

INITIAL STUDY

FOR THE

IMPLEMENTATION OF STORM WATER

AND

IMPORTED WATER RECHARGE AT

20 RECHARGE BASINS IN CHINO BASIN

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A. INTRODUCTION AND BACKGROUND

In July 2000, the Inland Empire Utilities Agency certified a Program Environmental Impact Report (PEIR) and approved the Optimum Basin Management Program (OBMP). The OBMP addresses water quality and water supply issues in the Chino Groundwater Basin (Basin) and provides a framework for developing a cooperative groundwater management program among agencies which use, manage or regulate water resources in the Basin. The OBMP consists of recommended studies, programs and facilities to further the objective of developing cost-effective local reliable potable water supplies while enhancing and protecting the yield and quality of the Basin groundwater aquifers and downstream uses.

The Inland Empire Utilities Agency (IEUA or Agency) is one of the water management agencies located within the Basin and was the California Environmental Quality Act (CEQA) lead agency for preparation of the OBMP PEIR. On behalf of several water management agencies, IEUA has agreed to serve as the lead agency for the proposed project that will implement storm water and imported water recharge, and related infrastructure improvements, for 20 recharge basins located within the Chino Basin. In addition to IEUA, the agencies that will be implementing the proposed recharge basin improvements and operations include: Chino Basin Water Conservation District (CBWCD) and San Bernardino County Flood Control District (SBCFCD or District). Planning and funding support for this project is also being provided by the Chino Basin Watermaster (Watermaster). For purposes of this specific project, these agencies have agreed to allow IEUA to serve as the CEQA lead agency for review and approval of this environmental documentation. Also, for the purposes of this project, the proposed recharge projects are considered to be follow-on actions, or second tier projects (see Section 15152 of the State CEQA Guidelines), which relate to the OBMP and fall within the scope of the PEIR certified by IEUA in July 2000.

The participants in this project (IEUA, SBFCD, CBWCD and Watermaster) have identified the following recharge basins (the terms “recharge” and “spreading” basins will be used interchangeably in this document) for improvements and operational changes designed to meet the OBMP objectives:

Brooks Street Basin	Montclair Basins	7 th & 8 th Street Basins
Upland Basin	Ely Basins	Etiwanda Spreading Basins
Hickory Basin	Lower Day Basin	San Sevaine Basins 1-3
Turner Basin No. 1	Turner Basins 2, 3 and 4	San Sevaine Basins 4 and 5
Victoria Basin	Banana Basin	Declez Basin
Etiwanda Conservation Ponds	Jurupa Basins	Wineville Basin
College Heights Basins	RP-3 Basin	

Each of these basins and the proposed modifications to the basins and to operations will be discussed in detail below. However, certain key general or background issues related to the proposed improvement of the recharge basins and to the program to construct these improvements require explanation. The proposed recharge basin improvements can be traced to the OBMP. Goal 1 of the OBMP is to “Enhance Basin Water Supplies.” To increase Basin safe yield, future actions identified include locating recharge facilities throughout the Basin, when recovery of recharged water can be ensured (Goal 1a, OBMP). This goal includes developing a plan to enhance storm water recharge (Goal 1b, OBMP) and developing facilities to increase storm water recharge, including storm water recharge at existing and future flood control facilities. Although the focus in the OBMP is on storm water recharge, the OBMP also includes program elements to increase recharge of imported water to enhance the Basin’s safe yield. This Initial Study examines only the proposed recharge of storm water and imported water. It does not include an evaluation of recharge of recycled water, which is not being proposed or considered for implementation at this time.

In accordance with the OBMP, the Watermaster contracted Black & Veatch and Wildermuth Environmental, Inc., to develop a “Recharge Master Plan” as part of Phase II (implementation) of the OBMP. Although still in draft form, much of the information in the Master Plan has been made available by the Watermaster for use in preparing this Initial Study. Under the Watermaster’s guidance, the Phase II Recharge Master Plan translates the broad scope objectives identified in the OBMP into a specific recharge program that was developed to maximize the recharge capacity of the Chino Basin. Table 1 provides a summary of the potential storm water and imported water recharge capacities of 20 existing and proposed recharge basins within the Chino Basin. The location of these 20 recharge basins is shown on Figure 1. Figure 2 shows the Management Zones in the Chino Basin that is discussed with each of the recharge basins. As shown on Table 1, the total potential storm water and imported water recharge capacities range from about 18,790-23,700 acre-feet per year (AFY) and 81,800-122,100 AFY, respectively.

The focus of this evaluation will be on the proposed physical modifications to each of the recharge basins listed in Table 1 that will allow the enhancement of individual basin recharge capacity. Both the construction modifications and the proposed future operational modifications will be addressed as part of the analysis contained in this Initial Study.

B. LOCATION OF RECHARGE BASINS

Figure 1 shows the location of all of the recharge basins in the Chino Basin. The specific location of each basin is as follows:

1. Brooks Street Basin: This basin is located in the City of Montclair at the southeast corner of the intersection of Brooks Street and Silicon, located south of Holt Avenue and west of Ramona Avenue. The San Antonio Channel is located approximately 1/4 mile to the west. This is an unsectioned portion of the Valley (part of an old rancho). The Longitude of the site is approximately 117° 42'30" and the Latitude is approximately 34° 03'45" (Ontario 7.5' USGS Topographic Map). See Figure 3.
2. Montclair Basins: This recharge area consists of four basins (M1-M4) located in a series (from north to south) beginning immediately south of Arrow Highway; extending to just south of Interstate 10; east of San Antonio Channel; and west of Monte Vista Avenue in the city of Montclair. The San Antonio Channel is located immediately west of the recharge basins. The Longitude of the area is approximately 117° 42'25" and the Latitude is approximately 34° 05'00" (Ontario 7.5' USGS Topographic Map). See Figure 4.

3. Seventh and Eighth Street Basins: These recharge area consists of two basins located in a series (from north to south) beginning immediately south of 8th Street; extending to just north of Interstate 10; west of Grove Street; and east of Campus Avenue in the City of Ontario. The West Cucamonga Creek channel enters the upper (northern) basin adjacent to 8th Street and exists at the southern end of the lower basin. The Longitude of the area is approximately 117° 37'45" and the Latitude is approximately 34° 05'10" (Ontario 7.5' USGS Topographic Map). See Figure 5.
4. Upland Basin: This basin is located at the southeast corner of Monte Vista Avenue and Arrow Route in the City of Montclair. San Antonio Creek channel is located immediately west of the basin. This site is located in the southwest 1/4 of Section 11, T1S, R8W, San Bernardino Base and Meridian (SBB&M). (Ontario 7.5' USGS Topographic Map). See Figure 6.
5. Ely Basins: This recharge area consists of three basins, oriented east to west, located immediately north of Philadelphia Street; east and west of Vineyard Avenue; and east and west of Baker Avenue. The West Cucamonga Creek channel enters the western-most basin and exits the eastern most basin to flow about ½ mile to the east into Cucamonga Creek channel. The basins are located in the south ½ of Section 33 and 34, T1S, R7W, SBB&M. (Guasti 7.5' USGS Topographic Map). See Figure 7.
6. Etiwanda Spreading Basins: This recharge area consists of a series (6-8) north to south oriented recharge basins located north and south of Summit Avenue; east of East Avenue; and west of Wardman Road in the City of Rancho Cucamonga. The Etiwanda Creek channel is located along the east side of this recharge area. The basins are located in the south ½ of Section 21 and the northeast 1/4 of Section 28, T1N, R6W SBB&M. (Cucamonga Peak 7.5' USGS Topographic Map). See Figure 8.
7. Hickory Basin: This basin is located south of Whittram Road; east of Etiwanda Avenue; and west of Cottonwood Avenue. The San Sevaine Creek channel is located immediately west of the basin. This site is located in the southwest 1/4 of Section 10, T1S, R6W, SBB&M. (Guasti 7.5' USGS Topographic Map). See Figure 9.
8. Lower Day Creek Basin: This basin is located south of Highland Avenue, east of Rochester Avenue and west of the Day Creek channel in the City of Rancho Cucamonga. This site is located in the northeast 1/4 of Section 31, T1N, R6W, SBB&M. (Cucamonga Peak 7.5' USGS Topographic Map). See Figure 10.
9. San Sevaine Basins 1, 2 & 3: This recharge area consists of a series of three recharge basins oriented north to south located north of Interstate 15 and south of Summit Avenue; west of Cherry Avenue; and west of Interstate 15 in the City of Rancho Cucamonga. The San Sevaine channel (and a channel entering recharge Basin 3 from the Rich Basin) is located along the east side of this recharge area. The basins are located in the northeast 1/4 of Section 27 and the northwest 1/4 of Section 26, T1N, R6W, SBB&M. (Cucamonga Peak 7.5' USGS Topographic Map). See Figure 11.
10. San Sevaine Basins 4 & 5: This recharge area consists of a series of two recharge basins oriented northeast to southwest located north of Interstate 15 and south of Summit Avenue; west of Cherry Avenue; and west of Interstate 15; and north of the new 210 Freeway in the City of Rancho Cucamonga. The San Sevaine channel is located east of this recharge area and the Basin No. 5 outlets into Etiwanda Creek channel which is adjacent to and west of this basin. The basins are located in the south ½ of Section 27, T1N, R6W, SBB&M. (Cucamonga Peak 7.5' USGS Topographic Map). See Figure 11.
11. Turner Basin No. 1: This basin is located between the Cucamonga Creek and Deer Creek Channel, between Vineyard Avenue and Archibald Avenue, south of 4th Street and north of Inland Empire Boulevard in the City of Ontario. The Cucamonga Creek channel is located immediately west of this recharge basin. The basin occupies part of Section 22 of T1S, R7W, SBB&M. (Ontario 7.5' USGS Topographic Map). See Figure 12.
12. Turner Basins 2, 3 and 4: This recharge area consists of three recharge basins located between the Deer Creek channel and Archibald Avenue, south of 4th Street and north of Inland Empire Boulevard in the City of Ontario. The Deer Creek channel is located immediately north and west of this recharge basin. The basin occupies part of Section 22 of T1S, R7W, SBB&M. (Ontario 7.5' USGS Topographic Map). See Figure 13.
13. Victoria Basin: This basin is located north of Victoria Avenue and west of Interstate 15; west of East Avenue and west of the Etiwanda and San Sevaine channels in the City of Rancho Cucamonga. This

- site is located in the northeast 1/4 of Section 33, T1N, R6W, SBB&M. (Cucamonga Peak 7.5' USGS Topographic Map). See Figure 14.
14. Banana Basin: This basin is located west of Cherry Avenue; immediately south of Whittram Avenue; north of California Speedway and east of Calabash Avenue in the City of Fontana. This basin receives its storm water from an unnamed channel that enters the site from the north. The basin occupies part of Section 10 of T1S, R6W, SBB&M. (Fontana 7.5' USGS Topographic Map). See Figure 15.
 15. Declez Basin: This basin is located east of Mulberry Avenue; immediately south of Philadelphia Street; and north of the Jurupa Mountains in an unincorporated portion of Riverside County. This basin receives its storm water from the Declez Channel that enters the recharge basin from the north. The basin occupies part of Section 3 of T2S, R6W, SBB&M. (Guasti 7.5' USGS Topographic Map). See Figure 16.
 16. Etiwanda Conservation Ponds: This series of shallow basins/ponds are located at the southeast corner of the intersection of Etiwanda Avenue and San Bernardino Avenue in an unincorporated portion of San Bernardino County. These basins can receive runoff from Etiwanda Creek and the San Sevaine Channel. The ponds occupy about 40 acres located in the northeast 1/4 of Section 21, T1S, R6W, SBB&M. (Guasti 7.5' USGS Topographic Map). See Figure 17.
 17. Jurupa Basin: This basin is located west of Mulberry Avenue; east of Etiwanda Avenue; immediately north of Jurupa Avenue; and south of Santa Ana Avenue in the City of Fontana. This basin receives its storm water from the San Sevaine Channel which is located immediately west of the basin. The basin is located in the southeast 1/4 of Section 28, T1S, R6W, SBB&M. (Guasti 7.5' USGS Topographic Map). See Figure 18.
 18. Wineville Basin: This basin is located between Interstate 15 and Wineville Avenue, north of Philadelphia Street and south of Jurupa Street in the City of Ontario. This basin receives its storm water from both the Day Creek channel (northeast corner of the basin) and Etiwanda Creek channel (east side of the basin). The flows from these two channels are combined and storm water is discharged to the south down the Day Creek channel. The basin is located in the northeast 1/4 of Section 31, T1S, R6W, SBB&M. (Guasti 7.5' USGS Topographic Map). See Figure 19.
 19. College Heights Basins: Two existing abandoned quarries are located at the northeast corner of Arrow Route and Monte Vista Avenue intersection in an unincorporated area of San Bernardino County. These two quarries are divided by the San Antonio Creek channel which would provide storm water for recharge to these two prospective basins. The basins are located in the northwest 1/4 of Section 11, T1S, R8W, SBB&M. (Ontario 7.5' USGS Topographic Map). See Figure 20.
 20. RP-3 Basins: The abandoned Regional Plant No. 3 site is located at the southwest corner of Jurupa Avenue and Beech Avenue intersection in the City of Fontana. Several recharge basins are proposed to be constructed at the RP-3 project site which would receive storm water flows from the Declez Channel, which is located immediately south of the project site. The proposed basins would be located in the northeast 1/4 of Section 35, T1S, R6W, SBB&M. (Fontana 7.5' USGS Topographic Map). See Figure 21.

Again, all 20 recharge/spreading basins are shown on Figure 1 of this document.

C. PROJECT DESCRIPTION

1. General

As stated in the Introduction, the focus of this evaluation will be on the proposed physical modifications to each of the recharge basins listed in Table 1 that will allow the enhancement of individual basin recharge capacity. This Initial Study will evaluate potential physical effects of modifying the recharge basins summarized in Table 1 to handle the estimated volume of recharge capacity proposed, and the potential cumulative water resource impacts that may result from recharging the proposed greater volumes of storm water and imported water. The objective of

these modifications is to increase potential storm water and imported water recharge capacities of the basins to about 18,790-23,700 AFY and 81,800-122,100 AFY, respectively.

According to the Phase II Recharge Master Plan, the assessment of average annual storm water recharge capacity estimates that the ultimate (Year 2020) capacity ranges between 18,790 and 23,700 AFY. The Potential imported water recharge capacity that could be developed in the Chino Basin through implementation of the proposed improvements ranges from 81,800 to 122,100 AFY. The source of imported water that will be used for recharge in the Basin is assumed to be the State Water Project (SWP). Based on current and future pumping with the Basin, the replenishment obligation is estimated to be about 63,000 AFY. Thus, excess recharge capacity could be available. If the additional recharge capacity is fully developed, it will provide greater flexibility in managing recharge in general (e.g., maintaining hydrologic balance as part of the overall OBMP), and it could be used for conjunctive use.

As noted above, the focus of this environmental evaluation is on the potential physical effects of modifying the recharge basins summarized in Table 1 to handle the estimated volume of recharge capacity proposed and the potential water resource impacts that may result from recharging the proposed greater volumes of storm water and imported water. Table 2 provides the most current cost estimates for implementing the proposed capacity improvements to the basins. It is important to note that the agencies proposing to implement these basin improvements are seeking grant funds made available by Proposition 13 from the State Water Resources Control Board (SWRCB) through the Santa Ana Watershed Project Authority (SAWPA). If Proposition 13 funding is obtained, it is assumed that the recharge basin improvements will be implemented over a period of up to five years (proposed basin geometry optimizations may take 5 to 10 years to implement). several years (up to 10 years). It is also assumed that the proposed improvements at several basins will be under construction at the same time due to the need to complete construction by June 2003 for the grant funding. These assumptions are based on the estimated availability of funding, time required to final engineer for the improvements, and the availability of contractors to implement the improvements.

2. Project Objectives

The most recent population growth data presented in the Phase II Recharge Master Plan indicates that the population in the Santa Ana River Watershed (of which the Chino Basin is a major tributary) is considered to be the fastest growing in the United States. The current population of this watershed is estimated to be about 4.5 million persons and it is forecast to increase by two million persons over the next 25 years. Data compiled in the Phase II Recharge Master Plan indicate that water demand will increase substantially over this period, and conservation and efficient use of the Basin's water supply is a key component in meeting this forecast demand.

Historically, flood control projects were constructed to protect the region from flood hazards. However, the effectiveness in removing storm runoff from the Watershed has been so effective that groundwater recharge that formerly took place has been substantially reduced, if not eliminated. As a result, former recharge that occurred naturally has been lost and must now be mitigated by implementing management programs that use the existing flood control facilities to offset the current lack of recharge. Data presented in the Phase II Recharge Master Plan indicate that the volume of storm water not captured for recharge in the Chino Basin over the 22-year period from 1977 to 1999 averaged about 41,000 AFY and ranges from a low of 2,000 AFY to a high of about

174,000 AFY. Further, the volume of storm water generated in the Chino Basin is expected to increase due to future urban growth and greater amounts of impervious surface.

The Phase II Recharge Master Plan identifies the following potential project benefits or objectives that will be fulfilled if the proposed recharge program is implemented and the safe yield of the Chino Basin is increased by recharging both storm water and imported water. These benefits include:

- a. Improvements in ambient groundwater quality;
- b. Improvements in surface water quality in the Santa Ana River and its tributaries;
- c. Enhancement of the assimilative capacity of the Basin;
- d. Reduction in the cost of mitigating the recharge of recycled water in the Basin; and
- e. Replenishment (The new storm water recharged has been designated for use to satisfy part of the replenishment obligation of the desalters being operated in the Chino Basin.)

These objectives are intended to fulfill the primary purpose outlined in the Optimum Basin Management Plan PEIR (page 3-3 OBMP PEIR, July 2000) which is *“to develop a groundwater management program that enhances the safe yield and the water quality of the basin, enabling all groundwater users to produce water from the Basin in a cost-effective manner.”* The proposed project is also designed to partially fulfill three of the four goals developed for the OBMP (page 3-4 OBMP PEIR, July 2000). These are: enhance basin water supplies; protect and enhance water quality; and enhance management of the Basin. The OBMP developed program elements to implement the purpose and goals of Basin management. The proposed project is designed to partially implement three of the nine elements of the OBMP (pages 3-8 OBMP PEIR, July 2000):

- Develop and Implement Comprehensive Recharge Program;
- Develop and Implement Salt Management Program (including expanding recharge facilities to capture stormwater); and
- Develop and Implement Groundwater Storage Management Program.

3. Proposed Specific Basin Improvements

The Phase II Recharge Master Plan identifies the proposed improvements to the existing and proposed recharge basins. The current status (use) of the existing basins ranges from active flood control and water conservation facilities to inoperable or out-of-service facilities. Ownership of the basins varies, but in almost all cases arrangements will be required between the owners, the Watermaster and the SBCFD, to permit the capacity improvements to the basins and, more importantly, to the long-term modifications in operations of these facilities.

For purposes of the following project descriptions, the colored photographs (Figures 3-21) will be used to illustrate the location of proposed improvements to each basin. Figure 22 presents the locations of all proposed new turnouts or turnout expansions, and all pipelines necessary to convey imported water to the recharge basins. The Management Zone of each basin is also provided in the following text, and the Zones are shown on Figure 2. To restate, recycled water improvements and recharge operations are not being considered in this document. The recharge of recycled water has unique regulatory and water quality issues, and an evaluation of the recycled water issue is beyond the scope of this proposed project and environmental evaluation. A cumulative summary of physical modifications (such as total length of pipeline) will be presented at the end of the individual basin project descriptions which follow.

- **Brooks Street Basin**

The Brooks Street Basin is located in Management Zone No. 1 and is owned by the CBWCD. It encompasses approximately 7.7 acres. The Brooks Street Basin is currently operated and maintained by the SBCFCD. This basin currently receives storm water from local storm drain inlets along the north, northeastern and southeastern corners of the facility. The bottom of the basin has been trenched to allow side levee percolation, i.e., enhanced recharge facilitated by providing greater surface area for the storm water to percolate. This basin currently does not have an outlet.

The proposed improvements to the Brooks Street Basin are shown on Figure 3 and include:

- A diversion structure in the San Antonio Creek channel located about 1/4 mile west of the basin.
- Installation of a 48" diameter reinforced concrete pipe (RCP) pipeline from the channel to the basin. The pipeline will extend east by following an existing property line within disturbed urban area until it reaches Silicon Avenue. The pipeline will turn south and be extended within the roadway easement to the northwestern boundary of the basin. At the end of the pipeline, an inlet structure will be installed. Once the pipeline is installed on Silicon Avenue, the street will be repaved in accordance with City of Montclair standards. Total length of the pipeline is estimated to be 1,300 feet. Assuming a construction area width of 25 feet, the total area of disturbance between the channel and the basin is estimated to be 32,500 square feet, or .75 acre.
- An outlet structure (most probably a concrete sump) with a pump will be constructed on the south side of the basin and will have the capability of pumping water in the basin into the existing West State Street drainage channel, which returns flows to the San Antonio Creek channel.
- To provide sufficient imported water capacity at the Brooks Street Basin, the existing CB-59T turnout on the Rialto Pipeline (where it intersects the San Antonio Creek channel) will be expanded. Note that several turnouts will be expanded to provide sufficient imported water flow to the recharge basins. These improvements are typically simple modifications to increase the volume of imported water that can be released from the imported water pipeline to the channel.

Once the improvements are in place, the Brook Street Basin operations will be modified as follows:

- Current estimated recharge storm water recharge capacity is 1,250 AFY. After the modifications have been completed, the estimated recharge capacity will be increased to from 16,00 to 1,800 AFY.
- No imported water is presently recharged at this facility and future recharge of imported water is forecast to range from 2,200 and 3,300 AFY. Note that the total value of recharge at each facility has been estimated by the Watermaster in the Phase II Recharge Master Plan based on size of the basin, configuration, and boring tests to determine the daily percolation rate, which is estimated to be 1.5 feet/day for the Brooks Street Basin.
- Nuisance urban runoff flows may be diverted into this basin for percolation, which is estimated to account for about 10 acre-feet of the total storm runoff volume recharged in the basin.
- The Flood Control District will continue to operate and maintain the Brooks Street Basin under an agreement with the CBWCD. Additional management requirements due to the modified recharge proposal include: more effort at managing vegetation due to the longer presence of water; and greater efforts to control midges and mosquitos due to presence of imported water during the summer months.
- The Brooks Street Basin may be used to reduce peak flows in the San Antonio Creek channel if required. This will be possible because of the outlet that is proposed to be installed as part of the proposed modifications at this basin.

The total area of disturbance required to support these modifications is forecast to be less than one acre. The Watermaster indicates that the above modifications will require about three months to construct.

- **Montclair Basins**

The Montclair Basins are located in Management Zone No. 1 and are owned by the CBWCD. The four basins encompass approximately 28.3 acres: Montclair 1 = 6.8 acres; Montclair 2 = 10.9 acres; Montclair 3 = 3.9 acres; and Montclair 4 = 6.6 acres. See Figure 4. The Montclair Basins 1-3 are currently operated and maintained by the SBCFCD and Basin 4 is managed by the CBWCD. These basins currently receive storm water from several sources. Montclair 1 receives water from the channel via a drop inlet structure and two additional local storm drain inlets. Montclair 1 flows into Montclair 2 through both an outlet and a spillway structure beneath Moreno Avenue. Montclair 2 also receives local storm water from a single inlet and from a channel that carries flows from Montclair Plaza and surrounding areas. A low-flow outlet allows overflow into the San Antonio Creek channel. There is also an outlet structure to Montclair 3, two 36-inch diameter pipes beneath San Jose Avenue. An overflow spillway conveys flows to I-10 to San Antonio Channel and an outlet box delivers water to Montclair 4. Montclair 4 also has an outlet to the San Antonio Channel.

The proposed improvements to the Montclair Basins are shown on Figure 4 and include:

- No improvements are proposed to enhance stormwater delivery to the basins.
- Recharge in the basins will be optimized by reconfiguring the bottoms. An estimated 160,000 cubic yards of material will be removed from the basins to reshape and deepen them. All changes in the basins will be within the existing boundaries of the basins.
- To provide sufficient imported water capacity at the Montclair Basins, the existing CB-59T turnout on the Rialto Pipeline (where it intersects the San Antonio Creek channel) will be expanded. Note that several turnouts will be expanded to provide sufficient imported water flow to the recharge basins. These improvements are typically simple modifications to increase the volume of imported water that can be released from the imported water pipeline to the channel.

Once the improvements are in place, the Montclair Basins operations will be modified as follows:

- Current estimated storm water recharge capacity is 1,940 AFY. After the modifications have been completed, the estimated storm water recharge capacity will approximately 2,100 AFY.
- An estimated 6,500 AFY of imported water has been recharged at this facility in the past and future recharge of imported water is forecast to range from 10,300-15,300 AFY. Note that the total value of recharge at each facility has been estimated by the Watermaster in the Phase II Recharge Master Plan based on the size of the basin, configuration, and boring tests to determine the daily percolation rate, which is estimated to range from 1.0 to 2.5 feet/day for the Montclair Basins.
- Nuisance urban runoff flows may be diverted into these basins for percolation, which is estimated to account for about 40 acre-feet of the total storm runoff volume recharged in the basins.
- The Flood Control District will continue to operate and maintain the Montclair Basins 1-3 and Basin 4 under an agreement with the CBWCD. Additional management requirements due to the modified recharge proposal include: more effort at managing vegetation due to the longer presence of water; and greater efforts to control midges and mosquitos due to presence of imported water during the summer months.
- The Montclair Basins are not proposed to be used to reduce peak flows in the San Antonio Creek channel.

The total area of disturbance required to support these modifications is forecast to be less than about four acres at any given time at the bottom of the basins. The Watermaster indicates that the above modifications will require about four months to construct, if excavation activities are

implemented through contract. The CBWCD indicates that it may allow the material to be excavated by local contractors on an as-needed basis. This could result in the excavation activities being extended over one or two years based on the experience of the SBCFCD, which sells material from its flood control basins throughout the County. Under this scenario it is assumed that less than an acre of disturbance would exist within the Montclair Basins at any given time while excavation is underway.

- **Seventh and Eighth Street Basins**

The Seventh and Eighth Street Basins are located in Management Zone No. 1 and are owned by the SBCFCD. The two basins encompass approximately 14.5 acres: Eighth Street Basin = ~9 acres; and Seventh Street Basin = ~5.5 acres. See Figure 5. These basins currently receive storm water from several sources. Eighth Street primarily receives water from the West Cucamonga Creek channel via a concrete spillway structure and a box structure. Additional local runoff enters the basin from culvert or pipeline inlets. A concrete spillway outlet at the south end of this basin allows overflow into the Seventh Street Basin. Two other inlets deliver local runoff to the Seventh Street Basin. An outlet structure and spillway conveys flows to the West Cucamonga Creek channel at the south end of this basin.

The proposed improvements to the Seventh and Eighth Street Basins are shown on Figure 5 and include:

- Modify the inlet from West Cucamonga Creek channel into the Eighth Street Basin.
- Optimize the recharge in the basins by reconfiguring the basin geometry. An estimated 30,000 cubic yards of material will be removed from the basins to reshape and deepen them. All changes in the basins will be within the existing boundaries of the basins.
- Install a new weir outlet on the Seventh Street Basin to allow conservation storage of surface runoff within the basins.
- To provide sufficient imported water capacity at the Seventh and Eighth Street Basins, a new turnout on the Rialto Pipeline (near where it intersects the West Cucamonga Creek) will be installed. Note that this proposed turnout will serve both the Seventh and Eighth Street Basins and the Ely Basins with sufficient imported water flow to the recharge basins. These improvements are typically simple connections to the Rialto Pipeline that will provide a connection to imported water that can be released from the imported water pipeline to the channel.
- A new pipeline from the turnout to West Cucamonga Creek will be installed within existing road rights-of-way. The estimated length of the pipeline is 4,500 feet. See Figure 22.

Once the improvements are in place, the Seventh and Eighth Street Basins operations will be modified as follows:

- The Seventh and Eighth Street Basins have historically been operated solely as flood control basins, shaving the peak off of storm runoff during storms. In order to allow these facilities to be used for conservation purposes, a detailed operating agreement must first be implemented between the Watermaster and SBCFCD. All parties are aware that conservation objectives can only be implemented after flood control responsibilities are fulfilled. Current estimated storm water recharge capacity is -0- AFY. After the modifications have been completed, the estimated recharge capacity will range from 1,100-1600 AFY.
- No imported water has historically been recharged at this facility and the future recharge of imported water is forecast to range from 1,400-2,100 AFY. Note that the total value of recharge at each facility has been estimated by the Watermaster in the Phase II Recharge Master Plan based on size of the

basin, configuration, and boring tests to determine the daily percolation rate, which is estimated to be about 0.5 feet/day for the Seventh and Eighth Street Basins.

- Nuisance urban runoff flows may be diverted into these basins for percolation which is estimated to account for about 10 acre-feet of the total storm runoff volume recharged in the basins.
- The Flood Control District will continue to operate and maintain these basins under a detailed operating agreement with the Watermaster, as outlined above. Additional management requirements due to the modified recharge proposal include: more effort at managing vegetation due to the longer presence of water; and greater efforts to control midges and mosquitos due to presence of imported water during the summer months.

The total area of disturbance required to support these modifications is forecast to be less than about 2.5 acres at any given time at the bottom of the basins. The Watermaster indicates that the above modifications will require about three months to construct, if excavation activities are implemented through contract. The District indicates that it may allow the material to be excavated by local contractors on an as-needed basis. This could result in the excavation activities being extended over one or two years based on the experience of the SBCFCD, which sells material from its flood control basins throughout the County. Under this scenario, it is assumed that less than an acre of disturbance would exist within the Seventh and Eighth Street Basins at any given time while excavation is underway.

- **Upland Basin**

The Upland Basin is located in Management Zone No. 1 and is owned by the City of Upland. It encompasses approximately 10.1 acres. See Figure 6. The Upland Basin is currently operated and maintained by the Watermaster under an agreement with the City of Upland. This basin currently receives storm water from a single local storm drain inlet to the facility, which has no outlet.

The proposed improvements to the Upland Basin are shown on Figure 6 and include:

- A new inlet structure from the proposed College Heights Basin will be constructed. This will allow storm flows from the San Antonio Creek channel located about just west of the basin to be delivered and allow imported water also to be delivered from the College Heights Basin.
- An outlet structure with a spillway and pipeline from the basin to the San Antonio Creek Channel will be installed. The outlet connection will be a few hundred feet long between the basin and channel.
- The basin will be deepened and its geometry optimized to facilitate percolation of storm water and imported water. An estimated 82,000 cubic yards of material will be removed from the basin to reshape and deepen it. All changes in the basin will be within the existing boundaries of the basin.
- To provide sufficient imported water capacity at the Upland Basin, the existing CB-59T turnout on the Rialto Pipeline (where it intersects the San Antonio Creek channel) will be expanded.

Once the improvements are in place, the Upland Basin operations will be modified as follows:

- Current estimated storm water recharge capacity is 760 AFY. After the modifications have been completed, the estimated recharge capacity will be increased to 1,000 AFY.
- No imported water is presently recharged at this facility and future recharge of imported water is forecast to range from 5,800-8,700 AFY. Note that the total value of recharge at each facility has been estimated by the Watermaster in the Phase II Recharge Master Plan based on size of the basin, configuration, and boring tests to determine the daily percolation rate, which is estimated to be 3.0 feet/day for the Upland Basin.
- Nuisance urban runoff flows may be diverted into this basin for percolation which is estimated to account for about 10 acre-feet of the total storm runoff volume recharged in the basin.

- The Flood Control District will operate and maintain the Upland Basin on behalf of the Watermaster under an agreement with the City of Upland. Additional management requirements due to the modified recharge proposal include: more effort at managing vegetation due to the longer presence of water; and greater efforts to control midges and mosquitos due to presence of imported water during the summer months.

The total area of disturbance required to support these modifications is forecast to be less than about 2.5 acres at any given time at the bottom of the basin. The Watermaster indicates that the above modifications will require about three months to construct, if excavation activities are implemented through contract. The Watermaster may allow the material to be excavated by local contractors on an as-needed basis. This could result in the excavation activities being extended over one or two years based on the experience of the SBCFCD, which sells material from its flood control basins throughout the County. Under this scenario it is assumed that less than an acre of disturbance would exist within the Upland Basin at any given time while excavation is underway.

- **Ely Basins**

The Ely Basins are located in Management Zone No. 2 and are owned by both the SBCFCD and CBWCD. The three basins encompass approximately 35.7 acres, or about 12 acres for each basin. See Figure 7. The three Ely Basins are currently operated and maintained by the SBCFCD. These basins currently receive storm water from several sources. West Cucamonga Creek channel flows directly into Ely 1, which also receives storm water from local drainage inlets. Ely 1 flows into Ely 2 through a shallow box tunnel with a low flow pipeline connection. Ely 2 and Ely 3 are similarly connected. A spillway allows water in Ely 3 to be released into the continuation of the West Cucamonga Creek channel.

The proposed improvements to the Ely Basins are shown on Figure 7 and include:

- A geotechnical investigation will be conducted to verify that the south banks of all three basins are adequate to store and conserve storm water for prolonged periods of time. This effort will consist of borings and other engineering evaluations.
- Recharge in the basins will be optimized by reconfiguring the bottoms with low level control berms to manage nuisance flows for recharge. All changes in the basins will be within the existing boundaries of the basins.
- The outlet works will be modified to allow for conservation storage in the basins.
- A monitoring and gate control system (SCADA) will be installed at the outlet works.
- To provide sufficient imported water capacity at the Ely Basins, a new turnout on the Rialto Pipeline (near where it intersects the West Cucamonga Creek) will be installed. Note that this proposed turnout will serve both the Seventh and Eighth Street Basins and the Ely Basins with sufficient imported water flow to the recharge basins. These improvements are typically simple connections to the Rialto Pipeline that will provide a connection to imported water that can be released from the imported water pipeline to the channel.
- A new pipeline from the turnout to West Cucamonga Creek will be installed within existing road rights-of-way. The estimated length of the pipeline is 4,500 feet.

Once the improvements are in place, the Ely Basins operations will be modified as follows:

- Current estimated storm water recharge capacity is 2,000 AFY. In order to allow these facilities to be used for greater conservation purposes, a detailed operating agreement must first be implemented between the Watermaster and San Bernardino County Flood Control District. All parties are aware that conservation objectives can only be implemented after flood control responsibilities are fulfilled.

After the modifications have been completed, the estimated recharge capacity will range from 2,300 and 2,800 AFY.

- No historic imported water recharge has occurred at the Ely Basins and future recharge of imported water is forecast range from 3,400 and 5,100 AFY. Note that the total value of recharge at each facility has been estimated by the Watermaster in the Phase II Recharge Master Plan based on size of the basin, configuration, and boring tests to determine the daily percolation rate, which is estimated to be about 0.5 feet/day for the Ely Basins.
- Nuisance urban runoff flows may be diverted into these basins for percolation which is estimated to account for about 20 acre-feet of the total storm runoff volume recharged in the basins.
- The Flood Control District will continue to operate and maintain the Ely Basins, including Ely Basin 3 under an agreement with the CBWCD. Additional management requirements due to the modified recharge proposal include: more effort at managing vegetation due to the longer presence of water; and greater efforts to control midges and mosquitos due to presence of imported water during the summer months.

The total area of disturbance required to support these modifications is forecast to be less than about one acre at any given time at the bottom of the basins. The Watermaster indicates that the above modifications will require about four months to construct.

- **Etiwanda Spreading Basins**

The Etiwanda Spreading Basins are located in Management Zone No. 2 and are owned by the SBCFCD. The six small basins encompass approximately 10 acres. See Figure 8. The six Etiwanda Spreading Basins are currently operated and maintained by the SBCFCD. These basins currently receive storm water from Etiwanda Creek and imported water from an existing connection (CB-14T) from the Rialto pipeline. Spillways between the basins allows water to flow between the basins. There is currently no outlet structure from these basins. The District is presently pursuing improvements to the Etiwanda Spreading Basins under a separate project.

The proposed improvements to the Etiwanda Spreading Basins are shown on Figure 8 and include:

- To provide sufficient imported water capacity at the Etiwanda Spreading Basins, the existing turnout on the Rialto Pipeline (CB-14T) will be expanded. Note that this proposed turnout will serve the Etiwanda Spreading Basins, Etiwanda Conservation Ponds, and the Victoria Basin with sufficient imported water flow to the recharge basins. These improvements are typically simple connections to the Rialto Pipeline that will provide a connection to imported water that can be released from the imported water pipeline to the channel.

Once the improvements are in place, the Etiwanda Spreading Basins operations will be modified as follows:

- Current estimated storm water recharge capacity is -0- AFY. If the District's proposed improvements to the Etiwanda Spreading Basins is approved and implemented, it is estimated that 1,200-1,700 AFY of storm water can be recharged. In order to allow these facilities to be used for greater conservation purposes, a detailed operating agreement must first be implemented between the Watermaster and SBCFCD. All parties are aware that conservation objectives can only be implemented after flood control responsibilities are fulfilled.
- Historically, some unquantified amount of imported water recharge has been recharged at the Etiwanda Spreading Basins and future recharge of imported water is forecast to range from 5,800-8,600 AFY. Note that the total value of recharge at each facility has been estimated by the Watermaster in the Phase II Recharge Master Plan based on size of the basin, configuration, and

boring tests to determine the daily percolation rate, which is estimated to be about 3.0 feet/day for the Etiwanda Spreading Basins.

- The Flood Control District will continue to operate and maintain the Etiwanda Spreading Basins. Additional management requirements due to the modified recharge proposal include: more effort at managing vegetation due to the longer presence of water; and greater efforts to control midges and mosquitos due to presence of imported water during the summer months.

The total area of disturbance required to support this proposed project's modifications to the Etiwanda Spreading Basins is forecast to be less than about 1/10 acre. The Watermaster indicates that the above modifications will require about four months to construct.

- **Hickory Basin**

The Hickory Basin is located in Management Zone No. 1 and is owned by the SBCFCD. It encompasses approximately 8.0 acres. See Figure 9. The Hickory Basin is currently operated and maintained by the District, primarily in support of flood control management. This basin currently receives storm water from two sources: a three foot diameter pipe inlet from the San Sevaine Channel (adjacent to the west side of the basin) and an inlet on the northeast side from Banana Basin. A berm directs stored water to the southwest side of the basin where the water can flow back into the San Sevaine channel.

The proposed improvements to the Hickory Basin are shown on Figure 9 and include:

- A new drop inlet structure from the San Sevaine Channel will be constructed, with costs shared by Banana Basin. This will allow storm flows from the San Sevaine channel located about just west of the basin to be delivered to Hickory Basin, and also allow imported water also to be delivered from the San Sevaine Channel.
- A modified outlet structure will be installed, which will allow for conservation storage in Hickory Basin.
- The basin will be deepened and its geometry optimized to facilitate percolation of storm water and imported water. An estimated 65,000 cubic yards of material will be removed from the basin to reshape and deepen it. All changes in the basin will be within the existing boundaries of the basin.
- A pump station and pipeline will be installed in the West Fontana Channel right-of-way to deliver stored water to Banana Basin which currently receives only local storm water.
- To provide sufficient imported water capacity at the Hickory Basin, a new turnout will be installed at the Etiwanda Forebay to deliver water to the Basin. This turnout will ultimately provide imported water to Banana, Declez, Jurupa, and the RP-3 Basins as well.
- A new 5,000 foot long pipeline will be extended from the turnout within existing road rights-of-way to deliver imported water to Hickory Basin.

Once the improvements are in place, the Hickory Basin operations will be modified as follows:

- Current estimated storm water recharge capacity is -0- AFY. After the modifications have been completed, the estimated recharge capacity will range from 600-900 AFY.
- No imported water is presently recharged at this facility and future recharge of imported water is forecast to range from 3,100-4,600 AFY. Note that the total value of recharge at each facility has been estimated by the Watermaster in the Phase II Recharge Master Plan based on size of the basin, configuration, and boring tests to determine the daily percolation rate, which is estimated to be 2.0 feet/day for the Hickory Basin.
- Nuisance urban runoff flows may be diverted into this basin for percolation which is estimated to account for about 10 acre-feet of the total storm runoff volume recharged in the basin.
- The Flood Control District will continue operate and maintain the Hickory Basin under an agreement with the Watermaster. In order to allow this facility to be used for greater conservation purposes, a

detailed operating agreement must first be implemented between the Watermaster and SBCFCD. All parties are aware that conservation objectives can only be implemented after flood control responsibilities are fulfilled. Additional management requirements due to the modified recharge proposal include: more effort at managing vegetation due to the longer presence of water; and greater efforts to control midges and mosquitos due to presence of imported water during the summer months.

The total area of disturbance required to support these modifications is forecast to be less than about 2.5 acres at any given time at the bottom of the basin. The Watermaster indicates that the above modifications will require about three months to construct, if excavation activities are implemented through contract. The Watermaster may allow the material to be excavated by local contractors on an as-needed basis. This could result in the excavation activities being extended over one or two years based on the experience of the SBCFCD which sells material from its flood control basins throughout the County. Under this scenario it is assumed that less than an acre of disturbance would exist within the Hickory Basin at any given time while excavation is underway.

- **Lower Day Creek Basin**

The Lower Day Creek Basin is located in Management Zone No. 2 and is owned by the SBCFCD. It encompasses two subbasins over approximately 14.4 acres. An existing pipeline connects the two basins. See Figure 10. The Lower Day Creek Basin is currently operated and maintained by the District, primarily in support of flood control management. This basin currently receives storm water from three sources: two inlets deliver local storm runoff on the north side of the basin, and a three-foot high side channel spillway allows high-flows to be diverted from the adjacent Day Creek Channel and delivered to the basin through an open channel. A low-flow outlet is located at the southeast corner of the basin that returns water to the Day Creek Channel. A high volume concrete spillway provides larger return at the same location to the Channel.

The proposed improvements to the Lower Day Creek Basin are shown on Figure 10 and include:

- A modified outlet structure will be installed to allow for conservation storage in the Basin.
- To provide sufficient imported water capacity at the Lower Day Creek Basin, a new turnout will be installed on the Rialto Pipeline to deliver flows to Day Creek Channel. This turnout will also ultimately provide imported water to the Wineville Basin.
- Due to the steep slope of the Day Creek Channel, a new pipeline is proposed to convey imported water to the Lower Day Creek Basin. A new 4,000-foot long pipeline will be extended from the existing Metropolitan turnout to the Basin, with the last 300 feet consisting of long bore and jack under Highway 30 and the Day Creek Channel. The pipeline will be installed within existing Channel right-of-way to deliver imported water to the Lower Day Creek Basin.

Once the improvements are in place, the Lower Day Creek Basin operations will be modified as follows:

- Current estimated storm water recharge capacity is 0 AFY. After the modifications have been completed, the estimated recharge capacity will be increased to 400-500 AFY.
- No imported water is presently recharged at this facility and future recharge of imported water is forecast to range from 2,800 to 4,200 AFY. Note that the total value of recharge at each facility has been estimated by the Watermaster in the Phase II Recharge Master Plan based on size of the basin, configuration, and boring tests to determine the daily percolation rate, which is estimated to be 1.0 foot/day for the Lower Day Creek Basin.

- Nuisance urban runoff flows may be diverted into this basin for percolation which is estimated to account for about 10 acre-feet of the total storm runoff volume recharged in the basin.
- The Flood Control District will continue operate and maintain the Lower Day Creek Basin under an agreement with the Watermaster. In order to allow this facility to be used for greater conservation purposes, a detailed operating agreement must first be implemented between the Watermaster and SBCFCD. All parties are aware that conservation objectives can only be implemented after flood control responsibilities are fulfilled. Additional management requirements due to the modified recharge proposal include: more effort at managing vegetation due to the longer presence of water; and greater efforts to control midges and mosquitos due to presence of imported water during the summer months.

The total area of disturbance required to support these modifications is forecast to be about one acre related to pipeline construction. The Watermaster indicates that the above modifications will require about three months to construct.

- **San Sevaive Basins 1, 2 and 3**

The San Sevaive Basins 1, 2 and 3 are located in Management Zone No. 2 and are owned by the SBCFCD. These three basins encompass approximately 33.6 acres: Basin 1 is ~17.9; Basin 2 is ~6.1 acres; and Basin 3 is ~9.6 acres. See Figure 11. Basins 1-3 are not identified on the aerial photo, but these basins are the three basins north of "SS 4. The San Sevaive Basins 1, 2 and 3 are currently operated and maintained by the SBCFCD. San Sevaive Basin 1 receives flows from several inlet structures on the north side of the Basin. Sources of water for this Basin include: the MWD CB14T bubbler outlet; storm drains from Summit Avenue and adjoining areas, and storm water from the San Gabriels. An outlet spillway on the south side connects Basin 1 with Basin 2. Basin 2 receives water only from Basin 1. Two outlets located at the south end of Basin 2 connect to Basin 3. Basin 3 also receives water through an inlet on the east side from the Rich Basin. An outlet on the south side of Basin 3 connects to San Sevaive Basin 4.

The proposed improvements to the San Sevaive Basins are shown on Figure 11 and include:

- To provide sufficient imported water capacity at the San Sevaive Basins1-3, the existing Metropolitan turnout/bubbler will be expanded. This expansion will support delivery of imported water to all five of the San Sevaive Basins.

Once the improvements are in place, the San Sevaive Basins 1, 2 and 3 operations will be modified as follows:

- Current estimated storm water recharge capacity is 1,010 AFY. If the proposed improvement to the San Sevaive Basins 1, 2 and 3 is approved and implemented, it is estimated that from 1,420-1,700 AFY of storm water can be recharged. In order to allow these facilities to be used for greater conservation purposes, a detailed operating agreement must first be implemented between the Watermaster and SBCFCD. All parties are aware that conservation objectives can only be implemented after flood control responsibilities are fulfilled.
- Historically, an unquantified amount of imported water recharge has been recharged at the San Sevaive Basins 1, 2 and 3 and future recharge of imported water is forecast to range from 15,200-22,900 AFY. Note that the total value of recharge at each facility has been estimated by the Watermaster in the Phase II Recharge Master Plan based on size of the basin, configuration, and boring tests to determine the daily percolation rate, which is estimated to be about 0.5 feet/day for the San Sevaive Basins 1, 2 and 3.
- The Flood Control District will continue to operate and maintain the San Sevaive Basins 1, 2 and 3. Additional management requirements due to the modified recharge proposal include: more effort at managing vegetation due to the longer presence of water; and greater efforts to control midges and mosquitos due to presence of imported water during the summer months.

The total area of disturbance required to support this proposed project's modifications to the San Sevaine Basins is forecast to be less than about 1/10 acre. The Watermaster indicates that the above modifications will require about four months to construct.

- **San Sevaine Basins 4 and 5**

The San Sevaine Basins 4 and 5 are located in Management Zone No. 2 and are owned by the SBCFCD. These two basins encompass approximately 56.5 acres: Basin 4 is ~7 acres; and Basin 5 is 50 acres. See Figure 11. The San Sevaine Basins 4 and 5 are currently operated and maintained by the SBCFCD. San Sevaine Basin 4 receives flows from San Sevaine Basin 3 and a second inlet structures delivers local storm runoff flows to the north side of the Basin. The Flood Control District has a proposal to create one basin out of these two basins, but currently an outlet spillway on the southwest side connects Basin 4 with Basin 5, which is approximately ½ mile long. Basin 5 connects to the San Sevaine Channel through three outlets: a 20-foot wide concrete spillway; a 48-inch diameter low-flow outlet and a 30-inch diameter low-flow outlet.

The proposed improvements to the San Sevaine Basins 4 and 5 are shown on Figure 11 and include:

- The outlet works will be modified to provide for conservation storage
- The basin will be deepened and its geometry optimized to facilitate percolation of storm water and imported water. An estimated 450,000 cubic yards of material will be removed from the basin to reshape and deepen it. All changes in the basin will be within the existing boundaries of the basin.
- To provide sufficient imported water capacity at the San Sevaine Basins, the existing Metropolitan turnout/bubbler will be expanded. This expansion will support delivery of imported water to all five of the San Sevaine Basins.

Once the improvements are in place, the San Sevaine Basins 4 and 5 operations will be modified as follows:

- Current estimated storm water recharge capacity is 60 AFY. If the proposed improvements to the San Sevaine Basins 4 and 5 is approved and implemented, it is estimated that from 5,400-8,100 AFY of storm water can be recharged. In order to allow these facilities to be used for greater conservation purposes, a detailed operating agreement must first be implemented between the Watermaster and SBCFCD. All parties are aware that conservation objectives can only be implemented after flood control responsibilities are fulfilled.
- Historically, an unquantified amount of imported water recharge has been recharged at the San Sevaine Basins 4 and 5 and future recharge of imported water is forecast to range between 5,400-8,100 AFY. Note that the total value of recharge at each facility has been estimated by the Watermaster in the Phase II Recharge Master Plan based on size of the basin, configuration, and boring tests to determine the daily percolation rate, which is estimated to be about 0.5 feet/day for the San Sevaine Basins 4 and 5.
- The Flood Control District will continue to operate and maintain the San Sevaine Basins 4 and 5. Additional management requirements due to the modified recharge proposal include: more effort at managing vegetation due to the longer presence of water; and greater efforts will be required to control midges and mosquitos due to presence of imported water during the summer months.

The total area of disturbance required to support this proposed project's modifications to the San Sevaine Basins is forecast to be less than about 10 acres at any given time. The Watermaster indicates that the above modifications will require about six months to construct, if excavation activities are implemented through contract. The Watermaster may allow the material to be

excavated by local contractors on an as-needed basis. This could result in the excavation activities being extended over one or two years based on the experience of the San Bernardino County Flood Control District which sells material from its flood control basins throughout the County. Under this scenario it is assumed that less than an five of disturbance would exist within the San Sevaine Basins 4 and 5 at any given time while excavation is underway, i.e., during the period when excavation is underway, the working area will be limited to five acres or less.

- **Turner Basin 1**

The CBWCD has already completed the engineering and CEQA determination for proposed improvements to Turner Basin 1. This Basin will not be given further consideration in this Initial Study. The proposed improvements to Turner Basin are shown Figure 12

- **Turner Basins 2, 3 and 4**

The Turner Basins 2, 3 and 4 are located in Management Zone No. 2 and are owned by the SBFCD. These three basins encompass approximately 23.3 acres. See Figure 13. The Turner Basins 2, 3 and 4 are currently operated and maintained by the SBCFCD. These basins receive flows from two sources. On the east side of the basin is a 30-foot by 10-foot tunnel from Turner Basins 5, 8 and 9 that connects these basins under Archibald Avenue. The second inlet structure is a grated opening on the side of Deer Creek Channel, which is located on the north side of the basins. This connection is not observable on the basin side and may not be functional at this time. A concrete spillway connects the larger basin with a smaller basin, which delivers high flows back into the Deer Creek Channel. A 36-inch diameter low-flow outlet also connects this small basin with the Channel.

The proposed improvements to the Turner Basins are shown on Figure 13 and include:

- A new drop inlet structure will be installed to connect the basins and Deer Creek Channel.
- The outlet works will be modified to provide for conservation storage.
- The basin will be deepened and its geometry optimized to facilitate percolation of storm water and imported water. An estimated 188,000 cubic yards of material will be removed from the basin to reshape and deepen it. All changes in the basin will be within the existing boundaries of the basin.
- A low flow berm will be installed in the basin to control nuisance flows.
- To provide sufficient imported water capacity at the Turner Basins 2, 3 and 4 a new turnout on the Rialto Pipeline will be installed at Deer Creek. This new turnout will support delivery of imported water to Turner Basin 1.

Once the improvements are in place, the Turner Basins 2, 3 and 4 operations will be modified as follows:

- Current estimated storm water recharge capacity is -0- AFY. If the proposed improvements to the Turner Basins 2, 3 and 4 are approved and implemented, it is estimated that from 1,300-1,800 AFY of storm water can be recharged. In order to allow these facilities to be used for greater conservation purposes, a detailed operating agreement must first be implemented between the Watermaster and SBCFCD. All parties are aware that conservation objectives can only be implemented after flood control responsibilities are fulfilled.
- Historically, no imported water recharge has been recharged at the Turner Basins 2, 3 and 4 and future recharge of imported water is forecast to range from 2,300-3,400 AFY. Note that the total value of recharge at each facility has been estimated by the Watermaster in the Phase II Recharge Master

Plan based on size of the basin, configuration, and boring tests to determine the daily percolation rate, which is estimated to be about 0.5 feet/day for the Turner Basins 2, 3 and 4.

- The Flood Control District will continue to operate and maintain the Turner Basins 2, 3 and 4. Additional management requirements due to the modified recharge proposal include: more effort at managing vegetation due to the longer presence of water; and greater efforts to control midges and mosquitos due to presence of imported water during the summer months.

The total area of disturbance required to support this proposed project's modifications to the San Sevaine Basins is forecast to be less than about 5 acres at any given time. The Watermaster indicates that the above modifications will require about four months to construct, if excavation activities are implemented through contract. The Watermaster may allow the material to be excavated by local contractors on an as-needed basis. This could result in the excavation activities being extended over one or two years based on the experience of the SBCFCD, which sells material from its flood control basins throughout the County. Under this scenario it is assumed that less than an 3 of disturbance would exist within the Turner Basins 2, 3 and 4 at any given time while excavation is underway, i.e., during the period when excavation is underway, the working area will be limited to five acres or less.

- **Victoria Basin**

The Victoria Basin is located in Management Zone No. 2 and is owned by the SBCFCD. It encompasses approximately 11.8 acres. See Figure 14. The Victoria Basin is currently operated and maintained by the District, primarily in support of flood control management. This basin currently receives storm water from two sources: a concrete ramp which connects the Etiwanda Storm Drain to the Basin (several individual homes drain onto this ramp) and a second inlet on the north side of the Basin that delivers local storm runoff. Two low-flow outlets are located in the Basin, one that flows east to the Etiwanda Creek Channel and the other at the south end basin that returns water to the Etiwanda Creek Channel.

The proposed improvements to the Victoria Basin are shown on Figure 15 and include:

- A modified outlet structure will be installed to allow for conservation storage in the Basin.
- To provide sufficient imported water capacity at the Victoria Basin, the CB14T turnout on the Rialto Pipeline will be expanded. This turnout will also ultimately provide imported water to the Etiwanda Spreading Basins and the Etiwanda Conservation Ponds.
- The Flood Control District is proposing to divert additional storm water flow and imported water by installing a new inlet structure from the Etiwanda Creek Channel.

Once the improvements are in place, the Victoria Basin operations will be modified as follows:

- Current estimated storm water recharge capacity is estimated to be 240 AFY. After the modifications have been completed, the estimated recharge capacity will be range from 800-1,000 AFY.
- No imported water is presently recharged at this facility and future recharge of imported water is forecast to range from 3,400-5,100 AFY. Note that the total value of recharge at each facility has been estimated by the Watermaster in the Phase II Recharge Master Plan based on size of the basin, configuration, and boring tests to determine the daily percolation rate, which is estimated to be 1.5 foot/day for the Victoria Basin.
- The Flood Control District will continue operate and maintain the Victoria Basin under an agreement with the Watermaster. In order to allow this facility to be used for greater conservation purposes, a detailed operating agreement must first be implemented between the Watermaster and SBCFCD. All parties are aware that conservation objectives can only be implemented after flood control

responsibilities are fulfilled. Additional management requirements due to the modified recharge proposal include: more effort at managing vegetation due to the longer presence of water; and greater efforts to control midges and mosquitos due to presence of imported water during the summer months.

The total area of disturbance required to support these modifications is forecast to be about 1/10 acre related to facility construction. The Watermaster indicates that the above modifications will require about four months to construct.

- **Banana Basin**

The Banana Basin is located in Management Zone No. 3 and is owned by the SBCFCD. It encompasses approximately 6.2 acres. See Figure 15. The Banana Basin is currently operated and maintained by the District, primarily in support of local flood control management. This basin currently receives storm water from two sources: a concrete ramp on the north side of the basin receives flows from Banana Road and a rock-lined inlet at the southeast corner of the basin receives storm flows from the West Fontana Channel. A single outlet delivers flows to a natural channel that transports storm flows to Hickory Basin.

The proposed improvements to the Banana Basin are shown on Figure 15 and include:

- The basin will be deepened and its geometry optimized to facilitate percolation of storm water and imported water. An estimated 50,000 cubic yards of material will be removed from the basin to reshape and deepen it. All changes in the basin will be within the existing boundaries of the basin.
- A pump station and pipeline will be installed in the West Fontana Channel right-of-way to deliver stored water from Hickory Basin to Banana Basin, which currently receives only local storm water.
- To provide sufficient imported water capacity at the Banana Basin, a new turnout will be installed at the Etiwanda Forebay to deliver water to the Banana Basin. This turnout will ultimately provide imported water to Hickory, Banana, Declz, Jurupa, and the RP-3 Basins.
- A new 5,000 foot long pipeline will be extended from the turnout within existing road rights-of-way to deliver imported water to the Banana Basin.

Once the improvements are in place, the Banana Basin operations will be modified as follows:

- Current estimated storm water recharge capacity is -0- AFY. After the modifications have been completed, the estimated recharge capacity will be increased from 600-800 AFY.
- No imported water is presently recharged at this facility and future recharge of imported water is forecast to range from 2,400-3,600 AFY. Note that the total value of recharge at each facility has been estimated by the Watermaster in the Phase II Recharge Master Plan based on size of the basin, configuration, and boring tests to determine the daily percolation rate, which is estimated to be 2.0 feet/day for the Banana Basin.
- Nuisance urban runoff flows may be diverted into this basin for percolation which is estimated to account for about 10 acre-feet of the total storm runoff volume recharged in the basin.
- The Flood Control District will continue operate and maintain the Banana Basin under an agreement with the Watermaster. In order to allow this facility to be used for greater conservation purposes, a detailed operating agreement must first be implemented between the Watermaster and SBCFCD. All parties are aware that conservation objectives can only be implemented after flood control responsibilities are fulfilled. Additional management requirements due to the modified recharge proposal include: more effort at managing vegetation due to the longer presence of water; and greater efforts to control midges and mosquitos due to presence of imported water during the summer months.

The total area of disturbance required to support these modifications is forecast to be less than about 2 acres at any given time at the bottom of the basin. The Watermaster indicates that the above modifications will require about three months to construct, if excavation activities are implemented through contract. The Watermaster may allow the material to be excavated by local contractors on an as-needed basis. This could result in the excavation activities being extended over one or two years based on the experience of the SBCFCD, which sells material from its flood control basins throughout the County. Under this scenario it is assumed that less than an acre of disturbance would exist within the Banana Basin at any given time while excavation is underway.

- **Declez Basin**

The Declez Basin is located in Management Zone No. 3 and is owned by the SBCFCD. It encompasses approximately 6 acres. See Figure 16. The Declez Basin is currently operated and maintained by the District, primarily in support of local flood control management. This basin currently receives storm water from the Declez Channel which flows into the north end of the basin via a concrete inlet. A single low-flow outlet delivers flows to the Declez Channel which continues to flow southwest until it intersects the San Sevaime Channel.

The proposed improvements to the Declez Basin are shown on Figure 16 and include:

- Internal berms (check dams) will be constructed within the basin to optimize percolation of storm water and imported water and outlet structures will be incorporated into these internal berms. All changes in the basin will be within the existing boundaries of the basin.
- To provide sufficient imported water capacity at the Declez Basin, a new turnout will be installed at the Etiwanda Forebay to deliver water to the Declez Basin. This turnout will ultimately provide imported water to Hickory, Banana, Declez, Jurupa, and the RP-3 Basins.
- A new 5,000 foot long pipeline will be extended from the turnout within existing road rights-of-way to deliver imported water to the Declez Basin.

Once the improvements are in place, the Declez Basin operations will be modified as follows:

- Current estimated storm water recharge capacity is -0- AFY. After the modifications have been completed, the estimated recharge capacity will be increased from 200-300 AFY.
- No imported water is presently recharged at this facility and future recharge of imported water is forecast to range from 1,200-1,800 AFY. Note that the total value of recharge at each facility has been estimated by the Watermaster in the Phase II Recharge Master Plan based on size of the basin, configuration, and boring tests to determine the daily percolation rate, which is estimated to be 1.0 foot/day for the Declez Basin.
- Nuisance urban runoff flows may be diverted into this basin for percolation which is estimated to account for about 10 acre-feet of the total storm runoff volume recharged in the basin.
- The Flood Control District will continue operate and maintain the Declez Basin under an agreement with the Watermaster. In order to allow this facility to be used for greater conservation purposes, a detailed operating agreement must first be implemented between the Watermaster and SBCFCD. All parties are aware that conservation objectives can only be implemented after flood control responsibilities are fulfilled. Additional management requirements due to the modified recharge proposal include: more effort at managing vegetation due to the longer presence of water; and greater efforts to control midges and mosquitos due to presence of imported water during the summer months.

The total area of disturbance required to support these modifications is forecast to be less than about 2 acres at any given time at the bottom of the basin. The Watermaster indicates that the above modifications will require about three months to construct.

- **Etiwanda Conservation Ponds**

The Etiwanda Conservation Ponds are located in Management Zone No. 3 and are owned by the SBCFCD. The ten small ponds encompass approximately 20 acres. See Figure 17. The ten Etiwanda Conservation Ponds are currently operated and maintained by the SBCFCD, but they are in poor condition and have not been operated in the recent past. These basins currently receive storm water from Etiwanda Creek. A concrete box inlet from Etiwanda Creek delivers water to the first pond and each subsequent pond is connected by a rock spillway or gate. These spillways and gates are currently in poor condition. An outlet releases surface water from the tenth basin back into Etiwanda Creek through a concrete box culvert that extends southwest beneath Etiwanda Avenue back into Etiwanda Creek.

The proposed improvements to the Etiwanda Conservation Ponds are shown on Figure 17 and include:

- To provide sufficient imported water capacity at the Etiwanda Conservation Ponds, the existing turnout on the Rialto Pipeline (CB-14T) will be expanded. Note that this proposed turnout will also serve both the Etiwanda Spreading Basins and the Victoria Basin with sufficient imported water flow to the recharge basins. These improvements are typically simple connections to the Rialto Pipeline that will provide a connection to imported water that can be released from the imported water pipeline to the channel.
- A new inlet, consisting of two 48-inch storm drains will be installed. This inlet will connect from Etiwanda Creek to the ponds, allowing the ponds to operate as a flow through facility.
- The ponds will be deepened and their geometry optimized to facilitate percolation of storm water and imported water. An estimated 161,000 cubic yards of material will be removed from the ponds to reshape and deepen them. All changes in the ponds will be within the existing boundaries of the ponds.
- Outlets and spillways between the ponds will be modified or new ones will be installed.
- The existing outlet structure will be expanded and modified.

Once the improvements are in place, the Etiwanda Conservation Ponds operations will be modified as follows:

- Current estimated storm water recharge capacity is -0- AFY. If the proposed improvements to the Etiwanda Conservation Ponds is approved and implemented, it is estimated that from 800-1,100 AFY of storm water can be recharged.
- Historically, no imported water recharge has been recharged at the Etiwanda Conservation Ponds and future recharge of imported water is forecast to range from 3,900-5,800 AFY. Note that the total value of recharge at each facility has been estimated by the Watermaster in the Phase II Recharge Master Plan based on size of the basin, configuration, and boring tests to determine the daily percolation rate, which is estimated to be about 1.0 foot/day for the Etiwanda Conservation Ponds.
- The Flood Control District will continue to operate and maintain the Etiwanda Conservation Ponds. Additional management requirements due to the modified recharge proposal include: more effort at managing vegetation due to the longer presence of water; and greater efforts to control midges and mosquitos due to presence of imported water during the summer months.

The total area of disturbance required to support this proposed project's modifications to the Etiwanda Spreading Basins is forecast to be about 2 acres. The Watermaster indicates that the above modifications will require about four months to construct if excavation activities are implemented through contract. The Watermaster may allow the material to be excavated by local contractors on an as-needed basis. This could result in the excavation activities being extended over one or two years based on the experience of the SBCFCD, which sells material from its flood control basins throughout the County. Under this scenario it is assumed that less than an acre of disturbance would exist within the Banana Basin at any given time while excavation is underway.

- **Jurupa Basin**

The Jurupa Basin is located in Management Zone No. 3 and is owned by the SBCFCD. It encompasses approximately 39 acres. See Figure 18. The Jurupa Basin is currently operated and maintained by the District, primarily in support of local flood control management. This basin currently receives storm water from the San Sevaine Channel, which flows into the northwest corner of the basin via a concrete inlet. In addition, five storm water runoff inlets are located along the north side of the basin. Three low-flow outlet deliver flows back into the San Sevaine Channel. In addition, a concrete overflow spillway runs underneath Jurupa Avenue and into San Sevaine Channel.

The proposed improvements to the Jurupa Basin are shown on Figure 18 and include:

- To provide sufficient imported water capacity at the Jurupa Basin, a new turnout will be installed at the Etiwanda Forebay to deliver water to the Jurupa Basin. This turnout will ultimately provide imported water to Hickory, Banana, Declez, Jurupa, and the RP-3 Basins.
- A new 5,000 foot long pipeline will be extended from the turnout within existing road rights-of-way to deliver imported water to the Jurupa Basin.
- An internal berm will be constructed within the basin to optimize percolation of storm water and imported water. All changes in the basin will be within the existing boundaries of the basin.
- The outlet will be modified to provide for additional conservation storage.

Once the improvements are in place, the Jurupa Basin operations will be modified as follows:

- Current estimated storm water recharge capacity is -0- AFY. After the modifications have been completed, the estimated recharge capacity will be increased to 600-700 AFY.
- No imported water is presently recharged at this facility and future recharge of imported water is forecast to range from 800-1,200 AFY. Note that the total value of recharge at each facility has been estimated by the Watermaster in the Phase II Recharge Master Plan based on size of the basin, configuration, and boring tests to determine the daily percolation rate, which is estimated to be 0.1 foot/day for the Jurupa Basin.
- Nuisance urban runoff flows may be diverted into this basin for percolation, which is estimated to account for about 10 acre-feet of the total storm runoff volume recharged in the basin.
- The Flood Control District will continue operate and maintain the Jurupa Basin under an agreement with the Watermaster. In order to allow this facility to be used for greater conservation purposes, a detailed operating agreement must first be implemented between the Watermaster and SBCFCD. All parties are aware that conservation objectives can only be implemented after flood control responsibilities are fulfilled. Additional management requirements due to the modified recharge proposal include: more effort at managing vegetation due to the longer presence of water; and greater efforts to control midges and mosquitos due to presence of imported water during the summer months.

The total area of disturbance required to support these modifications is forecast to be less than about 2 acres total. The Watermaster indicates that the above modifications will require about four months to construct.

- **Wineville Basin**

The Wineville Basin is located in Management Zone No. 3 and is owned by the SBCFCD. It encompasses approximately 36 acres. See Figure 19. The Wineville Basin is currently operated and maintained by the District, primarily in support of local flood control management. This basin currently receives storm water from three sources: a concrete ramp on the northeast side of the basin receives flows from Day Creek through a concrete ramp inlet. Flows from Etiwanda Channel enter the basin through a concrete ramp inlet on the east side of the basin. A small concrete inlet at the northwest corner of the basin receives storm flows from the local runoff. Two outlets on the south side of the basin (a low-flow pipe and an overflow spillway) deliver flows to the Lower Day Creek Channel.

The proposed improvements to the Wineville Basin are shown on Figure 19 and include:

- The basin will be deepened and its geometry optimized to facilitate percolation of storm water and imported water. An estimated 112,000 cubic yards of material will be removed from the basin to reshape and deepen it. All changes in the basin will be within the existing boundaries of the basin.
- A geotechnical investigation will be conducted to assess the stability of the basin sides.
- The outlet works will be modified to provide for additional conservation storage in the basin.
- To provide sufficient imported water capacity at the Wineville Basin, a new turnout will be installed on the Rialto Pipeline to deliver flows to Day Creek Channel. This turnout will also provide an imported water supply to the Lower Day Basin.
- A new 4,000-foot long pipeline will be extended from the existing Metropolitan Water District turnout to the Basin, with the last 300 feet consisting of a long bore and jack under Highway 30 and the Day Creek Channel. The pipeline will be installed within existing Channel right-of-way to deliver imported water to the Lower Day Creek Basin, and ultimately to Wineville Basin.

Once the improvements are in place, the Wineville Basin operations will be modified as follows:

- Current estimated storm water recharge capacity is 0- AFY. After the modifications have been completed, the estimated recharge capacity will range from 500-700 AFY.
- No imported water is presently recharged at this facility and future recharge of imported water is forecast to range from 700-1,100 AFY. Note that the total value of recharge at each facility has been estimated by the Watermaster in the Phase II Recharge Master Plan based on size of the basin, configuration, and boring tests to determine the daily percolation rate, which is estimated to be 0.5 foot/day for the Wineville Basin.
- Nuisance urban runoff flows may be diverted into this basin for percolation which is estimated to account for about 10 acre-feet of the total storm runoff volume recharged in the basin.
- The Flood Control District will continue operate and maintain the Wineville Basin under an agreement with the Watermaster. In order to allow this facility to be used for greater conservation purposes, a detailed operating agreement must first be implemented between the Watermaster and SBCFCD. All parties are aware that conservation objectives can only be implemented after flood control responsibilities are fulfilled. Additional management requirements due to the modified recharge proposal include: more effort at managing vegetation due to the longer presence of water; and greater efforts to control midges and mosquitos due to presence of imported water during the summer months.

The total area of disturbance required to support these modifications is forecast to be less than about 10 acres at any given time at the bottom of the basin. The Watermaster indicates that the above modifications will require about four months to construct, if excavation activities are implemented through contract. The Watermaster may allow the material to be excavated by local contractors on an as-needed basis. This could result in the excavation activities being extended over one or two years based on the experience of the SBCFCD, which sells material from its flood control basins throughout the County. Under this scenario it is assumed that less than an acre of disturbance would exist within the Wineville Basin at any given time while excavation is underway.

- **College Heights Basins**

The proposed College Heights Basins are located in Management Zone No. 1 and are owned by the CBWCD. These two basins encompass approximately 22 acres, about 11 acres each. See Figure 20. The College Heights Basins would occupy quarries that are either abandoned or nearing the end of their useful life. These quarries are not currently being used for flood control or recharge purposes. There are not inlets or outlets in these basins at this time.

The proposed improvements to the College Heights Basins are shown on Figure 20 and include:

- A diversion structure will be installed in San Antonio Creek Channel, which would deliver water to both Basins, which are located immediately adjacent, east and west, of the channel.
- Outlet structures, one to the San Antonio Creek Channel and the other to the Upland Basin located to the south, would be installed.
- Optimize the recharge in the basins by reconfiguring the bottoms, an estimated 500,000 cubic yards of material will be removed from the basins to reshape and deepen them. All changes in the quarries will be within the existing boundaries of the basins.

Once the improvements are in place, the College Heights Basins operations will be modified as follows:

- Current estimated storm water recharge capacity is 0 AFY. After the modifications have been completed, the estimated recharge capacity will range from 70-100 AFY.
- No imported water has been recharged at the proposed College Heights Basins. The future recharge of imported water is forecast to range 5,300-7,900 AFY. Note that the total value of recharge at each facility has been estimated by the Watermaster in the Phase II Recharge Master Plan based on size of the basin, configuration, and boring tests to determine the daily percolation rate, which is estimated to be 2.5 feet/day for the proposed College Heights Basins.
- Nuisance urban runoff flows may be diverted into these basins for percolation which is estimated to account for about 10 acre-feet of the total storm runoff volume recharged in the basins.
- The Flood Control District will operate and maintain the College Heights Basins under an agreement with the CBWCD. Additional management requirements due to the modified recharge proposal include: more effort at managing vegetation due to the longer presence of water; and greater efforts to control midges and mosquitos due to presence of imported water during the summer months.

The total area of disturbance required to support these modifications is forecast to be less than about five acres at any given time at the bottom of the basins. The Watermaster indicates that the above modifications will require about eight months to construct, if excavation activities are implemented through contract. The CBWCD indicates that it may allow the material to be excavated by local contractors on an as-needed basis. This could result in the excavation activities being extended over one or two years based on the experience of the SBCFCD, which sells material from its flood control basins throughout the County. Under this scenario it is assumed that

less than an acre of disturbance would exist within the proposed College Heights Basins at any given time while excavation is underway.

- **RP-3 Basin**

The IEUA is already investigating this proposed basin. Because it involves the possibility of mobilizing groundwater with high concentrations of nitrates, the RP-3 Basin will not be included in this evaluation. It will be subject to a separate environmental evaluation and document when a decision is made regarding the total amount of recharge and the mix of recharge components. Therefore, this Basin will not be given further consideration in this Initial Study. Proposed improvements to this Basin are shown on Figure 21.

4. Cumulative Basin Improvements

This environmental document is considering the potential environmental impacts from modifying 18 recharge or spreading basins (not 20, as the Turner 1 and RP-3 Basins will not receive further consideration in this document) to enhance the ability of these basins to recharge more storm water and more imported water. Over the next five years, it is assumed that the following physical changes will be made:

- Inlets and outlets at almost all of the basins will be installed and/or modified to allow site specific management of the basins to enhance recharge of storm water and imported water
- An estimated total of 13,500 lineal feet of new pipeline will be installed to convey imported water to basins or to channels where it can be delivered to the 18 basins. It is assumed that a maximum of 5,000 lineal feet of pipeline will be installed in any given year, which will provide imported water from turnouts directly to Lower Day and to West Cucamonga Channel.
- The maximum total area under disturbance at any given point during any single year is estimated to be 26.5 acres (based on the first ten basins being implemented during a given year) and assuming the acreages of disturbance outlined above.
- Excluding the College Heights Basins (500,000 cubic yards), the total amount of excavation that will be conducted in support of the proposed recharge basins is 1,498,000 cubic yards. For purposes of analysis in this document it is assumed that 20% of this total will be under excavation during any given year, or ~300,000 cubic yards. Note that this is considered to be a conservative value since much of the excavation is anticipated to be carried out in small increments by individual contractors, as opposed to comprehensive excavation contracts. Further, due to the large volume of excavation at the College Heights Basins, CBWCD may proceed with a mining operation to remove the material which would require a separate environmental review and permit from San Bernardino County.
- For almost all of the basins, an operation and management agreement will be developed between the SBCFCD, CBWCD and the Watermaster. This to ensure that no conflicts occur between flood control management objectives and water conservation efforts at each basin.
- The total maximum volume of water that could be recharged in these basins is 155,800 AFY, storm water = 23,700 AFY and imported water = 122,100 AFY. See Table 1 for details.

The above cumulative values will be used in comparing the impacts of implementing these recharge projects to that envisioned in the OBMP PEIR.

4. Procedural Considerations

As previously stated, the Inland Empire Utilities Agency certified and adopted a Program Environmental Impact Report (PEIR) for the Optimum Basin Management Program (OBMP) in July 2000. This PEIR addressed this proposed project as part of a larger, integrated program, of water resources management for the Chino Groundwater Basin. Among other elements, the PEIR evaluated the impact of expanded groundwater recharge programs in the Chino Groundwater Basin, including specific recharge at the basins summarized above. The PEIR evaluated the impact of increasing groundwater recharge at the proposed project recharge basins by approximately 100,000 AFY. Implementation of all the above projects would increase groundwater recharge at these basins by up to about 70,000 AFY over the long-term. These site specific projects may, therefore, be considered a second tier project under the existing certified PEIR. On behalf of the participating agencies the IEUA must determine whether the proposed project results in new significant impacts not evaluated in the PEIR and must decide what CEQA environmental determination to make if it chooses to approve the proposed project.

A program EIR is used when a project consists of a program that will entail a series of future actions or specific construction projects which can be characterized as a large project, such as a groundwater management plan over a large geographical area. A program EIR describes the broad program objectives and facilities and evaluates the cumulative impact of implementing the total project over a period of time with all its elements. Under this programmatic concept, future individual actions are reviewed in the context of the program EIR findings. These future individual actions may include specific well, pipeline, and recharge projects analyzed as part of a whole multifaceted program in the program EIR. Where activities or facilities being implemented in the future fall within the scope of impacts identified for the program, in this case the OBMP PEIR, later environmental studies can be minimized through elimination of specific environmental issues deemed to be insignificant during the earlier stage of environmental review or through finding that the environmental impact analysis in the program EIR was sufficient to fully address significant impacts.

The PEIR provides a baseline and cumulative environmental evaluation and determination for the activities permitted under the OBMP, which includes desalters, wells, recharge basins, conjunctive use, pipelines, and groundwater monitoring. Later activities are then reviewed for consistency with the plan evaluated in the PEIR, which allows "tiering" of any future environmental review as provided in Sections 15152 and 15385 of the State CEQA Guidelines, if subsequent environmental review is required (Section 15162, CEQA Guidelines). Existing conditions used to make impact forecasts in this Initial Study are assumed to be the same as those in the PEIR, as the analysis presented in this Initial Study will be completed within one year of the certification of the PEIR.

Section 15162 of the State CEQA Guidelines states: *(a) When an EIR has been certified or a negative declaration adopted for a project, no subsequent EIR shall be prepared for that project unless that lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:*

- (1) *Substantial changes are proposed in the project which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;*

- (2) *Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or*
- (3) *New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the Negative Declaration was adopted, shows any of the following:*
 - (A) *The project will have one or more significant effects not discussed in the previous EIR or Negative Declaration;*
 - (B) *Significant effects previously examined will be substantially more severe than shown in the previous EIR;*
 - (C) *Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternatives; or*
 - (D) *Mitigation measures or alternatives previously which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

Section 15163 requires a supplement to an EIR in the following circumstances:

- (a) *The Lead or Responsible Agency may choose to prepare a supplement to an EIR rather than a subsequent EIR if;*
 - (1) *Any of the conditions described in Section 15162 would require the preparation of a subsequent EIR, and*
 - (2) *Only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation.*

Determining consistency with the certified PEIR encompasses two tests. The first test entails a reevaluation of the plans for the implementation of the proposed project with all of the environmental issues addressed in the PEIR. An analysis of each of the environmental issues is presented in this Initial Study which compares the proposed effects from excavation, grading, construction, and operation of the proposed project with the facts and findings of the PEIR. To facilitate this process, the IEUA hereby incorporates the certified PEIR for the Optimum Basin Management Plan (SCH #2000041047, July 12, 2000) as part of this Initial Study. As is permitted by Section 15150 of the State CEQA Guidelines, the PEIR is incorporated by reference into this Initial Study. The required summaries of the pertinent data for all issues are provided in the Initial Study evaluation which follows. Copies of the PEIR are available at the Inland Empire Utilities

Agency, 9400 Cherry Avenue, Bldg. A, Fontana, CA 92335 and for download at the Watermaster's website (www.cbwm.org).

The second test that may be used to determine whether a second tier project falls within the scope of a program EIR is to determine whether new circumstances or reassessment of previously identified impacts may result in new significant impacts. As the text in Sections 15162(a) indicates, "no subsequent EIR shall be prepared for that project unless that lead agency determines, on the basis of substantial evidence in light of the whole record, one or more of the following:" (Paraphrases of the State CEQA Guidelines follow)

1. Substantial changes in the project that may cause new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
2. Substantial changes occur with respect to the circumstances under which the project is undertaken and which may result in new significant environmental effects or substantial increase in the severity of previously identified significant effects; or
3. New information of substantial importance shows the project will have one or more significant effects not previously discussed. (See specific project description)

These tests will be applied to the proposed project and a determination made regarding the appropriate CEQA procedure to implement for the proposed project. To comply with CEQA and the CEQA Guidelines, this Initial Study is being prepared to determine if environmental impacts of the proposed project were encompassed by the impact analyses contained in the PEIR prepared for the Optimum Basin Management Plan. Based on the evaluation provided in this Initial Study, the CEQA Lead Agency, Inland Empire Utilities Agency, will make one of the following determinations:

- The proposed project's environmental effects were encompassed by the environmental evaluation in the PEIR. No new significant impacts or a substantial increase in the severity of previously identified significant effects beyond those evaluated and mitigated in the PEIR will result from implementing this project. No further environmental review or determination is required.
- The project and associated impacts fall within the scope of impacts identified for the program. However, due to more detailed, project-specific information not available at the time the PEIR was prepared, impacts and mitigation not addressed in that document are identified in the Initial Study. Adequate measures, however, are provided in the Initial Study to mitigate potential impacts to a level of less than significant and a Negative Declaration is the appropriate CEQA determination.
- The project requires some changes and/or additions to clarify impacts under current conditions but none of the current conditions described in Section 15162 calling for the preparation of a subsequent EIR have occurred. Under this circumstance, an Addendum to a previously certified EIR can be prepared and adopted.
- The Initial Study identifies potential impacts that fall outside the impact forecast in the PEIR and since such impact(s) cannot be mitigated below a less than significant level, a subsequent EIR must be prepared.

The Initial Study Environmental Checklist Form follows.

INITIAL STUDY ENVIRONMENTAL CHECKLIST FORM

This form and the descriptive information in the application package constitute the contents of an Initial Study pursuant to Section 15063 of the State CEQA Guidelines.

PROJECT DESCRIPTION:

1. Project title: Implementation of Storm Water and Imported Water Recharge at 20 Recharge Basins in Chino Basin

2. Lead agency name and address: Inland Empire Utilities Agency
9400 Cherry Avenue, Bldg. A
Fontana, CA 92335

3. Contact person and phone number: Richard W. Atwater, General Manager
(909) 357-0241

4. Project location: The proposed project encompasses recharge basins throughout the Chino Basin, extending from Upland on the west, San Gabriel Mountains on the north, Fontana on the east and the Riverside County line on the south. The locations of the individual recharge basins are identified in the detailed project description which precedes this page. Please refer to Figure 1, Regional Location Map.) USGS 7.5' Quadrangle Topographic Maps include: Cucamonga Peak, Mt. Baldy, Devore, Ontario, Guasti and Fontana, all in southwestern San Bernardino County

5. Project sponsor's name and address: Inland Empire Utilities Agency
9400 Cherry Avenue, Bldg. A
Fontana, CA 92335

Chino Basin Water Conservation District
4594 San Bernardino Street
Montclair, CA 91763-0900

San Bernardino County Flood Control District
825 East Third Street
San Bernardino, CA 92415-0835

Chino Basin Watermaster
8632 Archibald Avenue, Suite 109
Rancho Cucamonga, CA 91730

6. **Description of project:** (Describe the whole action involved, including but not limited to later phases of the project, and any secondary support, or offsite features necessary for its implementation. Attach additional sheets if necessary.)

Please refer to the detailed project description that precedes this section of the Initial Study. The project proposed for implementation is the physical modification of 17 existing recharge basins and of two abandoned quarries to increase the volume of storm water and imported water that can be recharged into the Chino Basin. The total potential volume of water proposed for recharge on an annual basis could range from 92,290-133,700 acre-feet, depending on storm water flows and availability of imported water from the State Water Project. Of this total, the potential storm water recharge capacity could range from 16,890-21,100 AFY. The Potential imported water recharge capacity could range from 75,400-112,500 AFY.

Over an estimated period of five years, the physical modifications in the Chino Basin is proposed to include: installation of 15,500 lineal feet of new pipeline; average annual ground disturbance of 26.5 acres; a total of 1,498,000 cubic yards are proposed to be excavated from the existing basins over the five year period, or an average of ~300,000 cubic yards; up to 500,000 cubic yards of will be excavated from the quarries that are proposed to be converted into the College Heights Basins, but it is anticipated that this material will be removed as part of a proposed mining program, which must undergo a separate environmental review with the County after a Surface Mining and Reclamation Act mining and reclamation plan are compiled. In addition to modifications at most basins for inlet and outlet structures, an operating and maintenance agreement must be established between the Watermaster, CBWCD and the SBCFCD.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- | | | |
|--|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology / Soils |
| <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology / Water Quality | <input type="checkbox"/> Land Use / Planning |
| <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise | <input type="checkbox"/> Population / Housing |
| <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation / Traffic |
| <input type="checkbox"/> Utilities / Service Systems | <input type="checkbox"/> Mandatory Findings of Significance | |

ENVIRONMENTAL DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation, the following finding is made:

- The proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- Although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- The proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- The proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it may analyze only the effects that remain to be addressed.
- Although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, no further environmental documentation is required.

Signature (prepared by)

Date

Signature

Date

Potentially Significant Less than Significant with Less than Significant No

I. AESTHETICS – Would the project:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|--------------------------|
| a. Have a substantial adverse effect on a scenic vista? | <input type="checkbox"/> | <input type="checkbox"/> | X | <input type="checkbox"/> |
| b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | X |
| c. Substantially degrade the existing visual character or quality of the site and its surroundings? | <input type="checkbox"/> | <input type="checkbox"/> | X | <input type="checkbox"/> |
| d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | X |

SUBSTANTIATION

The general impacts to aesthetic and visual resources of the overall groundwater recharge program, of which the proposed project is a part, are forecast in Section 4.15 on pages 4-437 to 4-444 of the OBMP PEIR. The PEIR determined that implementation of the OBMP could cause significant adverse impacts on scenic vistas, on scenic resources, on visual quality of project areas and on night conditions due to creating night light and glare. Depending upon the type of facilities being implemented, mitigation was identified to reduce aesthetic impacts from OBMP implementation to a level of nonsignificance. The PEIR concluded that aesthetic impacts from OBMP implementation would not be significant and adverse, and for some projects mitigation would have to be implemented to achieve this level of impact.

a. The proposed project consists of installation of pipelines below ground, the modification of existing basins, or in one case abandoned quarries, and the recharge of larger volumes of water in these basins that currently occurs. All of these new facilities will be below ground, below existing grades or at existing grade, so no potential to significantly modify existing scenic vistas can occur from implementing the proposed project. No mitigation will be required to address the project’s impacts on scenic vistas.

b. The proposed project sites are highly disturbed, most having periodically been used as a groundwater recharge area over the last thirty years, or mined for sand and gravel in the past. There are no rock outcroppings, trees, or other features that would be considered scenic resources at these recharge basin sites. After construction, the use and appearance of pipeline alignments and the recharge basin facilities will have essentially the same visual impact as the existing visual settings. Therefore, the visual character of the proposed pipeline alignments will not be permanently disturbed, nor with the existing recharge basins be noticeably changed to the public. There may be a visual benefit realized from implementing the proposed project due to the addition of some landscaping at the recharge basins. Mitigation measures 4.15-1, 4.15-4, and 4.15-5, listed on pages 4-443 and 4-444 of the OBMP PEIR will be implemented, where applicable.

c. Please refer to a and b.

d. The proposed project does not include any new source of substantial light or glare. The project consists of pipelines, recharge basin modifications, and modifications to inlets, outlets and turnouts. None of these features include a requirement for significant night lighting. Additionally, mitigation measure 4.15-6 listed on page 4-444 of the OBMP PEIR will be implemented, where applicable.

Conclusion

Based on the analysis presented above, aesthetic and visual resources will not experience significant adverse impacts from project implementation. The proposed aesthetics impacts remain consistent with the findings of the OBMP PEIR. Implementation of the proposed project does not pose a substantial change in the conclusions presented in the OBMP PEIR regarding aesthetic impacts.

No new, project specific aesthetic effects have been identified that were not identified and analyzed in the OBMP PEIR. The overall analysis in the Initial Study verifies the conclusions in the Program EIR. Finally, no substantial changes have occurred which may cause new, significant adverse aesthetic effects from implementing this second tier project. After implementing mitigation measures 4.15-1, 4.15-4, 4.15-5, and 4.15-6 listed on pages 4-443 and 4-444 of the OBMP PEIR, where applicable, the impacts from implementing the proposed project are concluded to remain within the scope of analysis and findings contained in the PEIR and no further environmental analysis is required.

Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
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II. AGRICULTURE RESOURCES – In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:

- | | | | | | |
|----|---|--------------------------|--------------------------|--------------------------|---|
| a. | Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | X |
| b. | Conflict with existing zoning for agricultural use, or a Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | X |
| c. | Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | X |

SUBSTANTIATION

The general impacts to agricultural resources of the overall groundwater recharge program, of which the proposed project is a part, are forecast in Section 4.2 pages 4-3 to 4-26 of the OBMP PEIR. Those facilities with a potential to have a direct adverse impact on agricultural resources did not include pipelines, turnouts or existing recharge basins. Indirect impacts to agricultural resources were forecast not to be significant from implementing OBMP projects, because projects that result in cleaning groundwater and enhancing safe yield were determined to benefit both agricultural operations and urban development. Mitigation measures were identified to reduce potential direct impacts on agricultural resources. The PEIR concluded that potential agricultural resource impacts from OBMP implementation would not be significant and adverse, and for some projects mitigation would have to be implemented to achieve this level of impact.

- a. The proposed project sites are existing groundwater recharge basins, roads or already disturbed areas which have been used during the last approximately 30 to 50 years for water conservation, flood control or

infrastructure corridors. As such, no farm land would be converted from agricultural use by the proposed project.

b. Please refer to response a. All of the sites are either designated open space, flood control, or road right-of-way. None of the project areas are encumbered by Williamson Act contracts. No potential for conflict with any agricultural land use designations or constraints can occur from implementing the proposed project.

c. The proposed project will serve as part of an overall program (OBMP) to manage the existing water resources in the Chino Basin. Uses of the Basin's water resources include agricultural uses. The land uses surrounding the proposed project site are transportation, flood control, industrial, vacant land, residential and some agriculture. No agricultural land uses in the Basin can be adversely impacted by a project that enhances water supplies within the Basin. By serving as one of the positive components of a future adequate water supply for the whole Basin, this project can be considered a positive benefit to agricultural use, and all other uses.

Conclusion

Based on the analysis presented above, agricultural resources will not experience significant adverse impacts from project implementation. The proposed agricultural impacts remain consistent with the findings of the OBMP PEIR. Implementation of the proposed project does not pose a substantial change in the conclusions presented in the OBMP PEIR regarding agricultural resources impacts.

No new, project specific agricultural effects have been identified that were not identified and analyzed in the OBMP PEIR. The overall analysis in the Initial Study verifies the conclusions in the PEIR. Finally, no substantial changes have occurred which may cause new, significant agricultural resources effects from implementing this second tier project. Some farms have been converted to residential uses in the interim, but the core agricultural areas remain functional. The impacts from implementing the proposed project are concluded to remain within the scope of analysis and findings contained in the PEIR and no further environmental analysis is required.

Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
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III. AIR QUALITY – Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

- | | | | | | |
|----|--|--------------------------|--------------------------|--------------------------|--------------------------|
| a. | Conflict with or obstruct implementation of the applicable air quality plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | X |
| b. | Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | <input type="checkbox"/> | <input type="checkbox"/> | X | <input type="checkbox"/> |
| c. | Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? | <input type="checkbox"/> | <input type="checkbox"/> | X | <input type="checkbox"/> |
| d. | Expose sensitive receptors to substantial pollutant concentrations? | <input type="checkbox"/> | <input type="checkbox"/> | X | <input type="checkbox"/> |
| e. | Create objectionable odors affecting a substantial number of people? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | X |

SUBSTANTIATION

The general impacts to air quality resources from implementing the OBMP, of which the proposed project is a part, are forecast in Section 4.6 on pages 4-270 to 4-295 of the OBMP PEIR. In evaluating potential construction emission impacts, detailed calculations of pipeline emissions are provided on pages 4-283 and 4-286. Emissions from ground disturbance from projects such as desalters and recharge basins were addressed based on comparison to the South Coast Air Quality Management District “CEQA Air Quality Handbook” thresholds of 177 acres disturbed per quarter. With implementation of mitigation measures, construction air quality impacts were determined to be not significant. Operational emissions from pumps, energy production and electricity consumption were determined to be significant, primarily due to the large amount of electricity required to move water and recycled water from the ground or from desalters to users. These impacts are described on pages 4-292 through 4-294. Mitigation measures are identified to reduce operational impacts, but they were not considered sufficient to reduce emissions below SCAQMD thresholds.

a. The Southern California Association of Governments (SCAG) is responsible for ensuring compliance with the Clean Air Act. The South Coast Air Quality Management District (SCAQMD) and SCAG are responsible for air quality planning in the Basin and have developed an Air Quality Management Plan (AQMP). Consistency with the AQMP is determined by comparing the proposed project with regional (SCAG) and local (general plan) growth forecasts. This project does not propose to alter land use designations or increase development densities allowed by any land use jurisdiction within the Chino Basin. Therefore, the proposed project has no potential to impact this issue.

b. The proposed project is located in the South Coast Air Basin (SoCAB). The SCAQMD has jurisdiction over air quality issues within the Basin. The SoCAB is currently a non-attainment basin for three of six criteria

pollutants utilized to determine attainment of natural ambient air quality standards (ozone, particulates and carbon monoxide, the latter only in highly urbanized areas). Ambient concentrations of nitrogen dioxide are currently in attainment within the SoCAB. Overall, the air quality setting in the SoCAB is considered to be the same in 2002 (when construction will begin on the proposed projects) as it was in 2000 when the OBMP PEIR was certified.

The proposed project consists of installing a total of 13,500 lineal feet of pipeline within the Chino Basin over a five year period; disturbance of a maximum of 26.5 acres in a given year as part of excavating up to 300,000 cubic yards of material per year; and installation of small concrete structures (inlets, outlets, and turnouts) that whose area of disturbance is included in the 26.5 acre value provided above. At this point in time, no other pipelines are forecast to be constructed in support of the OBMP during the latter part of 2002 when funding will allow the individual projects to be implemented.

Based on the the construction related annual impacts of the OBMP, including the proposed project, the proposed project's impacts are forecast to be well below the SCAQMD's quarterly thresholds of significance for all criteria pollutants with mitigation. Pipeline construction (estimated 5,000 feet in one year) will be well below the annual length of pipeline installed identified on page 4-283; and the amount of area disturbed in support of recharge basin operations is forecast to be about 26.5 acres, well below the quarterly threshold of 177 acres identified in the SCAQMD Handbook and OBMP evaluation. The excavation of soil from individual recharge basins is proposed to occur over a several month period of time as material is excavated under material removal contracts. Further, construction impacts will be minimized with application of the mitigation measures 4.6-1 through 4.6-5 in the OBMP PEIR.

No operation emissions are forecast to occur since operations consist of capturing storm water or imported water under gravity flow conditions and allowing it to recharge within the basin. Some of the equipment at the recharge basins (such as SCADA) may require electricity connections, but demand for electricity by these project is not forecast to exceed a few hundred kilowatts at each recharge basin. Total demand is forecast to be less than that for two or three homes, which is *de minimis* and will not contribute to significant operational impacts.

c. Please refer to discussion under issues 3.a and 3.b above. Emissions from implementing the proposed project fall below the thresholds of significance in the SCAQMD CEQA Handbook, with implementation of the above mitigation measures.

d. There could be short-term nuisance impacts to air quality from recharge basin excavation activities. However, these potential impacts will be controlled to a less than significant level with application of the mitigation measures 4.6-1 through 4.6-5 in the OBMP PEIR.

e. No objectionable odors or toxic emissions will be associated with the construction or operation of the proposed project.

Conclusion

Based on the analysis presented above, air quality resources will not experience significant adverse impacts from project implementation, nor will the identified emissions be greater than those forecast in the OBMP PEIR. The proposed air quality impacts remain consistent with the findings of the OBMP PEIR. Implementation of the proposed project does not pose a substantial change in the conclusions presented in the OBMP PEIR regarding air quality impacts.

No new, project specific air quality effects have been identified that were not identified and analyzed in the OBMP PEIR. The overall analysis in the Initial Study verifies the conclusions in the PEIR. Finally, no substantial changes have occurred which may cause new, significant adverse air quality effects from implementing this second tier project. After implementing the mitigation measures 4.6-1 through 4.6-5 listed on page 4-294 of the OBMP PEIR, the impacts from implementing the proposed project are concluded to

remain within the scope of analysis and findings contained in the PEIR and no further environmental analysis is required.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES – Would the project:				
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X

SUBSTANTIATION

The general impacts to biological resources of the overall groundwater recharge program, of which the proposed project is a part, are forecast in Section 4.8 on pages 4-308 to 4-336 of the OBMP PEIR. The Chino Basin contains significant remaining biological resources, including both upland and riparian and aquatic communities. All of the significant biological resources are found within natural communities located or slightly disturbed areas located throughout the region. Major species of concern include: San Bernardino kangaroo rat; Delhi sands giant flower-loving fly; coastal California gnatcatcher; the Santa Ana sucker; and several bird species in the Prado riparian habitat, including the least Bells vireo. A potential for significant adverse direct and indirect biological resource impacts were identified from implementing the OBMP. Direct impacts where proposed facilities affect habitat essential for listed or sensitive species and indirect impacts

if overall management of the Basin adversely impacts riparian resources or water quality of aquatic habitat through groundwater management actions. Specific mitigation measures were identified, including where necessary, acquisition of incidental take permits when directly impacts sensitive species. Overall impacts to biological resources were identified as being nonsignificant with implementation of these measures, including Basin-wide management to balance water production and recharge.

a. The proposed project sites are all disturbed by historic topographic modifications to create the recharge basins and quarries and ongoing management activities to preserve flood control and recharge function of these basins. All except the College Heights quarries have been utilized for flood control or groundwater recharge purpose for about 30 years or more. In accordance with this off-line recharge utilization, the recharge basins are annually maintained to control the presence of vegetation, debris, or sediment accumulations. Such accumulations reduce storage capacity and retard percolation. Periodically, stored water may serve as a resting place for migratory birds, but the none of the Basin management agencies maintain surface water permanently in their recharge basins and there is no intent to maintain permanent surface water in the recharge basins. Since there is no suitable habitat in the recharge basin to sustain any listed or special status plant or animal species, none of the mitigation measures identified in the OBMP PEIR will be required to reduce the impact of the proposed project in this area to a less than significant level.

b. The proposed project sites are disturbed and have periodically been utilized for flood control and groundwater recharge for more than 30 years. Riparian plants can grow in the basins, but ongoing mechanical and chemical treatment is implemented to control such growth to maximize the amount of storm water that can be stored or recharged to the groundwater aquifer. Without such vegetation controls, riparian plants can substantially reduce basin storage capacity and groundwater recharge through evapotranspiration. Based on the current and proposed operation and management programs at all of the 18 basins proposed for modification, no significant riparian resources will be impacted by implementing the proposed project because such resources will not be allowed to establish and maintain themselves. None of the mitigation measures outlined in the OBMP PEIR are required to be implemented for the proposed project as no potential adverse impact to riparian habitat or resources is forecast to occur if the project is implemented.

c. The proposed project sites consist of existing recharge basins, roads or road rights-of-way, or abandoned quarries that are highly disturbed. The 18 basins are utilized for storage of storm runoff to reduce flood hazards and for groundwater recharge and this use have been in place for more than 30 years for most of the basins. These facilities are all man-made water basin. The water flow into the basin is regulated by the basin owners, which primarily consist of the CBWCD and San Bernardino County Flood Control. The existing basin management system is in place to ensure that recharge basins do not overflow in the event of a significant flood event (both the inlet and the outlet systems are available to manage flows into the system and prevent exposure to large flood events, including the 100-year storm, at all of the basins presently being used for flood control purposes). Note, some basins, such as Upland Basin, are not used for flood control purposes. All of these recharge basins are totally isolated from ordinary flows (typically the two-year storm event). As noted above, the recharge basins are maintained free of vegetation. Therefore, under normal circumstances, the recharge basins do not contain hydrophytic vegetation typically associated with wetlands.

The U. S. Army Corps of Engineers, 33 CFR Part 328 Section 328.3 'generally do not consider the following waters to be "Waters of the United States" ':

- 1) Non-tidal drainage and irrigation ditches excavated on dry land;
- **Artificial lakes or ponds created by excavating or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation settling basins, or rice growing;** (Emphasis added)
- Artificial reflecting or swimming pools or other small ornamental bodies of water....primarily aesthetic; and
- Water depressions created in dry land incidental to construction activity.

More recently, in the federal Supreme Court Decision, *Solid Waste Associates of Northern Cook Counties v. United States Corps of Engineers (SWANCC)* issued on January 9, 2001, the Supreme Court held that the Corps could not extend its jurisdiction to isolated waters or wetlands based solely upon the use of such waters by migratory water fowl. Because these project basins do not have any ordinary hydrological connection with another "Water of the United States" (thereby being isolated, the proposed recharge basins are not subject to Corps jurisdiction under Section 404 of the Clean Water Act).

Relative to the California Department of Fish and Game (CDFG), it takes jurisdiction over water flow areas, i.e., streams. These water flow areas are identified in the California Code as follows:

"...natural flow or bed, channel or bank of any river, stream or lake designated by the Department in which there is at any time an existing fish or wildlife resource or from which these resources derive benefit or will use material from the streambeds..."

Although river is never defined in the Fish and Game Code, a river is defined by Webster as: "A natural stream of water larger than a creek and emptying into an ocean, lake or another river." Further, Webster defines a stream as a small river. Based on these definitions, the 18 recharge basins are not a natural feature and due to the maintenance regime, the wildlife resources of the recharge basin are negligible.

Based on the information presented above, the proposed modifications to the 18 basins are not within the jurisdiction of either the Corps or CDFG. The proposed project is not forecast to have a substantial adverse effect on federally protected wetlands or Waters of the United States. None of the biological resource mitigation measures outlined in the OBMP PEIR need to be implemented and the project's impacts on such resources will be nonsignificant without mitigation.

d. The proposed project sites consist of man-made basins that are highly disturbed and that have been utilized for flood control and groundwater recharge purposes for 30 years or more. As existing basins, the proposed modifications have no potential to interfere with the movement of any native resident or migratory fish or wildlife species; to interfere with established native resident or migratory wildlife corridors; or to interfere with or impede the use of native wildlife nursery sites. None of the mitigation measures outlined in the OBMP PEIR need to be implemented and the project's impacts on such resources will be nonsignificant without mitigation.

e. The proposed project will not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. No resources addressed by such policies and ordinances occur at the site due to the existing management regime and no potential for adverse impacts to such resources can occur. None of the mitigation measures outlined in the OBMP PEIR need to be implemented and the project's impacts on such resources will be nonsignificant without mitigation.

f. There is currently no adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan associated with the proposed project sites. Therefore, none of the mitigation measures outlined in the OBMP PEIR need to be implemented and the project's impacts on such resources will be nonsignificant without mitigation.

Conclusion

Based on the analysis presented above, biological resources will not experience significant adverse impacts from project implementation greater than those forecast in the OBMP EIR. The proposed biological resources impacts remain nonsignificant and consistent with the findings of the OBMP PEIR; in fact they will be lower than the potential impacts identified in the PEIR. Implementation of the proposed project does not pose a substantial change in the conclusions presented in the OBMP PEIR regarding biological resources impacts.

No new, project specific biological effects have been identified that were not identified and analyzed in the OBMP PEIR. The overall analysis in the Initial Study verifies the conclusions in the PEIR. Finally, no substantial changes have occurred which may cause new, significant adverse biological effects from implementing this second tier project. None of the mitigation measures outlined in the OBMP PEIR need to be implemented and the project's impacts on biological resources will be nonsignificant without mitigation. Thus, this project's impacts remain within the scope of analysis and findings contained in the PEIR and no further environmental analysis is required.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
V. CULTURAL RESOURCES – Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
d. Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

SUBSTANTIATION

The general impacts to cultural resources of the overall groundwater recharge program, of which the proposed project is a part, are forecast in Section 4.14 pages 4-425 to 4-435 of the OBMP PEIR. The impact analysis in the PEIR concluded that cultural resource sites could be avoided so no impact will occur, or that impacts can be mitigated through implementation of appropriate monitoring, collection, curation and reporting. With implementation of proposed mitigation, it was determined that implementation of the OBMP would not cause significant cultural resource impacts.

a. There are no historic resources associated with the proposed project sites. All of the sites have been reconfigured through excavation and shaping and none of the original ground surfaces remain. All proposed ground disturbance will be within the existing footprint of the facility, or the disturbed right-of-way of existing paved or graded roads or pads. Therefore, no historical resources can exist on these properties. None of the mitigation measures outlined in the OBMP PEIR need to be implemented and the project's impact on historical resources is forecast to be nonsignificant without mitigation.

b. The proposed project sites are located between or near the creek, channels which are designated sensitive areas for cultural resources as documented on Figure 4.14-1 in the OBMP PEIR. However, the total site at each location, including College Heights, has either been excavated in support of existing recharge operations or previously graded or paved for road rights-of-way. All proposed ground disturbance will be within the existing footprint of the facility, or the disturbed right-of-way of existing paved or graded roads or pads. Thus, no archaeological resources can exist within the boundaries of these basins that retain any of its in place value. None of the mitigation measures outlined in the OBMP PEIR need to be implemented and the project's impacts on archaeological resources will be nonsignificant without mitigation.

c. The proposed project sites are existing recharge basins (or in one instance a quarry) where previous excavation did not reveal any known paleontological resources. Therefore, the proposed project has no potential to directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. None of the mitigation measures outlined in the OBMP PEIR need to be implemented and the project's impacts on paleontological resources will be nonsignificant without mitigation.

d. As the proposed project sites are disturbed and have for several decades been the site of a public facility for flood control and recharge operations, it is considered a very low probability that human remains will be discovered during construction or operation. However, in the event human remains are found at the project site, State Health and Safety Code 7050.5 requires that no further disturbance shall occur until the county coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. If the coroner determines that the burial is prehistoric, the Native American Heritage Commission must be contacted and appropriate disposition of the burial determined. As this is State law, no further mitigation is required for this issue.

Conclusion

Based on the analysis presented above, cultural resources will not experience significant adverse impacts from project implementation greater than those forecast in the OBMP PEIR. The proposed cultural resources impacts remain consistent with the findings of the OBMP PEIR. Implementation of the proposed project does not pose a substantial change in the conclusions presented in the OBMP PEIR regarding cultural resources impacts.

No new, project specific cultural resources effects have been identified that were not identified and analyzed in the OBMP PEIR. The overall analysis in the Initial Study verifies the conclusions in the PEIR. Finally, no substantial changes have occurred which may cause new, significant adverse cultural resources effects from implementing this second tier project. None of the mitigation measures outlined in the OBMP PEIR need to be implemented and the project's impacts on cultural resources will be nonsignificant without mitigation. Thus, this project's impacts remain within the scope of analysis and findings contained in the PEIR and no further environmental analysis is required.

Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
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VI. GEOLOGY AND SOILS – Would the project:

a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
• Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
• Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
• Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
• Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
b. Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
d. Be located on expansive soil, as defined in Table 18 1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X

SUBSTANTIATION

The general impacts to geology and soils of the overall groundwater recharge program, of which the proposed project is a part, are forecast in Section 4.4 on pages 4-42 to 4-70 of the OBMP PEIR. The geotechnical issue of greatest concern in the PEIR was subsidence. However, for all geotechnical and geological issues, the PEIR concluded that potential environmental impacts could be avoided or could be mitigated to a level of nonsignificant impact.

a. The proposed project is the expansion of existing groundwater recharge facilities and installation of pipelines. This project has no potential to expose people or structures to potential substantial adverse

geologic constraints/effects, including the risk of loss, injury, or death involving: rupture of a known earthquake fault; strong seismic ground shaking; seismic-related ground failure, including liquefaction; or landslides. The proposed project sites are not located within an Alquist-Priolo Earthquake Fault Zone and habitable structures are not a part of the proposed projects. The project sites are not located on steep slopes and subject to landslides and would not be subjected to ground-shaking greater than that analyzed in the OBMP PEIR. Additionally, the proposed projects are not in areas subject to liquefaction.

b. During construction and operation, the slopes of the recharge basins would be exposed to a potential for substantial soil erosion. Due to historic and proposed basin modifications, none of the topsoil will remain at the project sites. The alluvial sediments at those locations where excavation is proposed will either be excavated under contract to the managing agencies, or will be made available to local developers for them to excavate material for use as fill at other locations. Any erosion that may occur on the project site will be controlled by retaining all sediment in the existing basin, and retaining the internal runoff so that it percolates, rather than discharging to another location. By meeting this requirement, and implementing mitigation measure 4.5-5 of the OBMP PEIR as part of ongoing management of the basins, listed on page 4-162, potential erosion impacts related to constructing or operating the recharge basin will not cause any significant adverse erosion or sedimentation impacts outside of the recharge basins. Thus, ongoing maintenance can ensure that potentially significant water quality degradation will not occur as a result of implementing the proposed project, either during construction or operation.

c. The proposed project sites are engineered, man-made basins and are not located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project. Thus, the proposed project is not forecast to potentially result in onsite or offsite landslides, lateral spreading, subsidence, liquefaction or collapse. None of the mitigation measures outlined in the OBMP PEIR need to be implemented and the project's impacts on or exposure to unstable geological conditions is below a level of significant impact. Note that the proposed project is part of the overall program to balance recharge and extraction of groundwater in the Chino Basin. Thus, the recharge function that will result from the proposed project's implementation has no potential to adversely impact subsidence within the Basin; and it should have the beneficial effect of countering the potential for subsidence in areas where overpumping is presently occurring.

d. The proposed project sites are not located on expansive soil, as defined in Table 18 1-B of the Uniform Building Code (1994), and will not create substantial risks to life or property. None of the mitigation measures outlined in the OBMP PEIR need to be implemented and the project's exposure to expansive soil will be nonsignificant without mitigation.

e. The proposed project does not include septic tanks or alternative waste water disposal systems. No potential for any impacts to such facilities exists from implementing the proposed project.

Conclusion

Based on the analysis presented above, geology and soils will not experience significant adverse impacts from project implementation greater than those forecast in the OBMP PEIR. The proposed geology and soils impacts remain consistent with the findings of the OBMP PEIR. Implementation of the proposed project does not pose a substantial change in the conclusions presented in the OBMP PEIR regarding geology and soils impacts.

No new, project specific geology and soils effects have been identified that were not identified and analyzed in the OBMP PEIR. The overall analysis in the Initial Study verifies the conclusions in the PEIR. Finally, no substantial changes have occurred which may cause new, significant adverse geology and soils effects from implementing this second tier project. After implementing mitigation measure 4.5-5 of the OBMP PEIR to control potential for erosion, the impacts from implementing the proposed project are concluded to remain within the scope of analysis and findings contained in the PEIR and no further environmental analysis is required.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
VII. HAZARDS AND HAZARDOUS MATERIALS –				
Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>
h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X

SUBSTANTIATION:

The general impacts to hazards and hazardous materials of the overall groundwater recharge program, of which the proposed project is a part, are forecast in Sections 4.5.3 , 4.7.3, 4.7.4and 4.4.10 on pages 4-128 to 4-139, 4-304-306 and 4-347 to 4-365 of the OBMP PEIR. Potentially significant impacts from use of

hazardous materials in support of OBMP project may occur, including the accidental release of such hazardous substances during construction or the intentional use of chemicals to treat water, such as chlorination of potable water produced by desalters. Mitigation measures were identified to reduce the potential impacts from use of hazardous substances to a level of nonsignificance.

a. The proposed project will use hazardous substances, such as pesticides and herbicides as part of the management plan to control weeds and nuisance insects. With implementation of mitigation measures 4.10-1 through 4.10-5 of the OBMP PEIR hazards to the public or the environment through the routine transport, use, or disposal of hazardous materials will be less than significant. Note that the chemicals used for control of vegetation and insects are registered by the State of California for such use, such as Round-up and DIMLIN. These chemicals can be used in aquatic situations because the chemicals are short lived and do not pose a water quality hazard. A copy of the Material Safety Data Sheet and additional data are on file for review by the public at the IEUA office.

b. The proposed project will use hazardous substances, such as petroleum products onsite during construction and pesticides and herbicides to control weeds and nuisance insects during operations. With implementation of mitigation measures 4.10-1 through 4.10-5 of the OBMP PEIR, hazards to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment would be less than significant. The recharge operations at the basins do not involve the use or generation of any hazardous substances and pose no potential for accidental releases that could significantly harm the public or the environment. Use of chemicals as part of ongoing maintenance of the basins could result in accidental releases and implementation of the above referenced measures can reduce potential adverse impacts to a nonsignificant level of impact.

c. The proposed project sites are not located within one-quarter mile of an existing or proposed school. No potential exists for any construction or operation activities to adversely impact a school and its students.

d. The proposed project sites are not located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Based on past recharge and management operations at these basins, no potential to encounter any hazardous contamination is forecast to occur at any of the project sites.

e. The proposed project sites are located within two miles of Ontario International Airport, Cable Airport and Chino Airport. The basins are not located within any area identified in any of the airport land use plans as being exposed to airport hazards. Even if it were, the type of use (recharge or pipelines) would not conflict with any airport operations. Also, since it is a groundwater recharge facility, it would not result in a safety hazard for people residing or working in the project area. No potential exists to expose facilities or humans to any but random hazards (unpredictable aircraft crashes) associated with aircraft operations. Even if such an event occurred, no humans or structures would be exposed to such hazards.

f. The proposed project sites are not located within the vicinity of any known private air strip. No potential exists to expose facilities or humans to any private air strip operational impacts.

g. The proposed project traffic will exit onto adjacent roads during construction. Truck traffic during construction could create short-term traffic flow conflicts related to construction activities and could interfere with emergency access or impair implementation of emergency response plans or emergency evacuation plans. However, with implementation of mitigation measures 4.7-2 through 4.7-4 on page 4-306 and 4.10-6 of the OBMP PEIR the impacts on the local road system can be reduced to a level of nonsignificance.

h. The proposed project consists of groundwater recharge facilities, pipelines below the ground surface and some facilities such as turnouts, inlets and outlets, and this project does not include any habitable structures. The recharge basins are not located in or near a wildland fire area. No potential exists for this project or its facilities to be exposed to significant wildland fire hazards; to cause any such hazards; or to be at risk if a wildland fire did occur at one of the facility locations.

Conclusion

Based on the analysis presented above, hazards and hazardous materials will not experience significant adverse impacts from project implementation. The proposed hazards and hazardous materials impacts remain consistent with the findings of the OBMP PEIR. Implementation of the proposed project does not pose a substantial change in the conclusions presented in the OBMP PEIR regarding hazards and hazardous materials impacts.

No new project hazards and hazardous materials effects have been identified that were not identified and analyzed in the OBMP PEIR. The overall analysis in the Initial Study verifies the conclusions in the PEIR. Finally, no substantial changes have occurred which may cause new, significant adverse hazards and hazardous materials effects from implementing this second tier project. After implementing the mitigation measures 4.5-16 and 4.5-17 on page 4-164, 4.7-2-4 on page 4-306, and 4.10-1 through 4.10-6 listed on pages 4-364 to 4-365 of the OBMP PEIR, the impacts from implementing the proposed project are concluded to remain within the scope of analysis and findings contained in the PEIR and no further environmental analysis is required.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
VIII. HYDROLOGY AND WATER QUALITY – Would the project:				
a. Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation onsite or offsite?	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite?	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>
e. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
f. Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
h. Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>
i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
j. Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

SUBSTANTIATION:

The general impacts to hydrology and water quality of the overall groundwater recharge program, of which the proposed project is a part, are forecast in Section 4.5 on pages 4-87 to 4-166 of the OBMP PEIR. The PEIR contains a detailed evaluation of water resource issues that include assumptions about integrated implementation of the OBMP. Thus, the impact evaluation relies upon the comprehensive implementation of the OBMP to partially mitigate potential adverse environmental effects of certain action. For example, to offset the increased pumping in the southern portion of the Chino Basin in support of existing and future desalters, the OBMP includes an extensive recharge program in the middle and northern portions of the Basin. The objective is to create a balance that will allow gradual removal of salts, particularly nitrates, from the Basin's groundwater aquifers. The PEIR evaluated water resource and water quality impacts of implementing the integrated program outlined in the OBMP and concluded that, with implementation of extensive mitigation and ongoing monitoring, the OBMP could be implemented without causing residual significant adverse impacts to these issues.

a. The process of modifying the existing recharge basins would result in construction activities that could result in erosion, sedimentation and accidental release of pollutants. Complying with the State Water Resources Control Board and National Pollutant Discharge Elimination System program and implementation of mitigation measure 4.5-5 of the OBMP PEIR would reduce the impact to this issue to less than significant. The most critical component of the Storm Water Pollution Prevention Plan (SWPPP) that will be implemented is to contain all internal runoff during construction and operation to ensure that no sediment or any pollutant discharges are released into the general environment. This requirements is also discussed under VI.b of the Geology Section of this Initial Study.

Within road sections and existing facility pads (both paved and unpaved), where pipelines will be installed and new turnouts will be constructed, the control of erosion and sedimentation will require additional effort, but the objective is the same and that is to ensure that erosion does not occur in the excavated materials and the sites and that sediment is not discharged to the nearest stream channel. Onsite erosion control measures and measures to trap any sediment that may be captured in runoff (such as with detention basins) can fully control the potential of water quality degradation and ensure that water quality standards are not violated by implementing this proposed project.

b. The proposed project is the modification, expansion and increased recharge at existing groundwater recharge basins, along with installation of pipelines and turnouts within existing disturbed areas, including road rights-of-way and existing facility pads. The impact of the project to this groundwater supplies is considered beneficial because it has a potential to recharge up to an additional 92,290-13,700 acre-feet of high quality storm water and imported water into the Basin's groundwater aquifers. This is fully consistent with the OBMP and will increase the overall safe yield of the Chino Basin.

c. The proposed project does not include any modifications that would substantially alter the existing drainage patterns within the Chino Basin. Within many of the basins, a potential for erosion and sedimentation will exist from modifying the configuration of the basins, but implementation of site specific erosion control measures as part of the project SWPPP can prevent potential water quality degradation from leaving the construction sites and degrading water downstream of the basins. Specifically, material will be excavated and new side slopes will be installed on the side slopes of about 13 basins. Implementation of mitigation measures 4.5-5, and 4.5-6 of the OBMP PEIR will reduce the impact to this issue to less than significant because internal runoff, including any sediment, will be captured and retained in the recharge basin. Ongoing maintenance of the side slopes will collect and redistribute (internally) or relocate any sediment captured in the recharge basin.

d. The proposed project would substantially alter the existing drainage pattern within the basins, but would not alter the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite. Implementation of mitigation measures 4.5-5 and 4.5-17 of the OBMP PEIR would reduce the impact to this issue to less than significant.

e. The proposed project would not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. In fact, by diverting and storing flows during storm runoff or flooding conditions in the expanded basins, the project can reduce overall flood hazards downstream of the project site. Please refer to a, c, d and h.

f. The proposed project sites are located near several known groundwater pollutant plumes. However, the OBMP PEIR concluded that implementation of the OBMP (including proposed recharge projects) would not cause potentially significant effects to groundwater quality from mobilizing plumes around these proposed project sites. Further, the proposed project will introduce high quality storm water (estimated to be approximately 100 mg/L, TDS and imported water which is currently averaging about 275 mg/l, TDS) for recharge into the Basin, enhancing groundwater quality as a result. The attached letter from Wildermuth Environmental, Inc. provides further discussion and substantiation for this conclusion. The following information is abstracted from Mark Wildermuth's letter:

"I have been working on surface water and ground water investigations in the Chino Basin for over 20 years. Our firm has formally been the Engineer for the Chino Basin Watermaster since 1996. We are the engineer of record for the development of the Chino Basin Optimum Basin Management Program (OBMP) and we conducted the water resources analysis that was used by the Inland Empire Utilities Agency (IEUA) for the Program Environmental Impact Report (PEIR) for the OBMP. The PEIR was certified in July 2000.

The OBMP PEIR Table 4.5-21 contains storm and imported water recharge estimates as envisioned in July 2000. These recharge estimates have been revised in the Chino Basin Watermaster Phase II Recharge Master Plan (Recharge Master Plan). Table 1 contains the revised storm water recharge capacity estimates, and a proposed recharge mix for each facility in the Recharge Master Plan, based on the assumptions in the Master Plan. The revised potential total storm water recharge capacity ranges from about 19,000 to 24,000 acre-ft/yr or about 6,000 to 11,000 acre-ft/yr lower than assumed in the July 2000 PEIR. The revised imported water recharge capacity is estimated to range from about 82,000 to 122,000 acre-ft/yr. However, the ultimate, average annual imported water recharge will reach about 44,000 acre-ft/yr - the same value reported in the OBMP PEIR. Recharge capacity in excess of the 44,000 acre-ft/yr average annual need is necessary because:

- the imported water supply is not available every year for replenishment;
- flexibility is needed to meet localized recharge needs as required in the Peace Agreement; and
- there is uncertainty in the actual recharge rates that necessitates additional capacity to ensure that Watermaster has enough recharge capacity to meet replenishment obligations in the future.

Table 2 shows a comparison of the storm and imported water recharge plans from the Chino Basin OBMP PEIR and the Recharge Master Plan. For existing facilities, the differences between the OBMP PEIR and the Recharge Master plan are based on more refined studies and improved imported water recharge concepts. The improvements in the imported recharge concepts include providing capacity to volumetrically balance production and recharge throughout the basin. The Recharge Master Plan also includes two new recharge facilities that were inadvertently omitted in the PEIR, even though they have been in existence for many years - the College Heights basins and the RP3 site."

The letter then addresses the question: "Will the proposed project adversely impact groundwater quality through the recharge of up to 24,000 acre-ft of storm water and 44,000 acre-ft of imported water? The recharge of storm water will improve groundwater quality. Watermaster's surface water quality monitoring program has shown that the TDS and nitrogen concentrations in storm water captured in storm water retention and recharge basins are very low and always below the Basin Plan objectives. Other contaminants of concern will be removed or immobilized in the vadose zone. The TDS in imported water is generally about the same as the basin plan objective for TDS and is always lower than the secondary drinking water standard of 500 mg/L. The modeling work done for the PEIR (refer to Figure 4.5-55 of OBMP PEIR) estimated the cumulative changes in direction and speed of groundwater movement from the implementation of recharge projects and from the desalters in the lower part of the basin. The modeling results showed that the relative displacement

of known water quality anomalies is similar with and without OBMP conditions. That is, the recharge projects coupled with the desalters and other groundwater production in the basin will not significantly redirect or accelerate the movement of known water quality anomalies.”

Therefore, recharge of storm water into the Chino Basin at the proposed project site is not forecast to cause any significant adverse degradation to groundwater in the Basin. In fact, the OBMP, and particularly this component of the program, is forecast to be a substantial benefit to water quality in the Chino Basin. None of the mitigation measures outlined in the OBMP PEIR need to be implemented and the project’s forecast impacts to groundwater quality will be nonsignificant without mitigation.

g. There is no housing included in this project, so no adverse impact can occur.

h. The proposed project would redirect some storm water flows to the off-stream recharge basin. The recharge basins can only receive water for conservation purposes when the water is diverted into it. The proposed recharge basins modifications will allow the basins to be managed to reduce downstream storm water flows, while balancing this benefit with recharge, i.e., conservation of additional storm water. New inlets and outlets can be managed to ensure that the basins will not experience excessively high water levels in the recharge basins. With implementation of mitigation measure 4.5-17, project operations can ensure that the operation of the recharge basin will have no adverse impacts from either impeding or redirecting flood flows. As noted in the project description, detailed operating agreement must be completed between the IEUA, Watermaster and CBWCD and the County Flood Control District to ensure that ongoing management in the future can meet both the District’s objectives and those of the OBMP. The impacts to this issue would be less than significant based on implementation of the project as proposed.

i. The proposed project does not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam. Please refer to h for additional discussion of this issue.

j. The proposed project sites are not exposed to any inundation by seiche, tsunami, or mudflows.

None of the mitigation measures outlined in the OBMP PEIR need to be implemented and the project’s forecast impacts from exposure to such water related hazards will be nonsignificant without mitigation.

Conclusion

Based on the analysis presented above, hydrology and water quality will not experience significant adverse impacts from project implementation greater than those forecast in the OBMP PEIR. The proposed hydrology and water quality impacts remain consistent with the findings of the OBMP PEIR. Implementation of the proposed project does not pose a substantial change in the conclusions presented in the OBMP PEIR regarding hydrology and water quality impacts.

No new, project specific hydrology and water quality effects have been identified that were not identified and analyzed in the OBMP PEIR. The overall analysis in the Initial Study verifies the conclusions in the PEIR. Finally, no substantial changes have occurred which may cause new, significant adverse hydrology and water quality effects from implementing this second tier project. After implementing the mitigation measures 4.5-5, 4.5-6, 4.5-8, 4.5-15, and 4.5-17 listed on pages 4-161 through 4-164 of the OBMP PEIR, the hydrology and water quality impacts from implementing the proposed project are concluded to remain within the scope of analysis and findings contained in the PEIR and no further environmental analysis is required.

Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
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IX. LAND USE AND PLANNING – Would the project:

- | | | | | | |
|----|--|--------------------------|--------------------------|--------------------------|--------------------------|
| a. | Physically divide an established community? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | X |
| b. | Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | <input type="checkbox"/> | <input type="checkbox"/> | X | <input type="checkbox"/> |
| c. | Conflict with any applicable habitat conservation plan or natural community conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | X |

SUBSTANTIATION:

The general impacts to land use and planning of the overall groundwater recharge program, of which the proposed project is a part, are forecast in Section 4.2 on pages 4-3 to 4-26 of the OBMP PEIR. Land use impacts, both direct and indirect, were identified being nonsignificant from implementing the OBMP, including mitigation measures for certain impacts.

a. All of the proposed project sites are vacant property and all sites are currently dedicated to public use, including flood control and recharge basins, road rights-of-way and the quarries owned by CBWCD. The expansion of the existing recharge capacity at all of the basins, installation of pipelines, and installation of support facilities like turnouts, etc. have no potential to physically divide an established human community. No potential for adverse land use division impacts exist from implementing the proposed project.

b. The proposed project will be implemented at existing groundwater recharge facilities, in roads and at other public or vacant property designated for public or open space use by the local land use jurisdiction General Plans. Therefore, the project has no potential to conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect. In fact, these facilities are one of the primary components of mitigating environmental effects, particularly water resources, flood hazards, and water quality. None of the mitigation measures outlined in the OBMP PEIR need to be implemented and the project's forecast impacts to land use or other environmental policies will be nonsignificant without mitigation.

c. There is currently no adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan associated with the proposed project sites. Therefore, no potential exists for conflicts with any such plan.

Conclusion

Based on the analysis presented above, land use and planning resources will not experience significant adverse impacts from project implementation. The proposed land use and planning impacts remain consistent with the findings of the OBMP PEIR. Implementation of the proposed project does not pose a substantial change in the conclusions presented in the OBMP PEIR regarding land use and planning impacts.

No new, project specific land use and planning effects have been identified that were not identified and analyzed in the OBMP PEIR. Land use designations remain the same for all the sites as they have been since the PEIR was adopted and the continuation of uses consistent with recharge basins, pipelines, and support facilities has no potential to conflict with existing land use designations. The overall analysis in the Initial Study verifies the conclusions in the Program EIR. Finally, no substantial changes have occurred which may cause new, significant adverse land use and planning effects from implementing this second tier project. The impacts from implementing the proposed project are concluded to remain within the scope of analysis and findings contained in the PEIR and no further environmental analysis is required.

Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
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X. MINERAL RESOURCES – Would the project:

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

SUBSTANTIATION

The general impacts to mineral resources of the overall groundwater recharge program, of which the proposed project is a part, are forecast in the geologic resources section (4.4.2.2) on pages 4-49 to 4-51 of the OBMP PEIR. The recharge basins have often been excavated within mineral resource, particularly aggregate zones. However, the basins have been excavated, resources removed and the uses established. Periodically, the basins are excavated, thus they continue to provide some mineral resource value. The PEIR concluded that impacts from implementing the OBMP will not cause significant impacts to mineral resources and mineral resource values.

a. The proposed project sites are located within an areas known to have construction aggregate deposits. The materials excavated from these sites during the process of recharge facility expansion will be used as fill material for building pads or other purposes by developers and contractors for local projects. Therefore, the implementation of the proposed project will be beneficial from a mineral resource standpoint. The long-term reclamation of the sites once the remainder of the material is excavated at the site is to continue its function, albeit expanded, as a recharge facility.

b. The proposed project sites are not considered important mineral recovery sites as delineated on a local general plan, specific plan or other land use plan. However as noted above, the mineral resources excavated from the site will be utilized for local projects. No adverse impacts to mineral resources or mineral resource availability are forecast to result from implementing the proposed project.

Conclusion

Based on the analysis presented above, mineral resources will not experience significant adverse impacts from project implementation. The proposed mineral resources impacts remain consistent with the findings of the OBMP PEIR. Implementation of the proposed project does not pose a substantial change in the conclusions presented in the OBMP PEIR regarding mineral resources impacts.

No new, project specific mineral resources effects have been identified that were not identified and analyzed in the OBMP PEIR. The overall analysis in the Initial Study verifies the conclusions in the PEIR. Finally, no substantial changes have occurred which may cause new, significant adverse mineral resources effects from implementing this second tier project. The impacts from implementing the proposed project are concluded to remain within the scope of analysis and findings contained in the PEIR and no further environmental analysis is required.

Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
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XI. NOISE – Would the project result in:

- | | | | | | |
|----|--|--------------------------|--------------------------|--------------------------|--------------------------|
| a. | Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | <input type="checkbox"/> | X | <input type="checkbox"/> | <input type="checkbox"/> |
| b. | Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? | <input type="checkbox"/> | X | <input type="checkbox"/> | <input type="checkbox"/> |
| c. | A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | X | <input type="checkbox"/> |
| d. | A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | X | <input type="checkbox"/> | <input type="checkbox"/> |
| e. | For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | X | <input type="checkbox"/> |
| f. | For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | X |

SUBSTANTIATION

The general impacts to noise of the overall groundwater recharge program, of which the proposed project is a part, are forecast in Section 4.11 on pages 4-378 to 4-392 of the OBMP PEIR. Because the OBMP will require a number of construction projects to be implemented and because some of the facilities are stationary noise sources (pumps and generators), the PEIR concluded that the proposed project could cause significant noise impacts. However, mitigation measures were identified with sufficient noise controls to reduce potential adverse noise impacts to a nonsignificant level of impact.

a. The proposed project has the potential to expose persons or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies during construction activities. Implementation of mitigation measures 4.11-1 through 4.11-4 of the OBMP PEIR will reduce impacts to this issue to a less than significant level by ensuring that significant construction related noise is not generated during evening, night or early morning hours. No noise is forecast to be generated from operation of the expanded recharge basins. All actions in support of operations will be passive, so no adverse noise impacts from operations are not forecast to cause any adverse effects, even without mitigation.

b. The proposed project has the potential to expose persons to or generate excessive groundborne vibration or groundborne noise levels during construction activities. Implementation of mitigation measures 4.11-1 through 4.11-3 of the OBMP PEIR will reduce the impacts to this issue to less than significant.

c. The proposed groundwater recharge projects are an expansion of existing uses on the project sites. These recharge projects will not cause a substantial permanent increase in ambient noise levels in the vicinity of the recharge basins above levels existing without the project. None of the mitigation measures outlined in the OBMP PEIR need to be implemented and the project's forecast impacts to the permanent background noise environment will be nonsignificant without mitigation.

d. During construction, the proposed project would cause a substantial temporary increase in ambient noise levels in the project vicinity above levels existing without the project. See the discussion under issue a. above. Implementation of mitigation measures 4.11-1 through 4.11-4 will reduce the impacts to this issue to less than significant.

e. The proposed project sites are within two miles of several airports. However, expansion of the recharge basins capacity would not expose people residing or working in the project area to excessive noise levels. None of the mitigation measures outlined in the OBMP PEIR need to be implemented and the project's forecast impacts due to airport background noise will be nonsignificant without mitigation.

f. The proposed project sites are not within the vicinity of a private airstrip. No potential for exposure to any noise impacts from such airport operations exists at the project locations.

Conclusion

Based on the analysis presented above, noise levels will not experience significant adverse impacts from project implementation. The proposed noise impacts remain consistent with the findings of the OBMP PEIR. Implementation of the proposed project does not pose a substantial change in the conclusions presented in the OBMP PEIR regarding noise impacts.

No new, project specific noise effects have been identified that were not identified and analyzed in the OBMP PEIR. The overall analysis in the Initial Study verifies the conclusions in the PEIR. Finally, no substantial changes have occurred which may cause new, significant adverse noise effects from implementing this second tier project. After implementing the mitigation measures 4.11-1 through 4.11-4 listed on pages 4-391 to 4-392 of the OBMP PEIR and meeting local noise requirements, the impacts from implementing the proposed project are concluded to remain within the scope of analysis and findings contained in the PEIR and no further environmental analysis is required.

Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
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XII. POPULATION AND HOUSING – Would the project:

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|---|--------------------------|--------------------------|--------------------------|--------------------------|
| a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? | <input type="checkbox"/> | <input type="checkbox"/> | X | <input type="checkbox"/> |
| b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | X |
| c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | X |

SUBSTANTIATION:

The general impacts to population and housing of the overall groundwater recharge program, of which the proposed project is a part, are forecast in Section 4.3 pages 4-33 to 4-41 of the OBMP PEIR. Neither direct or indirect population impacts are forecast to cause significant adverse impacts, regardless of mitigation.

a. The proposed project sites consist of the expansion of existing groundwater recharge facilities designed as part of a program to better utilize existing water resources in the Chino Basin. It helps to fulfill the water supply demands outlined in existing local jurisdiction general plans and Urban Water Management Plans. It does not induce substantial population growth in the area, either directly or indirectly. No new employees will be required to implement this project and no housing is proposed as part of the project. None of the mitigation measures outlined in the OBMP PEIR need to be implemented and the project’s forecast impacts to population and housing resources will be nonsignificant without mitigation.

b. The proposed project sites consist of existing recharge facilities and vacant property. No housing is located on any of the sites and the proposed project has no potential to adversely impact any housing resources.

c. The proposed project sites consist of existing recharge facilities and vacant property. No potential exists to displace any existing population from implementing the proposed project. No adverse population impacts can result from implementing the proposed project.

Conclusion

Based on the analysis presented above, population and housing will not experience significant adverse impacts from project implementation. The proposed population and housing impacts remain consistent with the findings of the OBMP PEIR. Implementation of the proposed project does not pose a substantial change in the conclusions presented in the OBMP PEIR regarding population and housing impacts.

No new, project specific population and housing effects have been identified that were not identified and analyzed in the OBMP PEIR. The overall analysis in the Initial Study verifies the conclusions in the PEIR. Finally, no substantial changes have occurred which may cause new, significant adverse population and housing effects from implementing this second tier project. Although some growth has occurred since the PEIR was adopted, none of the project areas have experienced any changes in population or use. The impacts from implementing the proposed project are concluded to remain within the scope of analysis and findings contained in the PEIR and no further environmental analysis is required.

Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
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XIII. PUBLIC SERVICES – Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	X	<input type="checkbox"/>

SUBSTANTIATION:

XIII. The general impacts to public services of the overall groundwater recharge program, of which the proposed project is a part, are forecast in Section 4.12 on pages 4-406 to 4-409 and in Section 4.2 on page 4-18 of the OBMP PEIR. The proposed project is considered a public facility. The expansion of the existing recharge facility does not include housing. Therefore, this project has no potential to impact the need or demand for schools, parks, and other public facilities such as libraries. All local fire ordinances will be followed in design, construction and operation of the proposed project facilities, which have a very low fire hazard associated with their construction and operation. Mitigation measure 4.12-1 as contained in the OBMP PEIR will be implemented to reduce the impact of the proposed project on demand for police protection services to a less than significant level.

Conclusion

Based on the analysis presented above, public services will not experience significant adverse impacts from project implementation. The proposed public services impacts remain consistent with the findings of the OBMP PEIR. Implementation of the proposed project does not pose a substantial change in the conclusions presented in the OBMP PEIR regarding public services impacts.

No new, project specific public services effects have been identified that were not identified and analyzed in the OBMP PEIR. The overall analysis in the Initial Study verifies the conclusions in the PEIR. Finally, no substantial changes have occurred which may cause new, significant adverse public services effects from implementing this second tier project. After implementing the mitigation measure 4.12-1 listed on page 4-409 of the OBMP PEIR, the impacts from implementing the proposed project are concluded to remain within the scope of analysis and findings contained in the PEIR and no further environmental analysis is required.

Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
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XIV. RECREATION –

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|----|---|--------------------------|--------------------------|--------------------------|---|
| a. | Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | X |
| b. | Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | X |

SUBSTANTIATION:

The general impacts to recreation of the overall groundwater recharge program, of which the proposed project is a part, are forecast in the land use section (4.2) on page 4-18 of the OBMP PEIR. No significant recreation impacts were forecast to occur from implementing the proposed project.

a. The proposed project does not include housing, an increase in population, or a place of employment with employees, that have a potential to increase the use of existing neighborhood parks or other recreation facilities. None of the mitigation measures outlined in the OBMP PEIR need to be implemented and the project's forecast impacts to recreation resource demand will be nonsignificant without mitigation.

b. Please refer to a.

Conclusion

Based on the analysis presented above, recreation will not experience significant adverse impacts from project implementation. The proposed recreation impacts remain consistent with the findings of the OBMP PEIR. Implementation of the proposed project does not pose a substantial change in the conclusions presented in the OBMP PEIR regarding recreation impacts.

No new, project specific recreation effects have been identified that were not identified and analyzed in the OBMP PEIR. The overall analysis in the Initial Study verifies the conclusions in the PEIR. Finally, no substantial changes have occurred which may cause new, significant adverse recreation effects from implementing this second tier project. The impacts from implementing the proposed project are concluded to remain within the scope of analysis and findings contained in the PEIR and no further environmental analysis is required.

Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
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XV. TRANSPORTATION/TRAFFIC – Would the project:

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|--|--------------------------|--------------------------|--------------------------|--------------------------|
| a. Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)? | <input type="checkbox"/> | X | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways? | <input type="checkbox"/> | <input type="checkbox"/> | X | <input type="checkbox"/> |
| c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | X |
| d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | <input type="checkbox"/> | X | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Result in inadequate emergency access? | <input type="checkbox"/> | X | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Result in inadequate parking capacity? | <input type="checkbox"/> | <input type="checkbox"/> | X | <input type="checkbox"/> |
| g. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | X |

SUBSTANTIATION:

The general impacts to transportation and traffic of the overall groundwater recharge program, of which the proposed project is a part, are forecast in Section 4.7 on pages 4-296 to 4-307 of the OBMP PEIR. Potentially significant short term traffic or circulation system impacts were identified in association with implementation or construction of proposed projects. Mitigation was identified that is capable of reducing potential circulation system impacts to a nonsignificant level.

a. The proposed project may cause an increase in traffic on roads adjacent to the basins during daylight hours. Up to 50 truck trips per day and twenty vehicle trips may be generated per day, with a maximum of ten truck trips during the morning peak hour (no afternoon peak hour trips are forecast to occur). The generation of up to 170 vehicle trips (assuming that each truck trip is designated to generate 3 passenger car equivalent (PCE) trips) per day with a maximum of 30 PCE trips during the peak hour falls below the significance threshold for traffic impacts from a proposed project. In addition, these trips will occur only for a short period during construction, typically three to four months. During operations, less than one vehicle trip per day is forecast to occur to each site. None of the mitigation measures outlined in the OBMP PEIR need to be implemented and the project's forecast impacts to the circulation system will be nonsignificant without mitigation. Mitigation for potential hazards from ingress and egress is identified under the Hazards section which will ensure that safety related to access to the project site is mitigated to a nonsignificant level of impact.

None of the mitigation measures outlined in the OBMP PEIR need to be implemented and the project's forecast traffic impacts to the local circulation system will be nonsignificant without mitigation.

b. Please refer to the discussion under a. above.

c. The proposed project consists of the modification and expansion of groundwater recharge facilities located within a mile of airports in the area. However, the proposed project can have no impact on the air traffic patterns associated with any of the airports because all facilities are at or below ground level. No mitigation is required.

d. The proposed project may increase traffic hazards due to construction activities as trucks enter and leave the recharge basins site to transport loads of dirt or to deliver construction materials. Implementation of mitigation measures 4.7-2 through 4.7-5 of the OBMP PEIR will reduce the potential traffic hazard impacts to a less than significant level.

e. The proposed project traffic will exit onto local streets adjacent to all of the recharge basins. This truck traffic could create short-term detours related to construction activities and could interfere with emergency access or impair implementation of emergency response plans or emergency evacuation plans. However, with implementation of mitigation measures 4.7-2 through 4.7-4 on page 4-306 and 4.10-6 of the OBMP PEIR, the impacts to emergency circulation in these areas would be reduced to less than significant.

f. The proposed project will not result in a demand for parking for more than a few vehicles at a time on an intermittent basis. All construction staging areas will be located with the existing footprint of the recharge areas or roads where pipelines will be installed. These vehicles will be related to construction or operation of the facility and more than adequate parking area is available on the project site. None of the mitigation measures outlined in the OBMP PEIR need to be implemented and the project's forecast parking demand impacts will be nonsignificant without mitigation.

g. The proposed project is a recharge facility with no potential to impact adopted policies, plans, or programs supporting alternative transportation. None of the mitigation measures outlined in the OBMP PEIR need to be implemented and the project's forecast operations have no potential to conflict with adopted transportation programs or policies and the project will be nonsignificant without mitigation in relation to this issue.

Conclusion

Based on the analysis presented above, transportation and traffic will not experience significant adverse impacts from project implementation. The proposed transportation and traffic impacts remain consistent with the findings of the OBMP PEIR. Implementation of the proposed project does not pose a substantial change in the conclusions presented in the OBMP PEIR regarding transportation and traffic impacts.

No new, project specific transportation and traffic effects have been identified that were not identified and analyzed in the OBMP PEIR. The overall analysis in the Initial Study verifies the conclusions in the PEIR. Finally, no substantial changes have occurred which may cause new, significant adverse transportation and traffic effects from implementing this second tier project. After implementing the mitigation measures 4.7-2 through 4.7-4 and 4.7-7 listed on pages 4-306 of the OBMP PEIR, the impacts from implementing the proposed project are concluded to remain within the scope of analysis and findings contained in the PEIR and no further environmental analysis is required.

Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
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XVI. UTILITIES AND SERVICE SYSTEMS – Would the project:

- | | | | | | |
|----|--|--------------------------|--------------------------|--------------------------|--------------------------|
| a. | Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | X |
| b. | Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | X |
| c. | Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | <input type="checkbox"/> | <input type="checkbox"/> | X | <input type="checkbox"/> |
| d. | Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | X |
| e. | Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | X |
| f. | Be served by a landfill(s) with sufficient permitted capacity to accommodate the project's solid waste disposal needs? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | X |
| g. | Comply with federal, state, and local statutes and regulations related to solid waste? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | X |

SUBSTANTIATION:

The general impacts to utilities and service systems of the overall groundwater recharge program, of which the proposed project is a part, are forecast in Section 4.5 pages 4-87 to 4-166 and Section 4.13 pages 4-410 to 4-424 of the OBMP PEIR. Most services will not incur any significant impacts if the OBMP is implemented, while some utility systems will required mitigation to be reduced to a level of nonsignificant impact.

a. The proposed project consists of expansion of existing recharge facilities and increase in recharge of storm water and imported water. No wastewater treatment is associated with the implementation of the project. Therefore, no wastewater discharge orders will be affected and the project has no potential to conflict with such an order.

b. The proposed project does not require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities. There is no water or sewage treatment demand associated with the proposed project. Therefore, no wastewater systems will be affected and the project has no potential to conflict with such systems.

c. The proposed project expands existing recharge basins and increase in recharge of storm water and imported water. It utilizes the flood control system to provide the storm water that will be recharged, but it does not require, nor will it result in the construction of new storm water drainage facilities or expansion of existing facilities beyond those identified in the proposed project, i.e., new turnouts, inlet and outlet facilities. See also the discussion under issue VIII.c and h.

d. Recharge of stormwater in the Chino Basin is provided for and protected under the 1969 Santa Ana River Adjudication. The proposed project recharges storm water that flows in most of the creek channels that originate in the San Gabriel Mountains and flow across the Basin to the Santa Ana River following major or prolonged precipitation events flows. No entitlements are necessary for water harvesting at this location and no additional water resources are needed to implement the proposed project. The capture and recharge of this additional 23,000 acre-feet of high quality storm water runoff is considered to be a beneficial, not an adverse, impact of the project.

e. No wastewater treatment demand is associated with the proposed project, so no potential for adverse impact is forecast to occur from its implementation.

f. The proposed project has only minimal solid waste management requirements, primarily associated with vegetation removed from the basins. The periodic removal of vegetation from mechanical maintenance will generate an unknown volume of green waste that will be delivered to a composting facility for processing in accordance with regulations in existence at the time of generation. No adverse impact to solid waste disposal facilities is forecast to occur and the compost material generated by the proposed project will ultimately be made available for reuse as a soil amendment.

g. The materials to be excavated will be used by contractors to implement local construction projects. No solid waste is forecast to be generated in association with the proposed project. See discussion in f. above.

Conclusion

Based on the analysis presented above, utilities and service systems will not experience significant adverse impacts from project implementation. The proposed utilities and service systems impacts remain consistent with the findings of the OBMP PEIR. Implementation of the proposed project does not pose a substantial change in the conclusions presented in the OBMP PEIR regarding utilities and service systems impacts.

No new, project specific utilities and service systems effects have been identified that were not identified and analyzed in the OBMP PEIR. The overall analysis in the Initial Study verifies the conclusions in the PEIR. Finally, no substantial changes have occurred which may cause new, significant adverse utilities and service systems effects from implementing this second tier project. The impacts from implementing the proposed project are concluded to remain within the scope of analysis and findings contained in the PEIR and no further environmental analysis is required.

Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
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XVII. MANDATORY FINDINGS OF SIGNIFICANCE –

- | | | | | | |
|----|---|--------------------------|--------------------------|--------------------------|--------------------------|
| a. | Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? | <input type="checkbox"/> | X | <input type="checkbox"/> | <input type="checkbox"/> |
| b. | Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)? | <input type="checkbox"/> | X | <input type="checkbox"/> | <input type="checkbox"/> |
| c. | Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? | <input type="checkbox"/> | <input type="checkbox"/> | X | <input type="checkbox"/> |

SUBSTANTIATION:

The project proposed for implementation is the physical modification of 17 existing recharge basins and of two abandoned quarries to increase the volume of storm water and imported water that can be recharged into the Chino Basin. The total potential volume of water proposed for recharge on an annual basis could range from 92,290-133,700 acre-feet, depending on storm water flows and availability of imported water from the State Water Project. Of this total, the potential storm water recharge capacity could range from 16,890-21,100 AFY. The potential imported water recharge capacity could range from 75,400-112,500 AFY.

Over an estimated period of five years, the physical modifications in the Chino Basin is proposed to include: installation of 15,500 lineal feet of new pipeline; average annual ground disturbance of 26.5 acres; a total of 1,498,000 cubic yards are proposed to be excavated from the existing basins over the five year period, or an average of ~300,000 cubic yards; up to 500,000 cubic yards of will be excavated from the quarries that are proposed to be converted into the College Heights Basins, but it is anticipated that this material will be removed as part of a proposed mining program, which must undergo a separate environmental review with the County after a Surface Mining and Reclamation Act mining and reclamation plan are compiled. In addition to modifications at most basins for inlet and outlet structures, an operating and maintenance agreement must be established between the Watermaster, CBWCD and the SBCFCD.

- a. Potentially significant environmental impacts were identified for the following environmental issues and resources: aesthetics, air quality, erosion and sedimentation, hazards/risk of upset, hydrology and water quality, noise, police protection, and traffic. Implementation of the appropriate mitigation measures in the OBMP PEIR, as identified listed in this Initial Study and listed in the following section, for these issues will reduce the impact to these resources and issues to a less than significant level.

b. The proposed project is part of one element of the OBMP. The OBMP PEIR found that in the area of Air Quality, there are potential significant unavoidable adverse impacts attributable to the implementation of the long-term facilities envisioned by the OBMP. However, these air quality impacts were related to the utilization of electrical power, fuel and natural gas to support the movement of water throughout the Chino Basin. The proposed project consists of gravity flow of water from stream channels and imported water pipelines that will not make any significant demand on energy resources. Therefore, this specific project is not forecast to cause or contribute to significant air quality degradation. Mitigation is identified to control construction air emissions to a nonsignificant level.

c. The proposed groundwater recharge basin project expands the capacity of 17 existing recharge basins and creates new recharge basins at the College Heights quarries. It does not conflict with existing land use plans and does not substantially increase air quality or transportation impacts. No housing or displacement of housing is included in the project. The proposed project is a benefit to the community in that it allows more efficient use of water resources that occur within the Chino Basin. The proposed project will contribute to a more dependable water supply for supporting human activity as envisioned in the OBMP. Those potential activities (construction and operation) that could pose a hazard to the human population of the area will be mitigated to a nonsignificant level of adverse environmental impact as outlined in the detailed evaluations in the text of the Initial Study.

Conclusion

Based on the analysis presented in this Initial Study checklist, significant adverse impacts greater than those forecast in the OBMP PEIR from project implementation are not forecast to occur. The forecast impacts remain consistent with the findings of the OBMP PEIR. Implementation of the proposed project does not pose a substantial change in the conclusions presented in the OBMP PEIR regarding impacts to the environment.

No new, project specific effects have been identified that were not identified and analyzed in the OBMP PEIR. The overall analysis in the Initial Study verifies the conclusions in the PEIR. Finally, no substantial changes have occurred which may cause new, significant adverse environmental effects from implementing this second tier project. After implementing the appropriate mitigation measures listed in the OBMP PEIR and meeting local permitting or design requirements, where applicable, the impacts from implementing the proposed project are concluded to remain within the scope of analysis and findings contained in the PEIR and no further environmental analysis is required.

MITIGATION MEASURES:

OBMP MITIGATION MEASURES IDENTIFIED IN THIS INITIAL STUDY FOR IMPLEMENTATION

- 4.5-5 For each OBMP construction site, regardless of size, a Storm Water Pollution Prevention Plan (SWPPP) will be prepared and implemented. Each plan will identify the best management practices (BMPs) that will be used for that site to minimize the potential for accidental releases of any chemicals or materials on the site that could degrade water quality, including solid waste and require that any spills be clean-up, contaminated material properly disposed of and the site returned to pre-discharge condition, or in full compliance with regulatory limits for the discharged material. The portion of the SWPPP that addresses erosion and related sediment discharge will specify the percentage of pollutant removal, as illustrated in the attached Figure 4.5-56 which was abstracted from Supplement A to the "Riverside County Drainage Area Management Plans, Attachment" publication. At a minimum BMPs will achieve 60 percent removal of sediment and other pollutants from disturbed sites.
- 4.5-6 For long-term mitigation of site disturbances at OBMP facility locations, all areas not covered by structures will be covered with hardscape (concrete, asphalt, gravel, etc.), native vegetation and/or man-made landscape areas (for example, grass). Revegetated or landscaped areas will provide sufficient cover to ensure that, after a two year period, erosion will not occur from concentrated flows (rills, gully, etc.) and sediment transport will be minimal as part of sheet flows. These measures and requirements will be applied to closure of abandoned well site disturbed areas.
- 4.5-8 Recycled water will not be discharged to streams that are transporting storm flows for subsequent groundwater recharge (except as authorized by existing discharge permits issued by the Regional Board), unless mitigation as identified in mitigation measure 4.5-12 is provided. If the storm water component of the combined flow is a part of the total sub-basin assimilative capacity, which is fully allocated, then mitigation pursuant to mitigation measure 4.5-12 for recharge of the recycled water will be the same as if the recycled water had been directly recharged. However, if the assimilative capacity of the storm water has not been allocated, then mitigation will be based on the quality of the of the commingled storm flow and recycled wastewater.*
- 4.5-15 When recharge of water is proposed within the vicinity of an existing or known groundwater quality anomaly (contaminated groundwater plume), modeling and/or additional studies will be conducted to determine whether recharge of the recycled water will increase the local hydraulic gradient and cause more rapid spread of the existing plume. If existing domestic water production wells will be impacted by the plume a minimum of one year earlier than under pre-existing conditions, or if significant quantities of additional groundwater (more than 5,000 acre-feet) will become contaminated within a five year period due to the recharge of water, an alternative location for recharge will be selected to avoid not only the loss of the recharged water due to contamination, but also additional high quality groundwater due to more rapid expansion of the contaminated plume.
- 4.5-16 Whenever possible and feasible, OBMP projects that are highly capital intensive, or that employ workers who are onsite for more than just maintenance activities, will consider Figure 4.5-47 when siting specific project locations for OBMP facilities. Areas defined on this map that potentially may be affected by flood-hazards will be avoided, unless conjunctive use and flood-control operations demand that facilities must be located within these areas. If facilities are constructed in a flood zone, the facility will be brought to a level above flood hazards, or hardened against flood related impacts. Additionally, if facilities must be located within flood plains or hazard areas, a flood management program to minimize impacts to people and surrounding property will be created and implemented for each facility that may occur within these hazard areas.

- 4.5-17 Prior to implementation of any recharge projects as either existing or new basins, a management plan will be established to the satisfaction of SBCFCD. This plan will be created specifically for each individual basin to ensure the safety of surrounding property and people from undue risks associated with water-related hazards (i.e. flooding). The management plan will firmly establish a priority of flood-control functions over and above recharge-related operations. Weather forecasts of upcoming storm events will be carefully monitored and in the event of a significant forecasted storm-event, recharge deliveries the basins will be ceased until further notice is received from SBCFCD that it is safe for deliveries to resume. Additionally, no more than three days' percolative capacity of water will be allowed to sit in a basin at a time if such basin is also used for flood control activities. Additionally, each SBCFCD basin will have a specific management plan developed, so as to coordinate flood control with recharge. This mitigation measure will ensure that people and property are not subject to additional risk associated with water-related hazards in the Basin, and will allow SBCFCD to make full utilization of the basin's flood control capacity in the event of a storm.
- 4.6-1 Water active grading sites at least twice daily and when dust is observed migrating from the site. The project will comply with SCAQMD Rule 403 requirements where applicable. Rule 403 prohibits visible dust emissions beyond the property boundaries.
- 4.6-2 Suspend all grading and excavation operations when wind speeds exceed 25 mph.
- 4.6-3 Apply non-toxic chemical soil stabilizers according to manufacturers specifications to inactive construction areas (previously graded areas inactive for 10 days or more).
- 4.6-4 Replace ground cover or pave disturbed areas immediately after construction is completed in the affected area.
- 4.6-5 Sweep streets once a day and when soil material is observed on traveled roadways.
- 4.7-2 The CBWCD shall require the construction contractor to provide adequate traffic management resources during construction (signing protective devices, flag persons, etc.) to maintain safe traffic flow, particularly emergency access, on local streets at all times.
- 4.7-3 During construction the CBWCD shall require traffic hazards for vehicles, bicycles, and pedestrians be adequately identified and such traffic controlled to minimize hazards.
- 4.7-4 The CBWCD shall require the contractor to ensure no open trenches or traffic safety hazards be left in roadways during periods of time when construction personnel are not present (nighttime, weekends, etc.).
- 4.7-5 The CBWCD shall require all roads be repaired adequately after pipeline installation to ensure that traffic can move in the same manner as before construction without damage to vehicles.
- 4.7-6 Emphasize transportation demand management or non-motorized transportation alternatives for OBMP project related employees, where feasible, to reduce demand for roadway capacity.
- 4.7-7 Future OBMP facility ingress/egress shall be reviewed with the agency having jurisdiction or the roadway providing access, and roadway improvements required to eliminate any traffic hazards associated with access to a facility in accordance with standard agency requirements or prudent circulation system planning requirements.
- 4.10.1 For OBMP facilities that handle hazardous materials or generate hazardous waste the Business Plan prepared and submitted to the county or local city shall incorporate best management practices designed to minimize the potential for accidental release of such chemicals. The facility

managers shall implement these measures to reduce the potential for accidental releases of hazardous materials or wastes.

- 4.10-2 The business plan shall assess the potential accidental release scenarios and identify the equipment and response capabilities required to provide immediate containment, control and collection of any released material. Adequate funding shall be provided to acquire the necessary equipment, train personnel in responses and to obtain sufficient resources to control and prevent the spread of any accidentally released hazardous or toxic materials.
- 4.10-3 For the storage of any acutely hazardous material at an OBMP facility, such as chlorine gas, modeling of pathways of release and potential exposure of the public to any released material shall be completed and specific measures, such as secondary containment, shall be implemented to ensure that sensitive receptors will not be exposed to significant health threats based on the toxic substance involved.
- 4.10-4 All contaminated material shall be delivered to a licensed treatment, disposal or recycling facility that has the appropriate systems to manage the contaminated material without significant impact on the environment.
- 4.10-5 Before determining that an area contaminated as a result of an accidental release is fully remediated, specific thresholds of acceptable clean-up shall be established and sufficient samples shall be taken within the contaminated area to verify that these clean-up thresholds have been met.
- 4.10-6 During construction activities within existing road rights-of-way or other easements where continuous access is required, a road operation management plan shall be prepared and implemented. At a minimum this plan shall define how to minimize the amount of time spent on construction activities; how to minimize disruption of vehicle and alternative modes of traffic at all times, but particularly during periods of high traffic volumes; adequate signage and other controls, including flagpersons, to ensure that traffic can flow adequately during construction; the identification of alternative routes that can meet the traffic flow requirements of a specific area, including communication (signs, web pages, etc.) with drivers and neighborhoods where construction activities will occur; and at the end of each construction day roadways shall be prepared for continued utilization without any significant roadway hazards remaining.
- 4.11-1 Construction shall be limited to the hours of 7 a.m. to 7 p.m. on Monday through Friday, and between 9 a.m. to 6 p.m. on Saturday, and shall be prohibited on Sundays and federal holidays.
- 4.11-2 All construction vehicles and fixed or mobile equipment shall be equipped with properly operating and maintained mufflers.
- 4.11-3 All employees that will be exposed to noise levels greater than 75 dB over an 8-hour period shall be provided with adequate hearing protection devices to ensure no hearing damage will result from construction activities.
- 4.11-4 If equipment is being used that can cause hearing damage at adjacent noise receptor locations (distance attenuation shall be taken into account), portable noise barriers shall be installed that are demonstrated to be adequate to reduce noise levels at receptor locations below hearing damage thresholds.
- 4.12-1 OBMP facilities shall be fenced or otherwise have access controlled to prevent illegal trespass to attractive nuisances, such as construction sites or recharge sites.

- 4.15-1 All surface areas disturbed by OBMP construction activities, except those area used structures or hardscapes) shall be revegetated, either with native vegetation in natural landscapes or in accordance with a landscape plan in man-made landscape areas (note that native vegetation is also eminently suited to man-made landscapes and requires less maintenance). Once construction is completed, revegetation shall begin immediately and, where a formal landscape plan is being implemented, it shall be coordinated with the local agency and the local design guidelines for consistency.
- 4.15-4 When OBMP above ground facilities are constructed in the future, the local agency design guidelines for the project site shall be followed to the extent that they do not conflict with the engineering and budget constraints established for the facility.
- 4.15-5 All utilities for OBMP facilities shall be placed underground unless such undergrounding is not technically feasible.
- 4.15-6 Future project review and implementation shall implement the following:
- Use of low pressure sodium lights where security needs require such lighting to minimize impacts of glare.
 - Height of lighting fixtures shall be lowered to the lowest level consistent with the purpose of the lighting to reduce unwanted illumination.
 - Directing light and shielding shall be used to minimize off-site illumination.
 - No light shall be allowed to intrude into sensitive light receptor areas.

**Table 1
RECHARGE BASINS**

Basin Name	Mgmt Zone	Basin Recharge Capacity (AFY)			
		Stormwater			Imported Water
		Existing	Ultimate	Increase	
Existing Basins					
Brooks Street Basin	1	1,250	1,800	550	1,881
Montclair Basins	1	1,940	1,940	0	8,681
7 th and 8 th Street Basin Improvements	1	0	1,550	1,550	1,181
Upland Basin	1	760	1,000	240	4,935
Ely Basins	2	2,000	2,800	800	2,907
Etiwanda Spreading Basins	2	0	1,635	1,635	4,886
Hickory Basin	2	0	840	840	2,606
Lower Day Basin	2	0	500	500	2,345
San Sevaine No.'s 1 - 3	2	1,010	1,480	470	12,899
San Sevaine No.'s 4 and 5	2	60	500	440	4,601
Turner Basin No. 1	2	200	860	660	505
Turner Basin No. 234	2	0	1,800	1,800	1,895
Victoria Basin	2	240	940	700	2,883
Banana Basin	3	0	800	800	2,020
Declez Basin	3	0	260	260	977
Etiwanda Conservation Ponds	3	0	1,060	1,060	3,257
Jurupa Basin	3	0	650	650	635
Wineville Basin	3	0	700	700	586
New Basins					
College Heights Basins	1	0	100	100	8,958
RP-3 Basin	3	0	1,700	1,700	4,886
Totals =		7,460	22,915	15,455	73,523

Table 2
TABLE ES-1 OF BASIN RECHARGE CAPACITY AND COST

Basin Name	Mgmt Zone	Potential Basin Capacity (AFY)			Total Increased Cap. for Recharge (AFY) ¹	Project Capital Cost ('000)	Project Total Cost ('000)	\$ / AF
		Storm Water	Imported Water	Recycled Water				
Existing Basins								
Brooks Street Basin	1	1,800	1,881	920	3,351	\$1,630	\$10,446	\$156
Montclair Basins	1	1,940	8,681	2,655	11,336	\$1,888	\$38,973	\$172
7 th and 8 th Street Basin Improvements	1	1,550	1,181	683	3,413	\$2,015	\$7,786	\$114
Upland Basin	1	1,000	4,935	1,484	6,658	\$1,217	\$36,645	\$172
Ely Basins	2	2,800	2,907	1,427	5,134	\$2,169	\$15,804	\$154
Etiwanda Spreading Basins	2	1,635	4,886	1,630	8,151	\$483	\$21,663	\$133
Hickory Basin	2	840	2,606	861	4,307	\$2,105	\$13,383	\$155
Lower Day Basin	2	500	2,345	711	3,557	\$2,345	\$12,351	\$174
San Sevaine No.'s 1 - 3	2	1,480	12,899	3,595	16,964	\$723	\$55,036	\$162
Rich Basin	2	860	2,524	846	4,050	\$2,185	\$13,137	\$162
San Sevaine No.'s 4 and 5	2	500	4,601	1,275	6,316	\$3,806	\$23,163	\$183
Turner Basin No. 1	2	860	505	341	1,506	\$3,031	\$5,610	\$186
Turner Basin No. 234	2	1,800	1,895	924	4,619	\$3,611	\$12,484	\$135
Victoria Basin	2	940	2,883	956	4,538	\$544	\$13,026	\$144
Banana Basin	3	800	2,020	705	3,524	\$2,354	\$11,179	\$159
Declez Basin	3	260	977	309	1,546	\$1,768	\$5,966	\$193
Etiwanda Conservation Ponds	3	1,060	3,257	1,079	5,397	\$2,463	\$16,566	\$153
Jurupa Basin	3	1,700	4,886	1,646	8,232	\$1,030	\$22,247	\$135
Wineville Basin	3	650	635	321	1,606	\$1,579	\$4,580	\$143
New Basins								
College Heights Basins	1	100	8,958	2,264	11,322	\$5,364	\$42,557	\$188
RP-3 Basin	3	2,040	2,932	1,243	6,214	\$4,625	\$17,932	\$144
Totals =		25,115	78,392	25,877		\$46,935	\$400,534	

¹ Sum of Basin Capacity minus Existing Basin Recharge