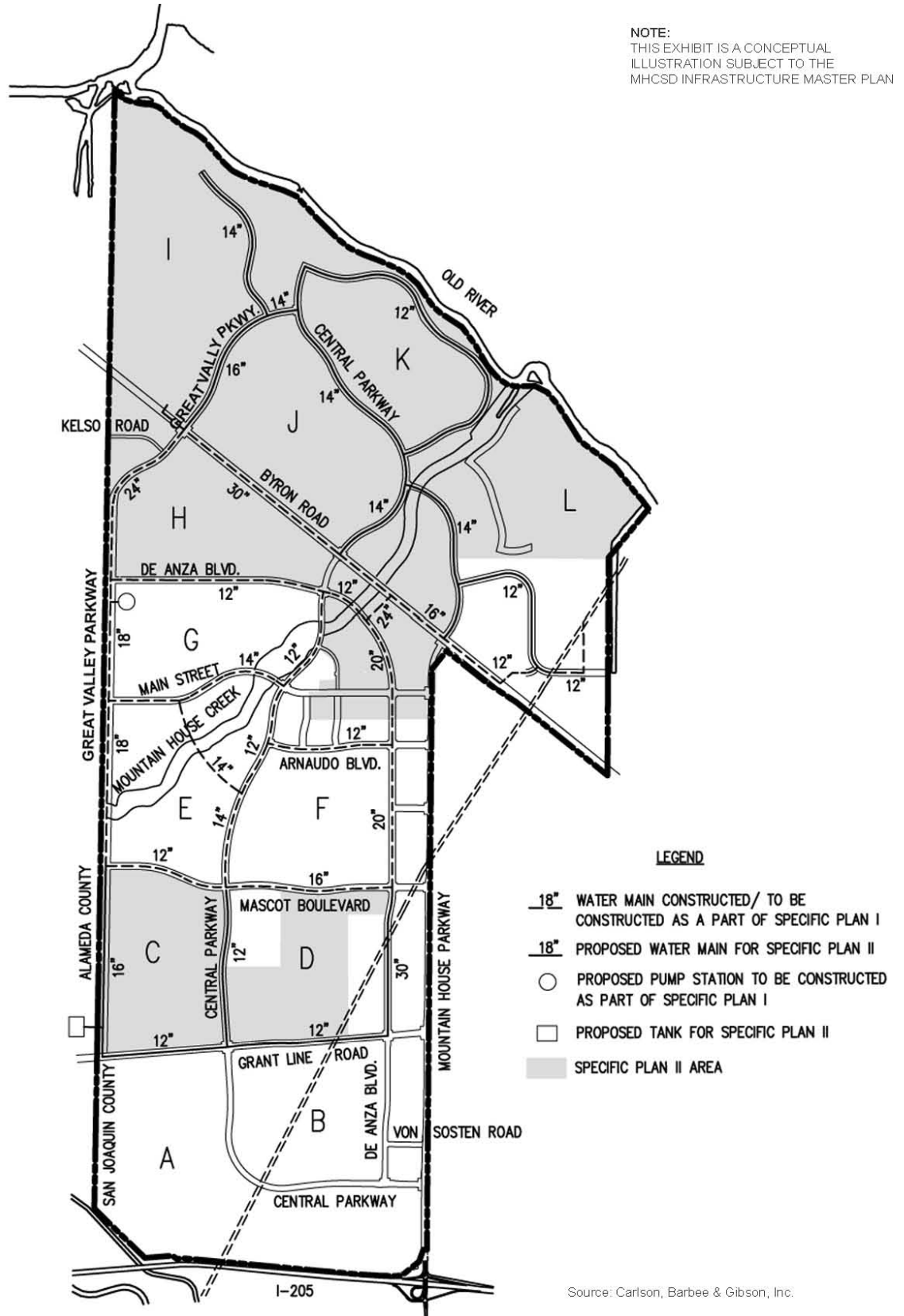


FIGURE 12.1 – SPII POTABLE WATER FACILITIES

12.4 WATER CONSERVATION

Master Plan Summary

To utilize the community's water supply efficiently, the Master Plan states that on-going water conservation will be encouraged by the MHCSD through public information and education programs and by requiring certain on-going water conservation measures. In addition, the best beneficial use of reclaimed water will be practiced.

The MHCSD has prepared a Water Conservation Ordinance No. 4056, which discusses requirements placed on the community to conserve water.

Plan Description

The MHCSD has adopted an Ordinance for Water Conservation and Water Shortage Emergencies. Implementing projects within SPII will be subject to the specific water conservation measures of this ordinance, which include:

- Restrictions on types and timing of exterior irrigation.
- Requirements for correction of leaks and malfunctions.
- Restrictions on the use of water for wasteful purposes.
- Provisions for water shortage emergencies.

SPII Implementation Measures

1. **Public Information.** The MHCSD shall inform the residents and patrons of the Mountain House community about the importance of water conservation and ways which water use can be reduced through the establishment of programs promoting the benefits of such water conservation.
2. **Conservation Measures.** The following conservation measures shall be required:
 - **Landscaping.** Low-water-using landscaping shall be incorporated into residential, school, commercial, industrial and other public areas within Mountain House.
 - **Pressure Regulation.** The Mountain House CSD shall require that all residential structures be fitted with a maximum pressure-regulating device.
 - **Water Conserving Appliances.** In addition to low flush toilets and showerheads as required by Title 24 of the California Code, the installation of water conserving appliances shall be encouraged by the MHCSD. The CSD will distribute literature on available water conserving appliances such as dish and clothes washers, and shall encourage or shall provide incentives for the installation of these appliances.
3. **MHCSD Water Conservation Requirements.** All implementing projects shall comply with the MHCSD Water Conservation Plan, Standards and Ordinance and the MHCSD Development Standards (Section 4: Water System Design Standards).

4. **MHCSD Water Infrastructure Master Plan. All implementing projects shall comply with the applicable provisions of the MHCSD Potable Water Master Plan and Development Standards (Section 4: Water System Design Standards).**

12.5 BBID SERVICE TO INTERIM AGRICULTURAL OPERATIONS

Master Plan Summary

The Master Plan requires that water service be maintained to lands outside Mountain House that are within the BBID service area, and that Mountain House provide permanent or interim facilities as needed, as each phase develops, that will assure continued service to BBID customers. Irrigation water service and drainage will be maintained to lands under agricultural use.

The appropriate Specific Plans will identify how water and drainage services to the land east of the project and Mountain House Parkway within the BBID service area would be affected. They will identify the infrastructure needed to maintain these services and when construction of these facilities would need to be completed (schedule may be expressed in terms of when certain parcels are developed).

Plan Description

Several BBID and private property-owned farm irrigation facilities traverse the Specific Plan II area. They include both BBID irrigation distribution canals and drainage conveyance pipelines and privately-owned distribution pipes and ditches, as well as surface run-off tailwater ditches. These tailwater ditches temporarily collect irrigation water run-off and detain the amounts of excess water prior to discharge into either farmer owned or BBID owned run-off conveyance lines. Water occurs in these ditches temporarily during the irrigation season.

Irrigation service to the subdivision site will be terminated from BBID delivery points and any BBID facilities will be removed, subject to BBID's approval. Subsequent improvement plans, which reflect this plan, will be reviewed with BBID and will be subject to their approval, as well as the approval of the MHCSD. Additional detailed information regarding farm irrigation is included in the Specific Plan II Farm Irrigation and Drainage Report.

An exception to this strategy is the disposition of BBID Canals 120 and 155 that traverse the southwestern portions of Neighborhood C. It is envisioned that Canals 120 and 155 will cease to be needed by customers in the BBID prior to development of Neighborhood C, such that the canals can be removed prior to the development of Neighborhood C. If these abandonments do not occur prior to the development of Neighborhood C, then both or either canal will be relocated to alignments that allow the Neighborhood to develop and allow the BBID to continue service to customers downstream.

The status of irrigation service canals is as follows:

Canal 70. Canal 70 is outside of the Specific Plan II boundary and will be relocated as a part of the Specific Plan I improvements.

Canal 120. The portion of Canal 120 running through the proposed Neighborhood C of Specific Plan II will be abandoned during the development of Neighborhood C. If Neighborhood C is developed before Neighborhoods A and B south of Grant Line Road, then the Canal 120 siphon under Grant Line Road will be plugged or

removed and the portion of Canal 120 south of Grant Line Road will act as a reservoir to be supplied with water from Canal 155 via a bypass pipe (retrofitted existing pipe or a new bypass pipe) between the two canals. Improvements to canal levees may be necessary. All work will be performed in accordance with BBID standards and specifications.

Canal 155. If Neighborhood C is developed before Neighborhoods A and B south of Grant Line Road, then a segment of Canal 155 in the southwest corner of Neighborhood C will require abandonment and rerouting via a pipe or other conveyance device under the future Great Valley Parkway, crossing Grant Line Road, and connecting to Canal 155 south of Grant Line Road. If Canal 155 is to supply water to Canal 120 via a bypass pipe, then improvements to canal levees and to the pumps supplying water to Canal 155 may be necessary. All work will be performed in accordance with BBID standards and specifications.

Lands East of Mountain House Parkway. Lands east of Mountain House Parkway that are currently supplied with irrigation water from BBID's Canal 155 have at least two possible options from continued irrigation service during and after development of Neighborhoods A and B. One option is to supply these lands with water from the BBID supply pipeline located at the northeast corner of the I-205 and Mountain House Parkway intersection. Alternatively, these lands could be supplied with irrigation water from the WSID canal located north and east of these lands.

SPII Implementation Measures

1. **Farmland Irrigation.** All implementing projects shall comply with the applicable requirements of the San Joaquin County Development Title including the requirement to perform detailed farmland irrigation conversion and impacts studies (see Section 9-857.2M: Requirements for Application, Major Subdivision).
2. **Relocation of Agricultural Service Canals.** All necessary easements required to relocate existing agricultural canals shall be secured prior to approval of final maps for the affected areas.

12.6 WATER TREATMENT PLANT

Master Plan Summary

The Mountain House water treatment plant, located within Neighborhood I, has been implemented according to Master Plan requirements to provide an adequate and safe potable water supply.

Plan Description

The first phase of the water treatment plant was constructed as part of the implementation of Specific Plan I, as permitted under the existing Use Permit granted by the County. This Use Permit was approved to address the entire buildout, in phases, of the water treatment plant facility and includes all requirements for the facility contained in the Community Approvals. Phased expansion of this facility will be required to serve the SPII lands within the community. Specific phases, as a function of the phasing of development within SPII, will be determined by the MHCSO.

The ultimate treatment and storage capacity of the treatment plant and related storage facilities is anticipated to be 20 mgd, expanded in phases, utilizing conventional treatment processes, consistent with MHCSD requirements. In addition, phased expansions to the initial constructed raw water pump station to expand the facility to its ultimate design capacity will occur in accordance with MHCSD requirements.

SPII is located within two potable water pressure zones as detailed in the MHCSD Potable Water System Update, dated August 2003. The existing water treatment plant will be expanded in phases per the MHCSD's requirements for the phased development within Zone 1 of SP II. Water storage tanks will be constructed in phases on the lands outside of the project's boundary for the phased development within Zone 2 of the SPII.

SPII Implementation Measures

1. **County Use Permit Requirements.** All applicable implementing projects shall comply with the applicable provisions of the existing San Joaquin County Use Permit for the Water Treatment Plant.
2. **MHCSD Treatment Plant Requirements.** All implementing projects shall comply with the applicable provisions of the MHCSD Potable Water Master Plan and Development Standards for provision of the required phased expansion of the 20mgd conventional treatment plant, and raw water pump station (Section 4: Water System Design Standards).
3. **State and Federal Standards.** All expansions of the Water Treatment Plant shall comply with the applicable State and Federal Drinking Water Standards.

12.7 WATER STORAGE

Master Plan Summary

The Master Plan requires that the Mountain House community be provided with adequate water storage facilities to ensure efficient system operation and "back up" supply in the event of an emergency or required system shutdown. Treated water storage facilities will be provided to hold the required amount of operational, emergency and fire storage for the community at the various stages of development and at buildout of the community.

Plan Description

As discussed previously, the first phase of the water treatment plant was constructed as part of the implementation of Specific Plan I, under approvals granted by the County as part of a Use Permit that addresses the full buildout, in phases, of the facility. In addition, the MHCSD has a Potable Water Master Plan that addresses the conveyance and supply system for the entire community. Both documents address the amount of potable water storage required to serve SPII. As part of the implementation of SPII, additional water storage facilities will need to be constructed on a phased basis to provide service for SPII.

As discussed in Section 12.6: Water Treatment Plant, there are two potable water pressure zones located within the SPII Area. Each zone will require additional water storage capacity as the project develops in phases. As addressed in the

County Use Permit and the MHCSD Potable Water Master Plan, additional storage tanks will need to be constructed at both the existing water treatment plant and at a remote storage tank site adjacent to the Community College within Specific Plan III, or at an alternative location west of the San Joaquin County line near the intersection of Great Valley Parkway and Grant Line Road, as depicted on Figure 12.1: SPII Potable Water Facilities. The specific phasing and sizing of these facilities will be determined by the MHCSD according to demand triggered by each phase of SPII.

SPII Implementation Measures

1. **Remote Sites.** In the event that remote sites are to be used in the future they will need to comply with the siting criteria provided in Section 12.10.
2. **Development Permits.** Development permits shall be required for water storage facilities located off of the water treatment plant site.
3. **Facilities Design.** Where feasible, storage facilities shall be designed in a manner that allows for phased construction.
4. **MHCSD Water Storage Requirements.** All implementing projects shall comply with the applicable provisions of the MHCSD Potable Water Master Plan, Development Standards (Section 4: Water System Design Standards), and Design Manual.

12.8 WATER DISTRIBUTION SYSTEM

Master Plan Summary

The Master Plan limits the area to be served by the water distribution system to the Mountain House community boundaries shown in the General Plan. The system will provide a reliable water distribution system that will provide optimum quality, a reasonable pressure range during maximum water demand periods, and adequate capacity to deliver water in cases of emergencies. It will be designed and constructed to assure a reliable and cost-effective water supply to the community.

The main water transmission pipelines will be provided as indicated by the Master Plan. Each Specific Plan will analyze the water treatment and transmission system to reaffirm the amount of facilities that will be needed, including storage, to adequately serve that particular phase.

Plan Description

SPII proposes a system of potable water backbone infrastructure that is consistent with the design requirements contained in the MHCSD Potable Water Master Plan. Specific alignments of many of the backbone lines located north of Byron Road have been modified from the original Master Plan to align with the new arterial roadway utility corridors, as depicted on Figures 3.1: SPII Land Use and Figure 9.1: SPII Roadway System. The backbone network will be phased according to the service and oversizing requirements of the MHCSD, and will expand upon the backbone network constructed as part of Specific Plan I.

As part of the preparation of SPII, the MHCSD has performed a confirmation analysis of the MHCSD Potable Water Master Plan based on the proposed SPII land use plan to address any possible modifications and variations required to provide the same level of service as described in the MHCSD's plan. This analysis

has resulted in some minor modifications to the specific alignments and sizing of some of the backbone facilities north of Byron Road, but no modifications south of Byron Road. Modifications proposed by SPII serve to maintain the same level of service but do not represent an increase in service from the Master Plan or the MHCSD Potable Water Master Plan.

Implementation of SPII will involve the incremental phasing of these backbone facilities to correspond to the specific phasing determined as part of implementing projects within the SPII Area, as determined by the MHCSD, consistent with their requirements and standards.

SPII Implementation Measures

1. **MHCSD Water System Piping Requirement.** To minimize the loading of heavy metal deposits in the MHCSD sewer treatment system, the MHCSD shall require that all water systems throughout the community, including all habitable structures, shall exclusively prohibit the use of metallic piping for all potable water conveyance and distribution systems on public and private properties and within structures. Exceptions can only be granted in instances where such use impossible or infeasible, as determined by the MHCSD.
2. **MHCSD Distribution System Requirements.** All implementing projects shall comply with the applicable provisions of the MHCSD Potable Water Master Plan.
3. **MHCSD Design and Construction Requirements.** All implementing projects shall comply with the applicable provisions of the MHCSD Development Standards (Section 4: Water System Design Standards).

12.9 SLUDGE DISPOSAL

Master Plan Summary

The Master Plan requires that the disposal of water treatment plant sludge does not adversely impact the community or the surrounding environment. Approvals of subsequent Specific Plans are contingent on the identification of means of water treatment sludge reuse/ application/disposal consistent with applicable local, state, and federal policies and regulations, and which minimizes landfill disposal. If landfill disposal were proposed, an agreement or “will serve” letter with a landfill that would accept the sludge for at least the next five years will be provided with the Specific Plan. If land spreading or dedicated land disposal is proposed, then guarantees of adequate acres for sludge disposal for at least the next five years must be provided.

Treated water storage may be located in several locations within the community if found beneficial after study and approval by the County; otherwise, it will all be located at the water treatment plant.

Plan Description

The MHCSD is responsible for implementing the requirements of both the Master Plan and the requirements of the County approved Use Permit for the Wastewater Treatment Facility. This Use Permit also contains specific requirements for the treatment and disposal of sludge material.

SPII does not propose any modifications to the existing policies and requirements.

SPII Implementation Measures

1. **Updates.** Provisions for sludge disposal shall be updated annually so that there are always firm provisions for disposal for at least five years into the future. Satisfaction of this sludge requirement for each development permit shall be accomplished by certification from the MHCSD.

12.10 SITING CRITERIA

Master Plan Summary

The Master Plan requires that water treatment facilities have minimal aesthetic or other impacts on surrounding areas. The plant and related facilities will be sited, designed and landscaped to avoid negative impacts on surrounding areas, especially residential neighborhoods and wetlands. All buildings and structures will be low profile to the greatest extent practical.

Plan Description

The implementation of SPII will involve the expansion of the existing water treatment plant constructed as part of Specific Plan I and the construction of booster pump stations, and may involve the construction of off-site storage tanks located in Alameda County near the intersection of Grant Line Road and Great Valley Parkway, just west of Neighborhood C (see Figure 12.1: SPII Potable Water Facilities).

The water treatment facility has already been permitted through full buildout of SPII through a Use Permit issued by the County. This Use Permit contains all applicable siting and screening requirements contained in the Community Approvals, most of which have already been installed at the plant facility. As expansions of the facility are designed and constructed, such facilities will be reviewed by the MHCSD and County for conformance with applicable Community Approval and Use Permit requirements. Booster pump facilities will be constructed as part of the implementation of SPII, and such facilities will be designed to comply with applicable Community Approval requirements.

The storage tank facility, which may be constructed as part of the implementation of SPII, will be designed and constructed in accordance with the requirements contained in the Community Approvals, specifically to minimize the visual and operational impacts of the facilities on adjacent areas of the Mountain House community. When this facility is designed, these issues will be addressed as part of the design, approval and construction process.

SPII Implementation Measures

1. **MHCSD Facility Design and Construction Requirements.** All implementing projects shall comply with the applicable provisions of the MHCSD Development Standards (Section 4: Water System Design Standards) and Potable Water Master Plan.
2. **Pump Stations.** Booster pump stations shall be located to conceal these facilities from public streets. Such facilities shall be fenced or otherwise enclosed with a masonry fence or structure in order to mitigate visual and/or noise impacts. The facility shall be landscaped

and maintained in such a manner that will be compatible with the adjacent land uses.

3. **Water Storage Tanks.** Water storage tanks shall be designed to minimize, as much as possible, the adverse visual and noise impacts on the adjacent community. The color of the storage tank shall be such as to minimize the visual impact on the adjacent land uses. Colors selected shall be generally neutral that will allow the facility to blend in with the visual character of the neighborhood. Landscaping, especially trees, shall be used to visually buffer the storage tank. Security lighting shall be designed to minimize light impacts on adjoining properties.

Water storage facilities shall be:

- Located at the highest available point relative to their pressure zone.
 - Constructed with the lowest profile consistent with sound economical engineering practices. Tanks shall be depressed below ground level as much as possible.
 - Constructed to provide for Public Safety in the event of rupture.
 - Screened from view to the greatest extent possible using a combination of grading, fencing, landscaping, walls, and tank color.
4. **Water Storage Tanks Outside San Joaquin County.** Water tank facilities locate outside of San Joaquin County shall comply with applicable jurisdiction of land use and building regulations, and shall comply with applicable legal requirements of the Californian Endangered Species Act, Federal Endangered Species Act, MBTA and the California Department of Fish and Game Code.

12.11 REGULATORY REQUIREMENTS AND PERMITS

Master Plan Summary

The Master Plan requires that the Mountain House water supply system meet all regulatory requirements set forth in Titles 17 and 22 of the California Code of Regulations, Chapter 7 of the California Health and Safety Code entitled, "California Safe Drinking Water Act" and the applicable sections of the Uniform Fire Code.

To obtain the initial operating permit, an application was prepared and submitted to DHS, and a technical report was prepared discussing the water system, including the following:

- Detailed plans and specifications for the proposed system;
- Water quality information;
- Description of the proposed system.

Plan Description

Although most of the primary raw water and water treatment facilities have been designed and constructed, there will be phased expansions to the water treatment plant that will be subject to ongoing review and approval by the State Department of Health Services. The MHCSD, as the owner, operator and permit holder of this facility, will work closely with the State to ensure compliance with all applicable regulations as part of each expansion project.

SPII Implementation Measures

1. **On-going Permit Maintenance and Compliance.** The MHCSD, as part of the existing permits to operate the water treatment plant, will coordinate with the State Department of Health Services to ensure that phased expansions of the Water Treatment Plant are in compliance with the design and operational requirements of the State.

12.12 CAPITAL FACILITY COST AND PHASING

Master Plan Summary

The Master Plan assumes that the water treatment plant will be phased in components equal to 25% of the total facility, with one component in place at the start of each phase of development.

The first component was in place as of 2002. Storage tanks are assumed to be phased in three increments after the first Specific Plan. Storage ponds, pumps, and other items will be provided in smaller increments.

Plan Description

As part of the implementation of SPII, phased construction of the water treatment plant will be administered by the MHCSD to ensure that adequate facilities are in place with each incremental phase of development.

SPII Implementation Measures

1. **Cost and Phasing Requirements.** All implementing projects shall comply with the applicable requirements of the Public Financing Plan and Technical Report, Master Acquisition and Reimbursement Agreement between the MHCSD and Trimark Communities, Master Plan Development Agreement between San Joaquin County and the Master Developer, MHCSD Capital Improvement Program, and applicable development fee Ordinances.