# CHAPTER FIFTEEN: STORM DRAINAGE AND FLOOD PROTECTION

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## CHAPTER FIFTEEN: STORM DRAINAGE AND FLOOD PROTECTION

## 15.1 INTRODUCTION

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

The analysis and preliminary design of the storm drain collection system are based on the MHCSD Development Standards and the Municipal and Industrial/Commercial California Storm Water Best Management Practice Handbooks. The watershed and primary storm drain facilities are analyzed using the United States Army Corps of Engineers rainfall/runoff model HEC-1.

All storm drainage, flood protection and terminal discharge improvements necessary for each development phase will be approved by the MHCSD, with applicable review and approval as necessary by San Joaquin County Flood Control, and any State or Federal Agency having jurisdiction over any of the improvements.

MHCSD may elect to construct improvements, update any plan including the Master Plan or any Specific Plan, or require that a developer construct improvements or create/reuse drainage plans.

## 15.2 OFF-SITE WATERSHEDS

#### Master Plan Summary

To the southwest of Mountain House are several watersheds that drain through the community. The Master Plan requires that drainage from these off-site watersheds is considered in the design of the community storm system and is safely conveyed through the community.

Adequate storm conveyance systems will be provided to ensure that all off-site drainage from watersheds will be safely conveyed to terminal drains. Off-site drainage may be merged with urban runoff as a means of conveyance to terminal drains providing that the urban runoff has been treated according to Best Management Practices (BMP) as provided for by applicable water quality control regulations.

Detailed studies for each watershed area will be prepared and utilized in the design of each segment of storm facilities required for each Specific Plan, and will be completed and approved prior to the approval of Specific Plans.

#### **Plan Description**

Neighboring offsite watersheds have been defined previously by the Master Plan and the MHCSD Storm Water Master Plan. The definitions of these watersheds contained in these documents have been reviewed and certified by the MHCSD as still valid for utilization as the basis for all off-site watershed and on-site conveyance systems. These various watersheds are currently assumed to be undeveloped and, therefore, do not require BMPs prior to entering into and conveyance through the Mountain House Community. If development occurs outside Mountain House, the MHCSD will work with permitting agencies with jurisdiction over these projects to require BMP's prior to releasing runoff from such projects which may enter into the Mountain House community and into the proposed storm drain system as described in the Mountain House Storm Water Master Plan Update.

#### **SPII Implementation Measures**

- 1. <u>MHCSD Coordination with other Agencies</u>. The MHCSD shall coordinate with other agencies which have permitting jurisdiction over future projects located within the Mountain House off-site watershed areas, to ensure that such projects properly control the volume, velocity and quality of run-off so that the watershed characteristics designed into the Mountain House storm drain system are not modified by such upstream projects.
- 2. <u>MHCSD Design and Construction Requirements</u>. All implementing projects shall comply with the applicable provisions of the MHCSD Storm Water Master Plan Update and Development Standards (Section 3 Storm Drainage Design Standards).
- 3. <u>Streambed Protection</u>. Erosion shall be minimized by using appropriate streambed protection energy dissipators at transitions from supercritical to subcritical flow, at the confluence of channels, at the downstream location of culverts, and at channel transitions. Streambed protection shall be provided by planting appropriate species of plants. Streambed is defined in this application as the constructed floodplains and channels and does not include existing creekbeds that will not be disturbed.
- 4. <u>Phasing of Improvements</u>. Each segment of the storm drainage system shall be designed as needed to provide protection for each phase of development.

#### 15.3 PRIMARY STORM DRAIN COLLECTION SYSTEM

#### Master Plan Summary

The primary storm drainage system at Mountain House provides for the conveyance of all off-site and on-site precipitation, plus any urban runoff, to the Old River as a terminal drain. The primary storm drain collection system includes trunk storm drain pipes (72 inch and larger), major open-channels, and detention basins.

The Master Plan requires that on-site and off-site drainage generated by precipitation and urban run-off be jointly considered and conveyed safely through the community. On-site drainage will not impact property owners adjacent or within the community, or downstream property owners. Discharge of sediments to creeks, ditches and Old River will be minimized.

Pipes and/or open-channels will be designed with 100-year flood capacity to a point of terminal discharge. Trunk line pipes (72 inch and larger), detention basins, and major open-channels will be designed and constructed to transport the 100-year volumetric flow rate. Trunk line pipes will be designed for gravity flow conditions. Open-channels will be designed to meet the most conservative freeboard requirements of Federal, State, or County standards, and will be designed to minimize erosion, and sediment generated by grading or construction activities will be subject to BMPs prior to discharge to creeks, ditches and Old River.

Erosion will be minimized by designing and constructing open-channels to convey storm water runoff at or below the allowable maximum velocity, and by using appropriate streambed protection and/or energy dissipators at transitions from supercritical to subcritical flow, at the confluence of channels, at the downstream location of culverts, and at channel transitions. Streambed protection will include appropriate species of plants.

The ultimate point of terminal discharge for all drainage will be Old River. Terminal discharge may occur by either gravity flow and/or pumped flow.

Future flows will be metered to pre-development rates. The location and design of detention ponds will provide for adequate access to the basins for maintenance. The inlet structure of detention ponds will be designed and constructed to reduce the velocity of the incoming water to levels that minimize erosion. The inflow channel for a dry detention basin will be designed and constructed to prevent erosion, which may include but not be limited to a concrete low-flow channel or riprap. The inflow channel will continue to the outlet of a dry detention basin or to the edge of a lower stage of the basin that is always submerged.

#### **Plan Description**

As described in the MHCSD Mountain House Storm Water Master Plan, the watershed areas in SP II are directed into proposed primary, secondary storm drain trunk lines, and BMPs (see Figure 15.1: SPII Storm Drainage System). Storm drain facilities have been sized for the 100-year storm event. (See Section 15.7: Flood Protection for information on flood control).

The layout of the SPII primary drainage facilities will allow storm water treatment of first flush flow in BMPs to discharge into Mountain House Creek, prior to ultimately flowing into Old River.

Flows are directed to BMPs for treatment of first flush flows (first ½" of rainfall). Runoff is routed by storm drain facilities to BMPs along Mountain House Creek, which include wet/dry basin/BMP systems, and golf course/lake BMP systems located in neighborhoods north of Byron Road.

Runoff from Neighborhood D (Watershed 12, Watershed 23, and a portion of Watershed 18) are conveyed by a combination of street flow and storm drain trunk lines along De Anza Boulevard. All storm drain lines are combined near Mountain House Creek at Byron Road through existing pipe systems constructed as part of Specific Plan I into existing Water Quality Basin WQB-1.

Neighborhood C runoff (Watershed 10) will be routed via street flow and storm drain trunk line along Central Parkway constructed as part of Specific Plan I, and routed into existing BMPs prior to being discharged into Mountain House Creek.

First flush flow from Neighborhood H (Watershed 29 and a portion of Watershed 28) will be conveyed by street flow and a storm drain system crossing under Byron Road into the proposed golf course/ BMPs (Neighborhood J) and lake/BMP (Neighborhood K) systems prior to discharging into Mountain House Creek. Storm events greater than first flush runoff from Neighborhood H (Watersheds 28 & 29) will be conveyed by a storm drain system that will discharge into Mountain House Creek, near its intersection with Byron Road.

Storm runoff, including first flush flow from the easterly portion of Neighborhood H (Watershed 28), adjacent to Central Parkway will be conveyed by street flow and a storm drain system into BMPs along Mountain House Creek.

Runoff from Neighborhoods I and J will be conveyed by street flow and storm drain facilities into BMPs within the proposed golf course before being routed to the lake/BMP system within Neighborhood K.

Runoff from Neighborhood I will be routed through the golf course BMPs to a pair of detention basins, one on each side of Dry Creek near its terminus. The two basins will be interconnected by a pipeline crossing Dry Creek. Runoff in excess of the capacity of the basins will be pumped to the lake/BMP system within Neighborhood K.

Runoff from Neighborhood J will be routed through the golf course BMPs and will discharge directly to the lake/BMP system within Neighborhood K.

Runoff from the lake residential community consisting of Neighborhood K (Watersheds 37 and 39) will be conveyed by street surface flow and/or storm drain facilities into the lake/BMP system prior to being routed into Mountain House Creek and ultimately discharging into Old River. Runoff from Neighborhood L (Watersheds 40 to 42, 57, and 58) will be conveyed by surface flow and/or storm drain facilities into a lake/BMP system prior to being routed to Mountain House Creek. In Neighborhoods K and L, rainfall exceeding the 100-year storm event will pass a lake overflow facility and subsequently flows into Mountain House Creek. Conceptual lake edge conditions are illustrated by Figure 15.2.

Offsite flows that have historically drained into the Dry Creek wetlands and jurisdictional channel (Watershed 43) will continue to be conveyed in the same manner. During storm events that are greater than a ten-year event, stormwater conveyed in the Dry Creek facility in excess of the downstream channel's detention capacity will be diverted at a point north of the Golf Club House (CP43) to Mountain House Creek via the lake system in Neighborhood K. No flows from the urbanized area within Mountain House will be allowed to discharge into the Dry Creek wetlands or jurisdictional areas.

#### **SPII Implementation Measures**

- 1. <u>MHCSD Design and Construction Requirements</u>. All implementing public improvement projects shall comply with the applicable provisions of the:
  - a. MHCSD Development Standards, Section 2: Street Design Standards and Section 3: Storm Drainage Design Standards.
  - b. Mountain House Storm Water Master Plan Update.
  - c. Manual for Best Management Practices.
  - d. MHCSD Design Manual, Chapter Three: Streetscapes.
- 2. Applicable creek restoration or modification projects shall comply with the applicable provisions of the Federal Clean Water Act and the California Fish and Game Code.

#### 15.4 SECONDARY STORM DRAIN COLLECTION SYSTEM

#### Master Plan Summary

The secondary storm drain collection system is primarily located within the local and collector streets and consists of gutters, local drain swales, minor channels, catch basins, catch basin laterals, and underground pipes. These facilities transport on-site drainage to trunk lines, detention basins, retention basins, or terminal drains.

The Master Plan requires that on-site drainage occurring over the community be safely conveyed by the secondary storm drain collection system to the primary storm drain collection system. The secondary storm drain collection system will be used to collect and convey on-site drainage to the primary storm system safely with adequate flood protection.

The design and construction of the secondary storm drain collection system will be based on the 10-year storm event.

## Plan Description

The secondary drainage system within Specific Plan II consists of private property BMP site collection and conveyance facilities, and localized drain swales, street gutters, catch basins, inlets, and collection pipe facilities, constructed within collector and local streets within each area of Specific Plan II. These secondary systems are the localized facilities that convey flow to the primary networked described previously. These facilities and standards are controlled by the MHCSD Development Standards and Manual for Best Management Practices, and will be designed, approved and constructed as part of every implementing project.

#### **SPII Implementation Measures**

- 1. <u>MHCSD Design and Construction Requirements</u>. All implementing public improvement projects shall comply with the applicable provisions of the:
  - a. MHCSD Development Standards, Section 2: Street Design Standards and Section 3: Storm Drainage Design Standards.
  - b. Mountain House Storm Water Master Plan Update.
  - c. Manual for Best Management Practices.
  - d. MHCSD Design Manual, Chapter Three: Streetscapes.







## FIGURE 15.2 – CONCEPTUAL LAKE EDGE SECTIONS

## 15.5 MOUNTAIN HOUSE AND DRY CREEK IMPROVEMENTS

#### **Master Plan Summary**

The Master Plan requires that Mountain House Creek be developed as a multi-use corridor for conveyance of off-site and on-site drainage through the community and for a wildlife habitat and recreation corridor (see Chapter Seven for recreational and park requirements). Mountain House Creek will be used as an open channel to convey off-site and on-site drainage through the community with adequate flood protection. The creek will discharge into Old River, but the deposition of sediment into the river will be minimized by causing sediment deposition to occur in the Mountain House Creek channel. Mountain House Creek will be designed to minimize erosion, and existing wetlands within the creek will be preserved.

## **Plan Description**

Mountain House Creek, constructed as part of Specific Plan I, was designed and constructed according to the design criteria contained within the Community Approvals, as well as a Nationwide 27 Permit under the Federal Clean Water Act, by the US Army Corp of Engineers. These improvements were sized to convey the 100 year storm event, and were sized to accommodate the most conservative storm runoff resulting from a sudden and complete failure of both earthen dams located upstream of Specific Plan I, in Alameda County. Therefore, no modifications to the existing earthen dams are needed at this time.

The ultimate low-flow, riparian zone and 100 year storm improvements for Mountain House Creek within Specific Plan II, north of Neighborhood G, were also constructed in accordance with all applicable Community Approvals and the Nationwide 27 Permit from the US Army Corp of Engineers, during the development of Specific Plan I; therefore, no additional storm improvements within the Creek corridor itself are need for Specific Plan II, with the exception of localized drainage connections and BMP basins outside of the jurisdictional limits of the low flow area. These facilities will be constructed on a phased basis as needed to serve individual phases of development contained within Specific Plan II.

The portions of the Dry Creek conveyance that are subject to regulatory jurisdiction will be left undisturbed and will convey existing offsite flows from south of Byron Road to Old River. Runoff from undeveloped Community Commercial portion of Neighborhood H (watershed 31) will also discharge into the Dry Creek facility until such time as that property is developed. Discharges or runoff from the urbanized area of Mountain House will not be allowed to enter the Dry Creek system. Stormwater from the Dry Creek conveyance will be discharged in a manner consistent with historical practices by pumping the flows to Old River. The existing pump facility at the terminus of Dry Creek may be rebuilt within its current specifications, however the existing flow rate being discharged to Old River will not be increased.

## **SPII Implementation Measures**

- 1. <u>MHCSD Design and Programming Requirements</u>. All implementing public improvement projects shall comply with the applicable provisions of the MHCSD Design Manual and Parks Recreation and Leisure Plan, as amended.
- 2. <u>MHCSD Design and Construction Requirements</u>. All implementing projects shall comply with the applicable provisions of the MHCSD

Development Standards (Section 3: Storm Drainage Design Standards).

- 3. <u>MHCSD Drainage Requirements</u>. All implementing projects shall comply with the applicable provisions of the MHCSD Storm Water Master Plan Update.
- 4. <u>Creek Improvements</u>. Improvements to Mountain House shall be constructed on a phased as-needed basis in accordance with MHCSD drainage standards. Such improvements and phasing shall be coordinated with the Mountain House Creek and Dry Creek provisions contained within Chapter Seven of Specific Plan II.
- 5. <u>Clean Water Act Requirements</u>. The creek improvement plans and construction shall comply with the applicable requirements of the Clean Water Act.
- 6. <u>Streambed Alteration Agreement</u>. If required, prior to construction affecting any portion of the Mountain House and Dry Creek, the applicant shall apply for and comply with a Streambed Alteration Agreement (1603 Agreement) issued by the California Department of Fish and Game.

## 15.6 BEST MANAGEMENT PRACTICES (BMP'S)

## Master Plan Summary

The Master Plan requires that the storm drain system be designed to reduce the quantity of storm water pollutants as close to the point of origin as possible, and to incorporate cost effective Best Management Practices (BMP) treatment processes. To this end, site specific and regional treatment BMPs will be incorporated into the design of all improvements including all structures and infrastructure.

## **Plan Description**

Community-serving BMPs are incorporated along Mountain House Creek and the golf course to allow for stormwater treatment prior to discharge to the low flow areas of Mountain House Creek. BMP methods include dry/wet BMPs, golf course/BMPs and lake system/ BMPs of urban runoff. Runoff from Neighborhoods C & D will be directed to Mountain House Creek BMPs or Water Quality Basin #1. Runoff from Neighborhood H, I and J will utilize golf course BMPs. Runoff from Neighborhoods K and L are directed into the lake/BMPs systems incorporated into the lake residential community for treatment prior to discharging into Mountain House Creek.

In addition, per the requirements of the MHCSD's Storm Water Master Plan, Manual for Best Management Practices and applicable ordinances, all private property runoff from non-residential areas will be pretreated on-site prior to discharge into the MHCSD public storm water collection system. All such non-residential users will be required to demonstrate compliance with all applicable MHCSD requirements as part of building permit issuance.

## **SPII Implementation Measures**

1. <u>MHCSD Design and Construction Requirements</u>. All implementing projects shall comply with the applicable provisions of the MHCSD Development Standards (Section 3: Storm Drainage Design Standards).

- 2. <u>MHCSD BMP Requirements</u>. All implementing projects shall comply with the applicable provisions of the MHCSD Storm Water Master Plan Update and Manual for Best Management Practices.
- 3. <u>Material Management Plans</u>. A material management plan for each business with potential pollutants shall be approved by the MHCSD prior to the issuance of building permits for commercial or industrial uses to control the use, storage and disposal of chemicals that could pollute runoff.
- 4. <u>Illicit Connections</u>. An illicit connection regulation shall be enforced by the MHCSD to prevent connections to the storm drainage system that discharge material except rainfall runoff into the drainage system.

## 15.7 FLOOD PROTECTION

## Master Plan Summary

The Master Plan requires that the entire Mountain House community be protected from a 100-year flood. California Senate Bill 5 requires the entire Mountain House Community to be protected from a 200-yer flood event. On-site dams, levees, and berms protecting the County and the Mountain House community from flooding will be monitored by the CSD to identify potential problems.

Areas subject to flooding from Old River shall be protected from a 100-year FEMA flooding and California Senate Bill 5 (SB 5), 200-year flood event through filling of areas directly behind the existing levee in a gradual fill-back to the limits of the existing FEMA designation and as required by SB 5. Proposed lake areas, and open space areas within the neighborhoods north of Byron Road shall be lowered to continue to provide storm conveyance and storage as required in the MHCSD Storm Water Master Plan. Development areas behind the top of the fill area contained within the Old River Regional Park boundary would then drain away from the river, back into secondary and primary collection systems within each Neighborhood, and ultimately to Old River via Mountain House Creek.

Boat speed limits to reduce the generation of potentially damaging boat wakes will be established and enforced by the San Joaquin County Sheriff's Department, Boating Safety Division, in conjunction with other Delta area law enforcement agencies.

## Plan Description

Specific Plan II provides for 100-year and 200-year flood protection from floods within Old River through the filling of areas directly behind the existing levee in a gradual fill-back to the limits of the existing FEMA designation and those flood elevation requirements specified by SB 5 (200-year flood protection) (see Figure 15.1: SPII Storm Drainage System, Figure 15.3A: Existing Flood Hazard Zones FEMA 100-year, Figure 15.3B: Existing Flood Hazard Zones SB 5 200-year and Figure 15.4: North Area Grading Sections). Stabilization of the existing levee will be employed as necessary to protect the Old River Regional Park area. The grading approach involves the following:

- Material from the upper elevation areas along Byron Road will be cut and used as fill in the lower elevation areas along Old River as described in the Conditional Letter of Map Revision issued by FEMA.
- The existing levee will be graded and reinforced to meet FEMA certification requirements for park use, if any.

- Residential building pads along Old River will range from elevation 13.2 to 16 feet (instead of 6.5 to 12 feet as envisioned by the Master Plan).
- Proposed lake and open space areas within the Neighborhoods north of Byron Road would be lowered to continue to provide storm conveyance and storage as required in the MHCSD Storm Water Master Plan.
- Development areas behind the top of the fill area contained within the Old River Regional Park boundary will drain away from the river, back into secondary and primary collection systems within each Neighborhood, and ultimately to Old River via Mountain House Creek.
- Lakes/open space areas within Neighborhood K and L will be utilized for water quality treatment and flood storage. Gravity flow and discharge to Mountain House Creek will be through flap gates, eliminating the need for pumps as envisioned by the Master Plan.

#### **SPII Implementation Measures**

- 1. <u>MHCSD Design and Construction Requirements</u>. All implementing projects shall comply with the applicable provisions of the MHCSD Development Standards.
- 2. <u>MHCSD Flood Protection Requirements</u>. All implementing projects shall comply with the applicable provisions of the MHCSD Storm Drainage Master Plan.
- 3. <u>FEMA Application</u>. After the new river flood protection improvements are constructed along Old River, an application shall be made to the Federal Emergency Management Agency to change the flood insurance maps.
- 4. <u>Amendments to MHCSD Design Manual</u>. The MHCSD Design Manual shall be revised to be consistent with all provisions of this Specific Plan related to grading and flood control along Old River.
- 5. SB 5 200-Year Flood Protection. For a building permit for any new residence in the identified SB 5 area, the finished floor elevation shall be no greater than 3 feet below the 200-year Urban Level of Flood Protection (ULOP) surface elevation as identified in the PBI/R&F mapping shown as Figure 15.3B.



## FIGURE 15.3 – EXISTING FLOOD HAZARD ZONES





60						60
Existing Leeve					RR	40
-Regional Park			OS	RMH OS RMH	Existing Water Byron	40
20	DM	RL	Mt House	J	Quality Basin	20
Old River	Existing Grade KM	Street	Parkway			0
-20	Lake/Open Space					-20

SECTION B-B

# FIGURE 15.4 – NORTH AREA GRADING SECTIONS

## 15.8 SITING CRITERIA

#### Master Plan Summary

The Master Plan requires that drainage facilities be sited to perform efficiently while minimizing visual, safety, or other impacts. Storm drainage retention/detention ponds will be located in such a manner, by incorporating into golf course water hazards and parks, as to minimize the visual impact on the adjacent community.

#### Plan Description

All exposed drainage facilities (those not contained within underground pipes) will be designed and constructed, as practicable, in a naturalized appearance so as to avoid the need for specific screening criteria. All SPII facilities will be located either within the Mountain House Creek corridor, golf corridors or lake facilities as naturalized components of the facility terrain. Naturalization techniques will include contour grading, gradual side slopes where feasible, and native landscape plantings.

#### **SPII Implementation Measures**

- 1. <u>MHCSD Design and Construction Requirements</u>. All implementing projects shall comply with the applicable provisions of the MHCSD Development Standards (Section 3: Storm Drainage Design Standards).
- 2. <u>MHCSD BMP Requirements</u>. All implementing projects shall comply with the applicable provisions of the MHCSD Storm Water Master Plan Update and Manual for Best Management Practices.

## 15.9 PHASING AND COSTS

## Master Plan Summary

Construction between Mascot Drive and Grant Line Road will require a second trunk pipeline running under Mountain House Parkway north across the railroad tracks to BMP ponds in the golf course fairways. If golf course development is not ready to proceed, temporary BMP ponds would have to be constructed. Construction south of Grant Line Road will require a trunk pipeline running north to Mascot Boulevard and an open channel from Mascot to Old River.

The three storm lines discussed above are independent of each other and can be built in any order; they are, however, projected to be built in the order presented, approximately five years apart. The main consideration will be the timing of construction of Mountain House Parkway, as coordinated planning will save tearing up new roadways to lay pipe.

Mountain House Creek flood improvements will be constructed as specified in the Mountain House Creek Corridor Plan, in a sequence that allows for proper storm water conveyance and flood protection. Construction of river flood protection improvements will be phased to provide logical flood protection and construction sequencing.

## **Plan Description**

The phasing and sequence of construction of flood control and protection improvements, including the primary and secondary systems and flood protection

systems, will be staged to ensure that each implementing phase of the Specific Plan II area will be protected from flooding events in accordance with MHCSD requirements, and to ensure that flood conditions on adjacent properties are not worsened as a result of development. All phasing and construction plans will be reviewed and approved by the MHCSD in accordance with all applicable standards and requirements.

The Mountain House Creek flood control improvements have previously been constructed as part of the development of Specific Plan I, including the outfall into Old River.

Improvements to the existing levee and within the FEMA flood zone, to remove developing portions from the flood zone, will be phased as necessary to provide flood protection from any given phase north of Byron Road. Specific phasing and improvements plans will be approved by the MHCSD prior to processing of changes to the flood insurance rate maps with FEMA.

## **SPII Implementation Measures**

- 1. <u>Phasing and Costs</u>. 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.
- 2. <u>Flood Protection Phasing Plans</u>. Specific flood control phasing and improvement plans for areas contained within the FEMA 100 year flood areas, shall be approved by the MHCSD prior to processing of permits to amend FEMA Maps.

## 15.10 OPERATIONS AND MAINTENANCE

## Master Plan Summary

Storm drainage and flood protection facilities will be maintained by the MHCSD. A channel maintenance plan will be prepared prior to the submittal of the first development permit and will include a program to monitor sedimentation buildup for Mountain House Creek and drainage channels. Maintenance personnel, vehicles, and equipment may be shared with other facility maintenance crews to achieve staffing efficiency and cost reductions. These maintenance costs have been incorporated in the fiscal analysis presented in the PFP.

## **SPII Implementation Measures**

1. <u>Operations and Maintenance</u>. 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.