FINAL DRAFT

STAFF REPORT

PROPOSED IMPLEMENTATION OF THE WATER RESOURCES DEVELOPMENT ASSESSMENT TO PURCHASE UNTREATED IMPORTED WATER FOR STORMWATER AUGMENTATION

(Watermaster Drought Management Plan)

PREFACE

The State of California, and especially southern California, has experienced unprecedented drought conditions for the last five years. These drought years have had especially significant impacts on the San Gabriel River watershed, the San Gabriel Valley, and Main San Gabriel Basin groundwater supply. In the San Gabriel Valley, local rainfall and runoff from the San Gabriel River watershed replenishes a vast groundwater storage basin that can store in excess of 8 million acre-feet of water. This local rainfall, runoff, and groundwater basin storage provides about 85 percent of the water supply to over one million residents of the San Gabriel Valley. (One acre-foot of water can supply two families for one year). The remaining water supply is generally provided by the importation of water from the State Water Project (SWP) and the Colorado River. However, at the time the Basin adjudication was being developed, Producers collectively made a conscientious decision to invest in infrastructure to produce groundwater (wells, booster pump station, and reservoirs) instead of taking fully treated imported water (at pressure) directly into their distribution systems. Production in excess of groundwater rights were delivered as untreated imported water to replenish the groundwater basin. At the time, untreated imported water was considered very reliable. The management approach to optimize the use of the groundwater supplies by annually establishing an Operating Safe Yield coupled with Replacement Water deliveries avoided a firm monthly demand on regional treated water supplies. Consequently, most Producers in the Main Basin do not have treated imported water connections and cannot interchangeably use groundwater and treated imported water.

During this 5-year drought, many actions were taken (described herein) to help off-set the lack of local rainfall and runoff replenishment. However, by far, the biggest impact has been to the groundwater basin storage, where a net of about 400,000 acre-feet has been pumped from the Basin to meet water demands, and has not been replaced. This has resulted in Basin groundwater levels, and storage, dropping to unprecedented low levels and threatening the ability pump groundwater from the Basin. To address these conditions, the Main San Gabriel Basin Watermaster (Watermaster) has taken

progressively more aggressive steps and actions described herein. This Staff Report documents these Watermaster actions and presents a plan of action (Watermaster Drought Management Plan) to address expected future state and local dry and restricted imported water supply conditions.

INTRODUCTION

The Main San Gabriel Basin Watermaster (Watermaster) has managed the water supply of the Main San Gabriel Basin, and it's Relevant Watershed, since Judgment was entered in 1973. Section 42 of the amended Main San Gabriel Basin Judgment (Main Basin Judgment), states in part "...Watermaster shall recharge Replacement Water in accordance with the Watermaster Operating Criteria, and, insofar as practicable, maintain the water level at the Key Well above elevation two hundred (200)...." The long-term average annual precipitation in the San Gabriel Valley is about 18.5 inches. Between fiscal year 1973-74 and fiscal year 2010-11 (before the extended drought), the average annual precipitation, as measured at Station Number 96C-E (Puddingstone Dam), was about 19.4 inches, and is generally consistent with the long-term average. Over that same period of time, the groundwater elevation, as measured at the Baldwin Park Key Well (Key Well), was 247.4 feet above mean sea level (amsl) as of July 1, 1973, and was 234.0 feet amsl as of June 30, 2011. Over the same period of time, the average annual untreated Replacement water deliveries were about 36,700 acre-feet per year and the average annual stormwater replenishment was about 110,700 acre-feet per year. Figure 1 shows there was no accumulated departure from average of the stormwater replenishment as of June 2011. Watermaster's management of the Main Basin has been consistent with the terms of Section 42 of the amended Judgment and resulted in only a 13-foot "net change" in the groundwater elevation, as measured at the Key Well, over a 38-year period (fiscal years 1973-74 to 2010-11).

Over the past five fiscal years (commencing fiscal year 2011-12), the average annual precipitation at Puddingstone Dam has been about 8.9 inches, which is less than 50 percent of the long-term average of 18.5 inches. Over those five years, the groundwater elevation at the Key Well has decreased from about elevation 234.0 feet

amsl, as of July 1, 2011, to about elevation 173 feet on June 30, 2016 (historically low elevation). The past five fiscal years have been the lowest five consecutive years of precipitation since entry of the Judgment. During these past five fiscal years, the below-average precipitation has resulted in a total of about 130,000 acre-feet of stormwater runoff for replenishment of the Basin, whereas the long-term average stormwater runoff replenishment would have totaled about 510,000 acre-feet for these five fiscal years. At the end of fiscal year 2010-11, the Key Well was about 234 feet amsl, and comfortably within the Basin operating criteria of 200 feet to 250 feet amsl. However, fiscal year 2011-12 became the first year of a prolonged 5-year drought for the San Gabriel Valley. The significant departure from the historical average stormwater replenishment since July 2011 is reflected on Figure 1, shown as the "5-Year Drought". The absence of local stormwater runoff for replenishment (about 380,000 acre-feet) represents a decrease of about 50 feet in elevation at the Key Well.

Since the start of this 5-year drought (fiscal year 2011-12), the Watermaster has progressively become more pro-active by implementing provisions of the Judgment, and developing and instituting new studies, programs and plans to address the drought conditions as they progressively worsened.

In Watermaster's most progressive program, it has proposed a new basinwide program to deliver untreated imported water, in addition to annual Replacement Water deliveries, to augment the lack of stormwater runoff for replenishment that has been experienced over the past five years. This Staff Report reviews the actions taken by Watermaster under the Main Basin Judgment, describes how these management tools helped to maintain groundwater levels throughout the Main Basin, describes the 2012 Judgment Amendments to provide increased management flexibility, including the new Water Resource Development Assessment, and reviews the actions taken and observed benefits to the Main Basin on an annual basis for the last 5 fiscal years. Lastly, this Staff Report provides additional framework for the Watermaster to manage the Basin under expected future dry and restricted imported water supply conditions.

REVIEW OF JUDGMENT PROVISIONS FOR BASIN MANAGEMENT

Part F of the Main Basin Judgment provides the "Physical Solution" for the operation and management of the Main Basin (the Main Basin Judgment, as amended June 21, 2012, is included as Appendix A, but excludes Exhibits). Relevant sections associated with the Physical Solution are noted below.

Section 38. Purpose and Objective. "...the purpose and objective of these provisions is to provide a legal and practical means for accomplishing the most economic, long term, conjunctive utilization of surface (water), Ground Water, Supplemental Water and Groundwater storage capacity to meet the needs and requirements of the water users dependent upon the Basin and Relevant Watershed, while preserving existing equities."

Section 39. Need for Flexibility. "In order that Watermaster may be free to utilize both existing and new and developing technological, social and economic concepts for the fullest benefit of all those dependent upon the Basin, it is essential that the Physical Solution hereunder provide for maximum flexibility and adaptability. To that end, the Court has retained continuing jurisdiction to supplement the broad discretion here granted to the Watermaster."

Section 40. Watermaster Control. "...it is essential that Watermaster have broad discretion in the making of Basin management decisions within the ambit hereinafter set forth. The maintenance, improvement, and control of the water quality and quantity of the Basin, withdrawal and replenishment of supplies of the Basin and Relevant Watershed, and the utilization of the water resources thereof, must be subject to procedures established by Watermaster in implementation of the provisions of this Judgment. Both the quantity and quality of said water resource are thereby preserved and its beneficial utilization maximized."

Section 41. General Pattern of Contemplated Operations. "...Watermaster will determine annually the Operating Safe Yield of the Basin and will notify each Pumper of

his share thereof, stated in acre feet per Fiscal Year. Thereafter, no party may Produce in any Fiscal Year an amount in excess of the sum of his Diversion Right, if any, plus his Pumper's Share of such Operating Safe Yield, or his Integrated Production Right, or the terms of any Cyclic Storage Agreement, without being subject to Assessment for the purpose of purchasing Replacement Water. In establishing the Operating Safe Yield, Watermaster shall follow all physical, economic, and other relevant parameters provided in the Watermaster Operating Criteria. Watermaster shall have Assessment powers to raise funds essential to implement the management plan in any of the several special circumstances herein described in more detail."

Section 42. Basin Operating Criteria. "...Watermaster shall recharge Replacement Water in accordance with the Watermaster Operating Criteria and, insofar as practicable, to maintain the water level at the Key Well above elevation two hundred (200)."

The Main Basin Watermaster has consistently followed these provisions of the Main Basin Judgment when making management decisions concerning water supply in the Main Basin. Notwithstanding, the unprecedented drought has prompted the Main Basin Watermaster to consider additional management strategies, as allowed in the amended Judgment sections cited above.

REVIEW OF BASIN MANAGEMENT ACTIONS UNDER THE JUDGMENT

The Main San Gabriel Basin Judgment (Main Basin Judgment) was entered January 4, 1973, under the continuing jurisdiction of the Court. The Main Basin Judgment established a nine-member Watermaster, consisting of six Producer representatives and three representatives appointed by Responsible Agencies. Under the terms of the Main Basin Judgment, all rights to the diversion of surface water and production of groundwater within the Main Basin and its Relevant Watershed were adjudicated. The Main Basin Judgment does not restrict the quantity of water; which parties may extract from the Main Basin. Rather, it provides a means for replacing all annual extractions in excess of a Party's annual right to extract water with Supplemental Water. The Main

Basin Watermaster annually establishes an Operating Safe Yield for the Main Basin, which is then used to allocate to each Party its portion of the Operating Safe Yield, which can be produced free of a Replacement Water Assessment. If a producer extracts water in excess of its right under the annual Operating Safe Yield, it must pay an assessment for Replacement Water, which is sufficient to purchase one acre-foot of Supplemental Water to be spread in the Main Basin for each acre-foot of excess production. Replacement Water is purchased by Watermaster from the three Responsible Agencies, the Upper San Gabriel Valley Municipal Water District (Upper District) and Three Valleys Municipal Water District (Three Valleys District), under the Metropolitan Water District of Southern California (MWD), and San Gabriel Valley Municipal Water District (San Gabriel District).

Cyclic Storage Agreements – Pre-purchase Replacement Water

Replacement Water to replace over-production within the Main Basin is supplied by the Responsible Agencies from imported water supplies (State Water Project (SWP) and Colorado River). Because these imported water supplies may be limited during some years, the Main Basin Watermaster has entered into a Cyclic Storage Agreement with each of the three Responsible Agencies for them to acquire and store imported water within the Basin for a future Replacement Water obligation. One is with MWD and Upper District, which permits MWD to deliver and store imported in an amount not to exceed 100,000 acre-feet for future Replacement Water obligations. The second Cyclic Storage Agreement is with Three Valleys District and permits Three Valleys District to deliver and store up to 40,000 acre-feet for future Replacement Water obligations. The third is with San Gabriel District and permits San Gabriel District to deliver and store up to 50,000 acre-feet for future Replacement Water obligations.

In addition, the Watermaster has entered into Cyclic Storage Agreements with many of the producers in the Basin. This allows a producer who anticipates a Replacement Water obligation to also pre-purchase imported water and store it in the Main Basin to meet its Replacement Water obligation. The use of Cyclic Storage Agreements by the Responsible Agencies and by producers allows for the delivery of imported water when

it is available and allows for the purchase of imported water before anticipated rate increases. The use of Cyclic Storage Agreements also helps to maintain higher Main Basin water levels and storage.

Annual Operating Safe Yield

The annual setting of Operating Safe Yield historically has been the single most important Main Basin management action of the Watermaster Board. Many factors are considered by the Watermaster Board in setting the annual Operating Safe Yield, including the Engineers Report, Main Basin water levels and conditions, hydrologic trends, local and supplemental water in storage, availability of imported supplemental water, economic impacts, and other information.

Since the Operating Safe Yield can directly impact the quantity of imported supplemental water that may be purchased and replenished to the Basin Section 42 of the Judgment is key to managing water supplies in the Basin and states, in part, "...Watermaster (Board) shall recharge Replacement Water in accordance with the Watermaster Operating Criteria and, insofar as practicable, to maintain the water level at the Key Well above elevation two hundred (200)". From entry of the Judgment in 1973-74 through 2010-11 (38 years) the Watermaster generally accomplished this goal. After 2010-11, due to unprecedented drought conditions, the Watermaster developed additional management tools to help address the five-year drought.

Five-Year Drought/Watermaster Progressive Management

FY 2011-12

In the spring of 2011 the Baldwin Park Key Well was at about 235 feet and the OSY for FY 2011-12 was set at 210,000 AF. These are both considered very "normal" conditions based on historical trends. (The operating range for the Key Well is between 200 feet and 250 feet, and the long-term average OSY has been about 195,000 AFY.) However, because the Key Well had fallen to a new historic low elevation in late-2009 and the Responsible Agencies experienced a temporary cessation of imported

replenishment water as the result of a unilateral, and unanticipated, decision by MWD, the Watermaster implemented several drought-related programs, as described below:

Judgment Amendments – Amendments to the Judgment required several years of significant coordination by the Watermaster. Judgment Amendments were approved by the Court in June 2012. A key component was the new Water Resource Development Assessment (RDA) which is levied on all production. The RDA was designed to help address the potential future unavailability of imported replenishment water supplies, by allowing the Watermaster to collect RDA funds and purchase replenishment water for storage in the Basin to offset a future Replacement Water Obligation that cannot be met by a Responsible Agency. This program increased the water supply and reliability within the Basin, and helped to ensure the Judgment provisions and Physical Solution for Replacement Water obligations will be met. Also, at the time a replenishment program using Recycled Water was being discussed. The RDA Policy, adopted and incorporated into the Rules and Regulations, only anticipated two scenarios (development of a new source of Supplemental Water supply and emergency storage of Supplemental Water), but the RDA may be used for additional purposes.

Ad Hoc Committee on OSY – The Watermaster convened an Ad Hoc Committee on OSY to review the hydrologic conditions and Watermaster actions leading up to the historic low Key Well elevation in 2009. The Ad Hoc Committee reviewed the several years of local drought that preceded the historic low Key Well elevation, and recognized the Judgment and Physical Solution provided the flexibility to establish the OSY, and resulting Replacement Water purchases, as the primary tool to lessen the impact of decreasing water levels which resulted from insufficient local storm water replenishment. A review of the prior OSY's shows that setting an unusually high OSY will result in unused Carry-over water rights that effectively can negatively impact the delivery of Replacement Water to the Basin for many years into the future. If this occurs during a local drought, the Basin water levels and supplies can diminish quickly. A variety of alternative OSY scenarios were discussed, including a fixed OSY at 200,000 acre-feet per year (which approximates the adjudicated pumping rights), and varying the

OSY between 200,000 acre-feet and 180,000 acre-feet based on the groundwater elevation at the Key Well. The Ad Hoc Committee advised the Engineer not to recommend, and the Watermaster to not set, unusually high OSY's and to moderate year-to-year change in OSY to no more than about 20,000 AFY (see Appendix B).

Ad Hoc Committee on Storm Water Capture – The Watermaster convened an Ad Hoc Committee on storm water capture to help address the local drought conditions that resulted in the historic low Key Well elevation in 2009. The Ad Hoc Committee performed extensive research on past and current studies, and coordinated closely with the Los Angeles County Department of Public Works (LACDPW) to identify and prioritize several potential new and enhanced storm water capture projects (see Appendix C). The primary focus was increased local stormwater replenishment The Watermaster has continued to coordinate with LACDPW to plan and implement these projects.

Conservation – Since the Basin was operating under relatively normal conditions, no active water conservation programs at the retail customer level were implemented. Although Watermaster has always supported and encouraged producers to implement water conservation measures, it has no control of water conservation at the retail level.

During FY 2011-12, production from the Basin was nearly 240,000 AF, and local rainfall (Puddingstone Dam) was about 12-inches, about 65 percent of long-term average. As of the end of FY 2011-12, the groundwater level at the Key Well lowered to about 226 feet. It was not known that FY 2011-12 would be the first year of a sustained 5-year severe local drought.

FY 2012-13

Due, in part, to the very dry FY 2011-12, the Watermaster reduced the OSY for FY 2012-13 to 200,000 AF. With concerns for the previous historic low Key Well elevation in 2009, the Watermaster continued implementation of its drought-related programs, as described below:

Judgment Amendments/Implantation – During FY 2012-13 the Watermaster implemented several of the programs included in the Judgment Amendments, including a new annual 3-year imported water purchase plan for the Responsible Agencies to plan deliveries (see Appendix D), an RDA was developed to collect assessments on all production to pre-purchase additional Replacement Water for Watermaster's storage account. Each of these programs are designed to provide more Replacement Water to the Basin and provide more reliable Basin water supplies.

Replacement Water for Replenishment – During FY 2012-13 the Watermaster declared its support for a new recycled water supply project for Basin replenishment, developed by Upper District, which is the largest of the three Responsible Agencies in the Main Basin. When completed, the project could supply about 25 percent of the overall imported replenishment water, from a new, more reliable source of water supply. Anticipated project implementation at that time was estimated to be 5 to 6 years.

State Water Resources Control Board (SWRCB) Drought Resolution – Consistent with actions by the SWRCB, the Watermaster passed Resolution No. 03-14-260 declaring "drought conditions" and encouraged all Basin water producers to adopt reduced pumping and water conservation activities at the retail level (see Appendix E). During FY 2012-13, production from the Basin was about 240,000 AF, and local rainfall was about 8-inches (about 44 percent of long-term average) and local stormwater replenishment was 24,600 acre-feet. As a result, the groundwater level at the Key Well lowered to about 203 feet by the end of FY 2012-13. It was not known that FY 2012-13 would be the second year of a sustained 5-year local drought.

FY 2013-14

Due in part to the groundwater level at the Key Well falling near the minimum operating level of 200 feet, and a very dry FY 2012-13, the Watermaster reduced the OSY for FY 2013-14 to 180,000 AF. These new dry conditions and lower Basin water levels caused

the Watermaster to continue its drought programs, and to develop new, more aggressive drought programs, as described below:

Judgment Amendments/Implementation – The Watermaster continued to implement the drought impact programs included in the Judgment Amendment, including the annual 3-year imported water purchase plan, the RDA imported replenishment water purchases (see Appendix F)., and a new storage and export agreement. The storage and export agreement is designed to deliver additional imported water for Basin replenishment and includes managed extraction and export of the stored water.

New Line of Credit – The Watermaster found that the availability of imported water for replenishment has become significantly more variable. When imported water is available, funds are needed to purchase the water. Therefore, the Watermaster coordinated and funded a "line of credit" to support the short-notice and short-term purchase of imported water for Basin replenishment. Watermaster maintained that line of credit for over two years at a substantial cost; unfortunately, during that time period no additional Supplemental Water was available for purchase.

Incentivize Pre-purchase of Replacement Water – To encourage Producers to pre-purchase their Replacement Water, the Watermaster restructured its Replacement Water rates to provide a financial incentive for Producers to purchase and store more imported replenishment water. The program is very effective in helping maintain higher Key Well elevations with Cyclic Storage water.

Basinwide Low Water Vulnerability Assessment – Due to the continued dry local conditions, and continued lowering of the groundwater level at the Key Well and Basin water supplies, the Watermaster initiated an evaluation of the potential impacts to production wells and local potable water supplies, if the current local drought continues and the groundwater level at the Key Well continues to lower. The Watermaster used its basinwide groundwater model and well logs of existing wells to evaluate potential impacts to wells if the groundwater level at the Key Well elevation should lower to new

historic low elevations. Based upon the current Key Well elevation of about 190 feet, the Watermaster evaluated the potential impacts associated with the Key Well lowering to 170 feet, and provide this information to the Basin producers. The Watermaster also updated the basinwide information on water purveyor inter-connections to assist these purveyors in the event their water supplies from groundwater wells are reduced due to drought.

During FY 2013-14, production from the Basin was about 240,000 AF and local rainfall was about 5-inches (about 30 percent of long-term average) and local stormwater replenishment was 21,900 acre-feet. As a result, the Key Well lowered to about 188 feet and was the new historic low elevation. After three consecutive years of local rainfall and runoff for replenishment being significantly below long-term average, the concerns regarding water supply within the Basin significantly increased.

FY 2014-15

With the Key Well elevation below the previous historic low of about 189 feet, and after experiencing three consecutive years of severe local drought, the Watermaster reduced the OSY for FY 2014-15 to 150,000 AF, a reduction of 30,000 AF in one year and very near the historic lowest OSY set by the Watermaster. The Watermaster and Basin producers again initiated new, more aggressive and unprecedented efforts to manage local water supplies, as described below:

Judgment Amendments/Implementation – The Watermaster continued to implement the drought impact programs included in the Judgment Amendments, including the annual 3-year imported water purchase plan, and the RDA was used to purchase and store about 5,000 AF of imported water to Watermaster's Basin storage account.

Imported Water Supply – As a result of statewide drought, the Department of Water Resources established the calendar year 2014 SWP allocation at 5 percent of the Table A Entitlement. The Metropolitan Water District of Southern California (MWD) implemented its Water Supply Allocation Program (WSAP) that reduced imported water

deliveries for replenishment purposes. The Watermaster and Producers responded by purchasing all of the imported water that it could fund prior to implementation of WSAP. Watermaster developed and implemented the imported water "in-lieu" program, where Watermaster funded a producer's cost difference to take direct delivery of MWD imported water "in-lieu" of pumping from its groundwater wells. This program was initially directed towards Producers which typically incurred a Replacement Water obligation and had an existing treated water connection with MWD. The program was expensive to implement compared to replenishment of untreated imported water; it required an additional $1,000,000 for every 3,500 acre-feet of treated imported water delivered in-lieu of untreated imported water. This "in-lieu" program provided imported water to the Basin, and preserved groundwater in the Basin (see Appendix G).

Basinwide Low Water Vulnerability Assessment – Due to continued dry conditions and the lowering of the Key Well elevation, the Watermaster expanded its evaluation of Basinwide impacts of lower groundwater levels, the groundwater model was used to further evaluate potential impacts associated with a Key Well elevation lowering to 165 feet. In addition, Watermaster evaluated potential impacts to well production by including well "draw-down" estimates throughout the Basin. This allowed well owners to estimate the actual pumping water level at each well and evaluated the potential water supply impacts. Additional work was also performed to support the water purveyors' potential use of inter-connections which could be used to distribute available imported water as direct delivery to the water systems in the event groundwater supplies were impacted.

Assist Drought Impacted Purveyors – In the upper portion of the Basin (Canyon Basin), the extreme local drought conditions, along with MWD's WSAP restrictions on imported water for replenishment, resulted in some water purveyor wells potentially running out of groundwater supply (City of Glendora, City of Azusa, and California American Water Company). The groundwater levels in the Canyon Basin had fallen to elevation 540 feet above mean sea level during the beginning of summer 2014 due the lack of local stormwater runoff replenishment, as shown on Figure 2. Consequently, the

Watermaster, along with the Responsible Agencies, coordinated the special delivery of untreated imported water to the Upper Canyon replenishment basins, and thereby helped keep impacted wells in service. Since July 2014, the Watermaster and Responsible Agencies have delivered a total of about 80,000 acre-feet of untreated imported water to the Canyon Basin to directly benefit impact Producers' production wells, while the collective Replacement Water obligation for those Producers has totaled about 20,000 acre-feet. As a result, the groundwater levels increased to about 620 feet amsl as of January 2015 and have been maintained at that elevation since then, as shown on Figure 2.

Public Outreach/Conservation – The Watermaster continued its Basinwide message on the severe drought and need for retail water conservation. Watermaster worked with the San Gabriel Valley Water Association to report status of the Key Well elevation and Basin storage levels on a weekly basis.

During FY 2014-15, production from the Basin decreased significantly to about 210,000 AF; a one-year reduction of about 30,000 AF. Local rainfall was about 8 inches (less than 45 percent of long-term average) and local stormwater replenishment was 14,500 acre-feet. As a result, the Key Well elevation lowered to about 177 feet and began establishing new historic low Key Well elevations during that year. FY 2014-15 established the fourth consecutive year of extreme drought conditions and the Watermaster began to look at extreme measures to help with Basin water supply recovery. It is also apparent that the significant water conservation efforts along with the Producer's efforts to purchase imported replenishment water their Cyclic Storage accounts dramatically lessened the impacts of sustained severe drought.

FY 2015-16

With the Key Well elevation setting new historic low water levels during FY 2014-15 (the fourth consecutive year of extreme drought) the Watermaster evaluated the water supply conditions and determined that setting the OSY lower than 150,000 AFY would not provide material benefit to the Basin water supply, and would have direct economic

impacts to the water purveyors and their customers within the Basin. The OSY was set at 150,000 AF for FY 2015-16. The Watermaster continued its unprecedented efforts to manage local water supplies, including:

- Annual 3-year imported water purchase plan
- Collection of the RDA and purchase of additional imported replenishment water for Watermaster's storage account
- In-lieu deliveries to the Basin as MWD direct deliveries to reduce pumping
- Vulnerability assessment of all Basin wells and coordination of purveyor inter-connections
- Special delivery of imported replenishment water to the Canyon Basins
- Continued outreach to water producers for continued retail water conservation
- Encourage Producers to purchase available imported replenishment water for Producer Cyclic Storage

Development of Stormwater Augmentation Program – As the potential for a fifth consecutive year of extensive drought became a possibility, the Watermaster evaluated other even more extreme ways to help manage Basin water supplies. While southern California remains in extreme drought, the northern part of the state received above-average precipitation. As a result, imported replenishment water was being made available. The Watermaster evaluated the extended drought conditions and determined that during the last5 years, nearly 400,000 AF had been pumped from the Basin and not replaced by local rainfall and runoff replenishment that are consistent with long-term conditions. The Watermaster developed a conceptual "stormwater/replenishment augmentation program", whereby the RDA would be repurposed to purchase available imported water to supplement the shortage of local stormwater replenishment. The new RDA will be on all production and the purchased water would be added to the natural Basin water supply, with no specific rights to recover the water. The conceptual RDA is a clear expansion to the Basin management and Physical Solution.

During FY 2015--16, production from the Basin again decreased significantly to about 190,000 AF, another one-year reduction of nearly 20,000 AF. Local rainfall was about

12 inches, about 65 percent of the long-term average. As a result, the Key Well elevation reached a new historic low elevation of about 172 feet, and ended the FY at about 177 feet. Again, the significant water conservation efforts and the Producer's efforts to purchase imported replenishment water for their Cyclic Storage accounts, dramatically lessened the impacts of sustained severe drought.

WATERMASTER DROUGHT MANAGEMENT PLAN

General

The extreme, sustained 5-year drought experienced by the Main San Gabriel Basin has been carefully evaluated by the Watermaster. The Watermaster evaluation has demonstrated the sustained 5-year drought occurred beyond the Basin management capabilities of the Judgment, the Physical Solution, and the progressively more aggressive actions implemented by the Watermaster. Under the terms of the Judgment and Physical Solution, the Basin water supplies are to be managed by setting the OSY such that enough Replacement Water is purchased and replenished to the Basin, to maintain acceptable water levels. In a year with average annual precipitation and local runoff replenishment, there is little or no "net" change in the groundwater levels, indicating groundwater replenishment and extractions are in balance. This is reflected on Figure 3, where average annual production (about 225,000 acre-feet) is balanced by local stormwater capture, deep infiltration of rainfall and Replacement Water deliveries. There is no net withdrawal of groundwater from storage. In comparison, over the past five years average annual precipitation has been about 50 percent of average, and the groundwater levels have decreased by an annual average of about 12 feet per year (about 96,000 acre-feet per year) over those five years, indicating groundwater replenishment and extraction are not in balance. This is reflected on Figure 4, where average annual production (about 225,000 acre-feet) is balanced by a net withdrawal from groundwater storage (96,000 acre-feet per year) in addition to stormwater capture, deep infiltration of rainfall and Replacement Water deliveries. Figure 5 reflects this imbalance on an annual basis over the past five years. During the sustained 5-year drought, the Watermaster and the Producers essentially purchased all of the (Tier 1) imported replenishment water that was available, as either Replacement Water or

Cyclic Storage, and the Basin still experienced severe low groundwater levels and Basin storage. In other words, had the OSY been used even more aggressively (reduced) in the first year of the drought (FY 2011-12), and maintained at a lower level through 2015-16, it would not have significantly impacted the severe low groundwater levels and Basin storage conditions that were experienced.

As a result of Watermaster's evaluation of the recent 5-year sustained severe drought, the Watermaster established a Stormwater/Replenishment Augmentation Program to help manage the Basin water supplies for the long term. The Stormwater/Replenishment Augmentation Program, along with other complementary programs, is presented as the Basin long-term water supply sustainability plan for the Main San Gabriel Basin (Drought Management Plan).

During the five-year drought, the groundwater level at the Key Well decreased over 60-feet, reflecting a net withdrawal from storage of about 480,000 acre-feet. In that same period of time, the amount of untreated imported water held in cyclic storage increased from 56,200 acre-feet to 57,500 acre-feet. In addition, the Puente Basin Water Agency had about 14,600 acre-feet in storage, bringing the total to about 72,000 acre-feet. During fiscal year 2016-17 Watermaster, Producers and Responsible Agencies collectively purchased and delivered an additional 62,000 acre-feet to the Basin, bringing the total amount of stored untreated imported water to about 134,000 acre-feet. These recent deliveries reflect total about 76,600 acre-feet (14,600 + 62,000), which represents about 10 feet of increased elevation at the Key Well.

ALTERNATIVES ANALYSIS

In addition to development of the Stormwater/Replenishment Augmentation Program ("Recommended Alternative"), Watermaster considered three other "alternatives" to address the decreased groundwater levels: 1) "No Project", 2) "Restrict Groundwater Production" and require Producers to purchase treated imported water to meet water demands, and 3) deepen bowls/construct deeper wells to access groundwater ("Mine the Basin").

"No Project" – Under the "No Project" alternative Watermaster would continue to manage the Basin as described under the Physical Solution. Based on existing annual hydrology, the groundwater elevation at the Baldwin Park Key Well, stormwater runoff replenishment and availability of untreated imported water supplies, the Watermaster Board would consider the Engineer's recommended Operating Safe Yield. The Basin would continue to be managed solely through delivery of Replacement Water, as the result of production in excess of a water right. However, this approach simply "backfills" the Basin from an accounting standpoint and does not add "new" water to the Basin to account for the reduced local stormwater runoff as the result of below average precipitation. In addition, the experience of the recent 5-year drought has clearly showed that 100 percent reliance on setting the OSY, Replacement Water, and the availability of untreated imported water for Basin replenishment is inadequate to reasonably "...maintain the Water level at the Key Well above elevation two hundred (200)...", as required by Section 42 of the Amended Judgement. For these reasons, the "No Project" alternative is not recommended.

"Restrict Groundwater Production" Alternative -- Under this alternative the Judgment would have to be amended, the Physical Solution would be modified, and the provision of an Operating Safe Yield and Replacement Water would no longer apply. Instead, the Producers' water rights would be fixed permanently and any water purveyor water demands in excess of water rights would need to be met throughout the direct purchase of treated imported water. However, at the time the Basin adjudication was being developed, Producers collectively made a conscientious decision to invest in infrastructure to produce groundwater (wells, booster pump station, and reservoirs) instead of taking fully treated imported water (at pressure) directly into their distribution systems. The Basin was designed to serve as a transmission and distribution system for the Basin producers, using groundwater replenishment as the source of water supply. Restricting groundwater production could result in a stranded investment in infrastructure, significant additional cost for new treated imported water connections, water quality impacts as a result of incompatible disinfection practices, an increase in

the cost to purchase treated imported water compared to untreated imported water for groundwater replenishment, and a significant new "firm" water demand on MWD and imported water supplies and treatment. For these reasons, the "Restrict Groundwater Production" alternative is not recommended.

Deepen Bowls/Construct Deeper Wells ("Mine the Basin") Alternative -- The groundwater elevation at the Key Well lowered to about 173 feet above mean sea level (amsl), as of June 30, 2016. Although the groundwater elevation decreased to a historic low, there is still an estimated 7.4 million acre-feet of groundwater in storage in the Basin. It is possible to modify pumping equipment at existing wells, deepen wells and/or construct new, deeper wells in an effort to continue to produce groundwater. However, the Judgment requires the Watermaster and the Producers to operate the Basin, to the extent possible, no deeper than 200 feet above mean sea level as measured at the Key Well. Therefore, the Judgment would need to be amended. To modify and/or drill new wells throughout the Basin would be significant financial investment, and would require on-going higher pumping costs. Water quality at these deeper elevations may also be a concern. Lastly, whether or not the Basin is operated at a lower elevation, there is still the need for a management plan to stabilize Basin water levels. For this reason, the "Mine the Basin" alternative is not recommended.

The "Recommended" Stormwater/Replenishment Augmentation Program alternative is discussed in detail below.

Part 1 – Stormwater Augmentation Using Water Resource Development Assessment (New RDA II)

(Note: The sustained 5-year drought from FY 2011-12 through 2015-16 is currently being interrupted by above-average local rainfall during FY 2016-17. Severe impacts of the 5-year drought are still evident, and the drought conditions may reoccur as early as FY 2017-18).

The Watermaster has developed a conceptual plan to use RDA funds to purchase imported replenishment water for the "general benefit" of all Producers within the Basin. Unlike the original RDA, which is a Watermaster pre-purchase of Replacement Water, the RDA II water will simply supplement the lack of local stormwater replenishment, and have "no right of recovery" using a water right, by any Basin Producer.

The RDA Stormwater Augmentation Program (Program) is developed by the Watermaster to help manage Basin water supplies under the perceived "worst case" conditions, which may be two consecutive 5-year droughts, using the same conditions of the recent FY 2011-12 through 2015-16 severe drought. Based upon 10 additional consecutive years of drought, the new RDA II is intended to purchase enough imported replenishment water, as stormwater augmentation, to maintain the Key Well elevation above 180 feet. This Key Well elevation essentially ensures continued Basin water supply to the Basin Producers under the worst case, 15-year sustained drought. The RDA II Program is established to start at $40/AF in FY 2016-17 and increase to $175/AF in FY 2020-21. Below is the 5-year ramp-up schedule for the New RDA II, the Program extension to 10 years, and the annual estimated amount of imported replenishment water that will be purchased and replenished. The water rate used is, again, the worst-case scenario, that all water is purchased at MWD's projected water rates for Tier 1 water, including the Responsible Agencies' current surcharge on each acre-foot purchased.

Year	New RDA II	Estimated MWD Water Purchase
FY 2016-17	$40/AF	9,146 AF
FY 2017-18	$70/AF	15,411 AF
FY 2018-19	$105/AF	22,365 AF
FY 2019-20	$140/AF	28,449 AF
FY 2020-21	$175/AF	33,929 AF
FY 2021-22	$175/AF	32,219 AF
FY 2022-23	$175/AF	30,988 AF
FY 2023-24	$175/AF	29,847 AF
FY 2024-25	$175/AF	28,713 AF
FY 2025-26	$175/AF	27,593 AF

Attached is Figure 6, showing the projected Key Well elevation for the next 10 years under this New RDA II Program. Figure 6 assumes the OSY is set at 150,000 AF each year and total Basin production is 190,000 AF each year. Both of these assumptions are consistent with a continued 10-year severe drought. As shown on Figure 6, the Key Well elevation is sustained at elevation 180 feet during the worst-case scenario.

The New RDA II Program is scheduled for Watermaster adoption at its May 2017 meeting. The first FY 2016-17 RDA II of $40/AF will be levied on all FY 2016-17 production. The 5-year New RDA II Program (rate ramp up from $40/AF to $175/AF) is intended to be adopted by the Watermaster at its May 2017 meeting. Each subsequent year, it is intended the Watermaster will evaluate the established 5-year rate ramp up, evaluate current Basin conditions, and establish the New RDA II for the next FY in May of that year. The New RDA II Program is intended to reach a rate of $175/AF within no more than 5 years.

Part 2 – Operating Safe Yield (OSY)

Watermaster's annual setting of the OSY is a key component of the Drought Management Plan, and must be coordinated closely with the New RDA II Program. As a result of the current 5-year severe drought, the Engineer has recommended the Watermaster "not set the OSY any higher than 150,000 AF until the Key Well is comfortably within the middle range of the Basin operating criteria for multiple consecutive years". Recovery of the Basin water supplies and Basin storage is essential. In addition, the basic criteria of the Judgment, the Physical Solution, and Basin management is to manage Basin water levels and storage with Replacement Water, using the OSY. This Drought Management Plan continues to place a significant burden on the Basin Producers who exceed their annual water rights, to replenish the Basin, and maintain the Key Well elevation above elevation 200 feet. This Basin management strategy must be reasonably maintained, while implementing the New RDA II Program. To accomplish this, the OSY will be evaluated each year in conjunction with evaluation of the New RDA II Program, with the OSY being set based upon the Judgment criteria, and the need to reasonably maintain the long-term average

annual Replacement Water obligation at between 40,000 and 45, 000 AFY. Under this strategy, there is equity between the Producers that produce within their annual water rights allocation, and those Producers whose production exceeds their annual water rights allocation. Some care will need to be taken to ensure the New RDA II Program targets the lack of local rainfall and runoff that replenishes the Basin.

Watermaster's coordinated use of OSY, along with the New RDA II Program to supplement the lack of local stormwater runoff and replenishment, will significantly improve Basin management and the reliability of Basin water supplies. However, even with these valuable Basin management tools, the Watermaster Drought Management Plan is heavily dependent upon the "availability" of imported water (State Water Project and possibly Colorado River) to be successful. Part 3 of the Plan, below, is the final, long-term solution to effectively "drought-proof" the San Gabriel Valley.

Part 3 – The Carson Project

The Watermaster Drought Management Plan must have a reliable source of supplemental imported water to be 100 percent effective. Since the San Gabriel Basin Judgment was entered in 1972, the Physical Solution and Basin management plan has successfully managed water supplies to ensure the Key Well elevation and Basin storage generally stayed above 200 feet. Imported water supplies were reasonably reliable before the severe drought from FY 2011-12 through FY 2015-16. However, the reliability of imported water supplies in the future will be impacted by many negative forces, and reliability is expected to be a concern.

A new, highly reliable, imported water supply is being planned for southern California, and the San Gabriel Basin area. It is the MWD Carson Project that will recover up to 165,000 AF of secondary treated wastewater from the County Sanitation Districts of Los Angeles County's (LACSD) Carson treatment facility (referred to as the Joint Water Pollution Control Plant). This wastewater, currently discharged to the ocean, will be recovered and receive full advanced treatment (FAT), completely suitable for groundwater replenishment. The MWD Carson project has identified the San Gabriel

Basin as a primary customer for this FAT water. The Carson Project is currently proceeding through feasibility analysis and approval, and implementation of a 1 MGD Demonstration Project. The MWD Carson Project may be operational for the San Gabriel Basin within 6 to 8 years.

The Watermaster, the Responsible Agencies, the Producers and other stakeholders are coordinating the commitments necessary to MWD for support of the Carson Project. This commitment will be for between 40,000 AFY and 75,000 AFY of FAT water for Basin replenishment. The MWD Carson Project water is not expected to be subject to drought restrictions, or other restrictions to reliable water supply.

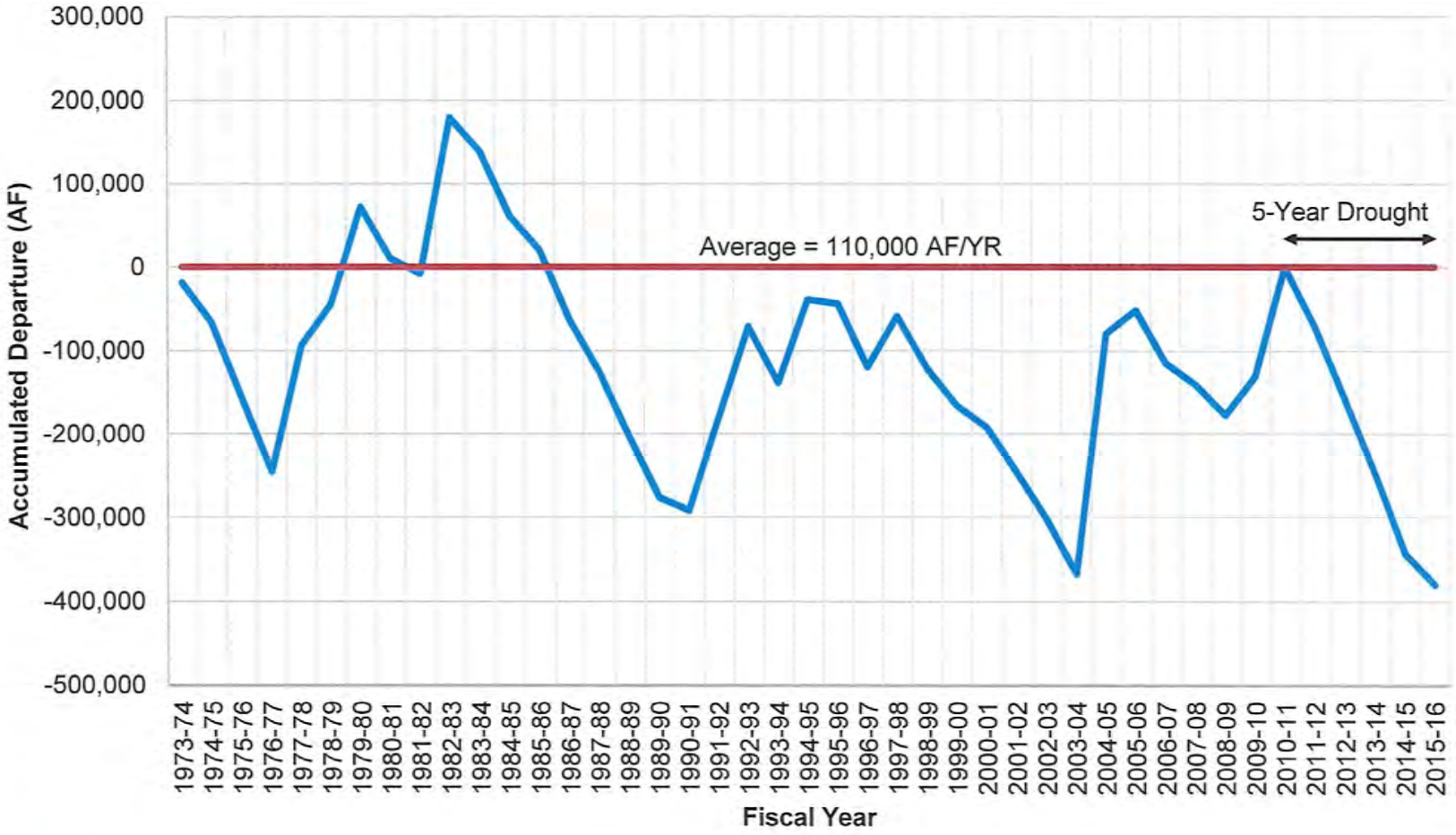
The Basin management tools described in Part 2, the OSY and New RDA II, will be utilized as described in Part 2 to provide the funding necessary for San Gabriel Basin participation in the Carson Project. MWD's Carson Project FAT water will effectively replace imported replenishment water from the State Water Project, thus freeing State Water Project water for MWD use in other portions of MWD's service area.

The commitment and use of MWD Carson Project water for Basin imported water replenishment will require some local coordination, that is not expected to be significant. Some of the local coordination issues are listed below:

1. Coordination of Responsible Agencies' Replacement Water Obligations and Sources of Supply - Two Responsible Agencies are MWD member agencies. One Responsible Agency holds its own State Water Project contract and Replacement Water supply. Coordination and cooperation of the Responsible Agencies is not expected to be a concern.
2. Regulatory Compliance – The significant use of FAT water for Basin replenishment will require compliance with all recycled water regulations. FAT water is currently providing significant groundwater replenishment in Orange County, California and regulatory compliance is not expected to be an issue.
3. Management of In-Basin Replenishment for Producers Well Production – There are areas within the Basin that currently receive imported water replenishment

that may not directly receive replenishment from the MWD Carson Project. Generally, these areas do not require annual imported water replenishment, the existing imported water service connections will remain in place, and the water purveyor may relocate wells into the central part of the Basin, as part of the Carson Project. These issues are expected to be resolved by the Watermaster and Basin Producers.

4. Change in Annual Delivery Schedule for Imported Water to Replenishment Facilities – The MWD Carson Project will deliver replenishment water to the Basin spreading grounds on essentially a 24/7 basis, year around. This is a significant change for the LACDPW, which manages the replenishment facilities. The Watermaster will coordinate with LACDPW to address the modified replenishment management requirements for LACDPW.



STETSON ENGINEERS INC.

Covina San Rafael Mesa, Arizona

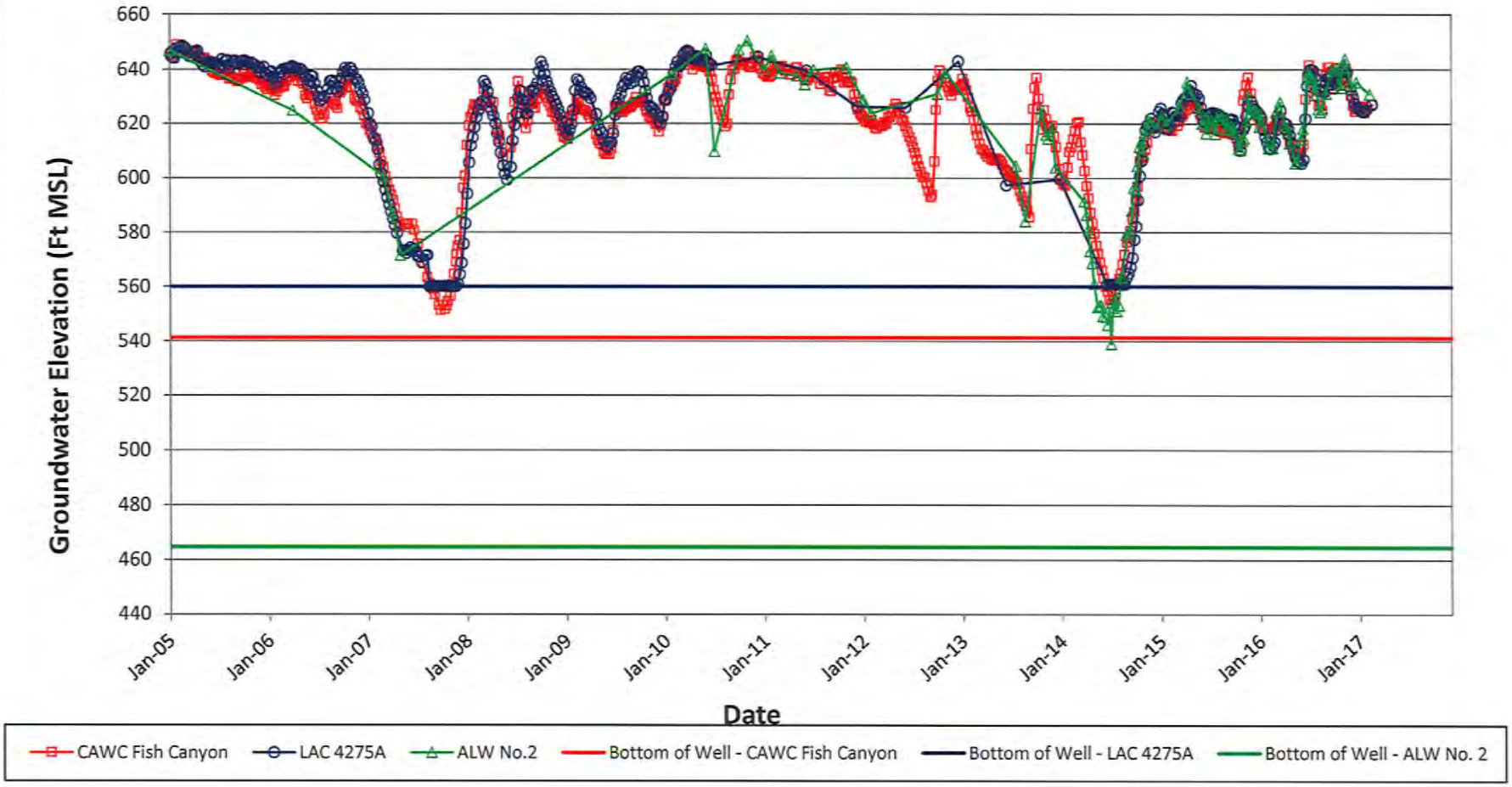
WATER RESOURCE ENGINEERS

MAIN SAN GABRIEL BASIN WATERMASTER

STORMWATER REPLENISHMENT
ACCUMULATED DEPARTURE FROM AVERAGE

FIGURE 1

Z:\Jobs\1205\1205-99 - RDA Assessment\Alt Assessments and Scenarios to Deliver Suppl Water\Accum. Departure



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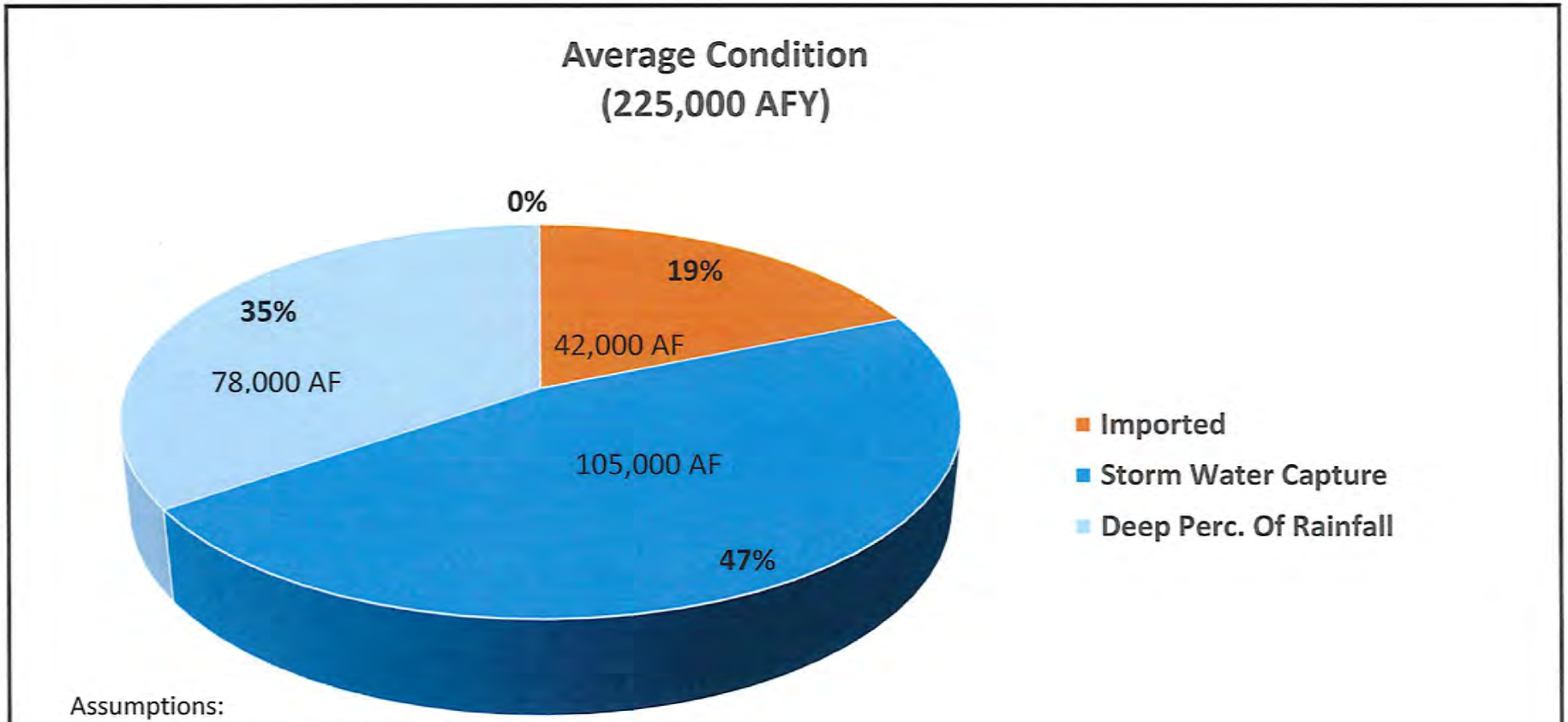
WATER RESOURCE ENGINEERS

HISTORICAL GROUNDWATER LEVELS SAN GABRIEL CANYON BASIN WELLS

FIGURE 2

Z:\Jobs\1205\1205-99 - RDA Assessment\RDA white paper\Historical GW Levels in Canyon Basin



Assumptions:
- No change in groundwater levels
- Based on historical data
- Rainfall of about 20 inches

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WATER RESOURCE ENGINEERS

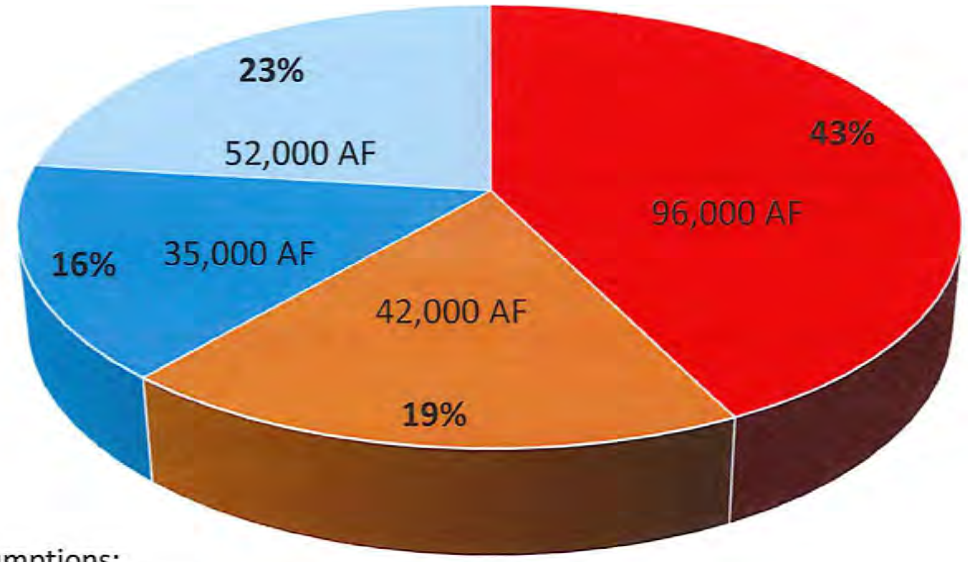
MAIN SAN GABRIEL BASIN WATERMASTER

GROUNDWATER PRODUCTION COMPARED TO REPLENISHMENT
AVERAGE CONDITION

FIGURE 3

Z:\Jobs\1205\1205-99 - RDA Assessment\RDA white paper\Pie Chart average year

Five-Year Drought Condition
(225,000 AFY)



Assumptions:
- Key Well levels reduced about 12 feet per year
- Rainfall of about 9 inches

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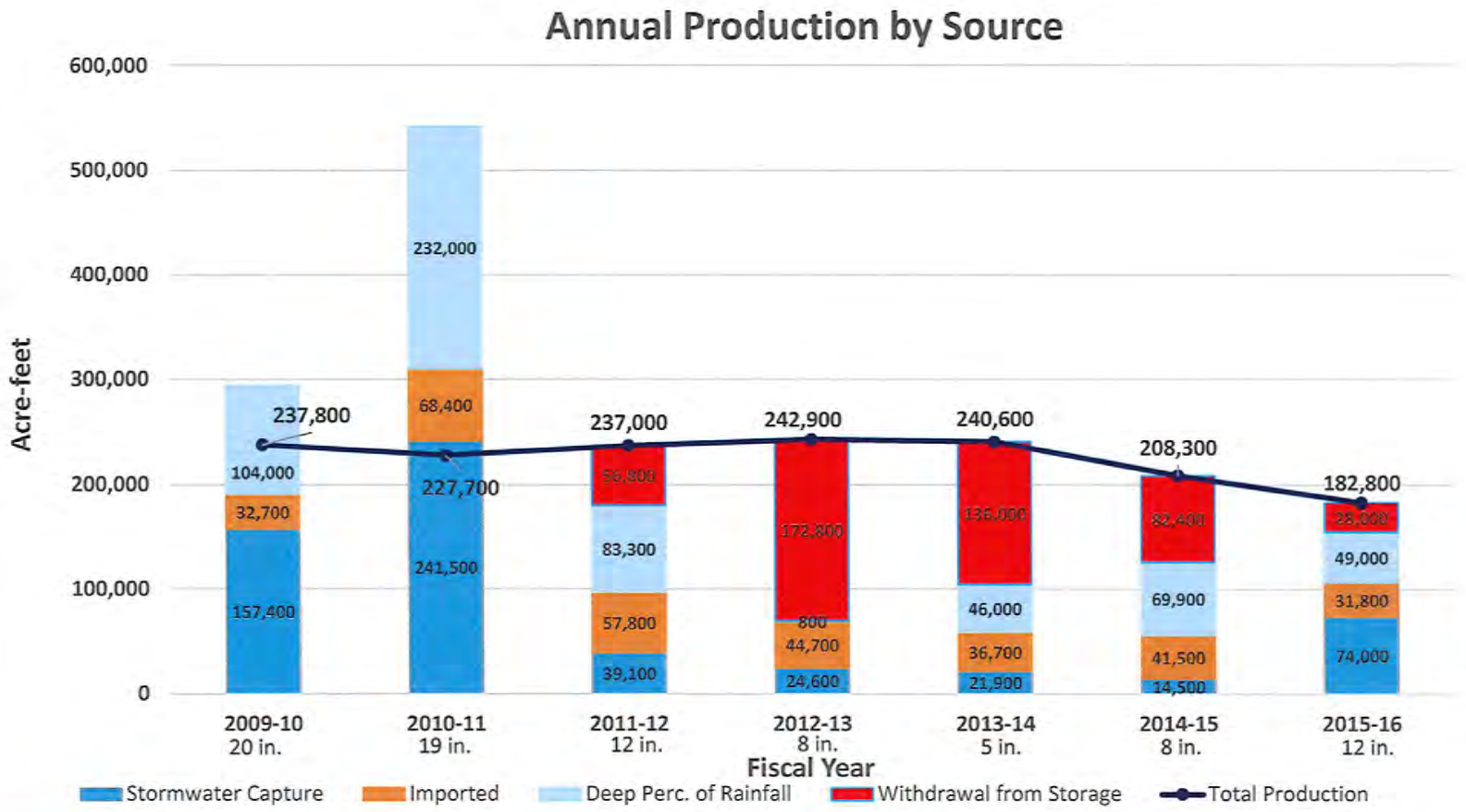
MAIN SAN GABRIEL BASIN WATERMASTER

GROUNDWATER PRODUCTION COMPARED TO REPLENISHMENT FIVE-YEAR DROUGHT CONDITION

FIGURE 4

Z:\Jobs\1205\1205-99 - RDA Assessment\RDA white paper\Pie Chart over 5 years of drought



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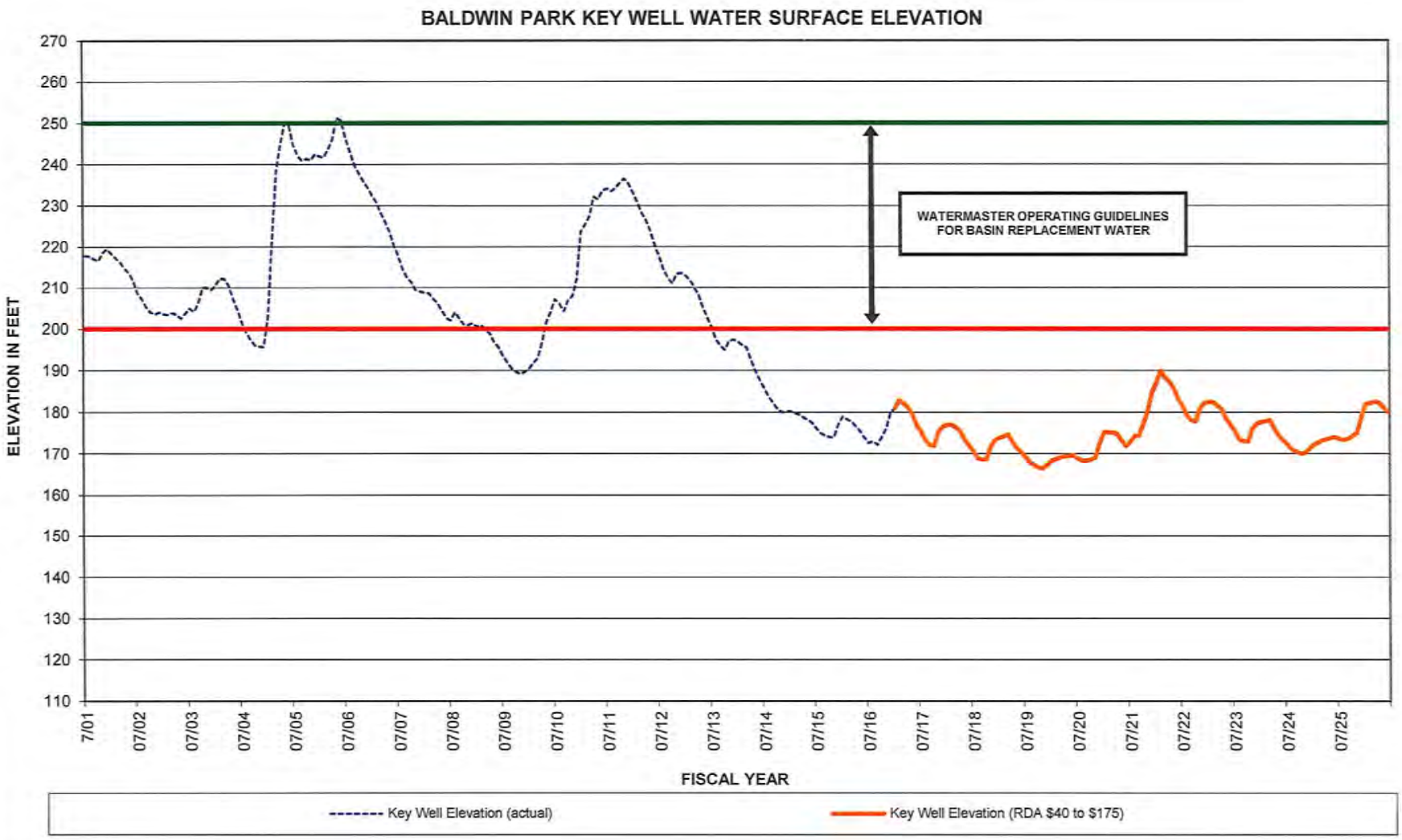
MAIN SAN GABRIEL BASIN WATERMASTER

GROUNDWATER PRODUCTION COMPARED TO REPLENISHMENT FIVE-YEAR DROUGHT CONDITION

FIGURE 5

Z:\Jobs\1205\1205-99 - RDA Assessment\RDA white paper\Figures\Annual Production by Source



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MAIN SAN GABRIEL BASIN WATERMASTER

IMPACT TO BALDWIN PARK KEY WELL ELEVATION ASSUMES OPERATING SAFE YIELD OF 150,000 AFY AND PRODUCTION OF 190,000 AFY

FIGURE 6

Z:\Jobs\1205\1205-99 - RDA Assessment\RDA white paper\Figures\Figure 6

APPENDIX A

MAIN SAN GABRIEL BASIN JUDGMENT

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SUPERIOR COURT OF THE STATE OF CALIFORNIA

FOR THE COUNTY OF LOS ANGELES

Upper San Gabriel Valley Municipal Water District, Plaintiff, vs. City of Alhambra, et al, Defendants	Case No.: 924128 **AMENDED JUDGMENT** (And Exhibits Thereto)

HONORABLE MAUREEN DUFFY-LEWIS

Assigned Judge Presiding

DEPARTMENT 38

June 21, 2012

(This version includes prior Amendments and updated Exhibits through June 21, 2012.)

AMENDED JUDGMENT
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And
Amended Judgment Sections
Identified With Prior Judgment Section Numbers

EXHIBITS

"A" – Map entitled, "San Gabriel River Watershed Tributary to Whittier Narrows"

"B" – Boundaries of Relevant Watershed

"C" – Table Showing Base Annual Diversion Rights of Certain Diverters

"D" – Table Showing Prescriptive Pumping Rights and Pumper's Share of Each Pumper

"E" – Table Showing Production Rights of Each Integrated Producer

"F" – Table Showing Special Category Rights

"G" – Table Showing Non-consumptive Users

"H" – Watermaster Operating Criteria

"J" – Puente Narrows Agreement

"K" – Overlying Rights

(Exhibit "K" Includes - Nature of Overlying Right, Description of Overlying Lands To Which Overlying Rights Are Appurtenant, Producers Entitled To Exercise Overlying Rights and Their Respective Consumptive Use Portions, and Map of Overlying Lands.)

"L" – List of Producers and Other Parties and Their Designees (June 2012) (New)

"M" – Watermaster Members, Officers, and Staff, Including Calendar Year 2012 (New)

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SUPERIOR COURT OF CALIFORNIA, COUNTY OF LOS ANGELES

Upper San Gabriel Valley Municipal Water District, Plaintiff, vs. City of Alhambra, et al, Defendant	Case No.: 924128 **AMENDED JUDGMENT** Hearing: June 21, 2012 Department 38, 9:30 A.M.

The Petition of the MAIN SAN GABRIEL BASIN WATERMASTER for this AMENDED JUDGMENT herein, came on regularly for hearing in this Court before the **HONORABLE MAUREEN DUFFY-LEWIS**, ASSIGNED JUDGE PRESIDING, on June 21, 2012; Frederic A. Fudacz appeared as attorney for Watermaster - Petitioner; and good cause appearing, the following **ORDER** and **AMENDED JUDGMENT** are, hereby, made:

I. INTRODUCTION

1. Pleadings, Parties, and Jurisdiction. The complaint herein was filed on January 2, 1968, seeking an adjudication of water rights. By amendment of said complaint and dismissals of certain parties, said adjudication was limited to the Main San Gabriel Basin and its Relevant Watershed. Substantially all defendants and the cross-defendant have appeared herein, certain defaults have been entered, and other defendants dismissed. By the pleadings herein and by

Order of this Court, the issues have been made those of a full inter se adjudication of water rights as between each and all of the parties. This Court has jurisdiction of the subject matter of this action and of the parties herein.

2. Stipulation for Entry of Judgment. A substantial majority of the parties, by number and by quantity of rights herein Adjudicated, Stipulated for entry of a Judgment in substantially the form of the original Judgment herein.

3. Lis Pendens. (New) A Lis Pendens was recorded August 20, 1970, as Document 2650, in Official Records of Los Angeles County, California, in Book M 3554, Page 866.

4. Findings and Conclusions. (Prior Judgment Section 3) Trial was had before the Court, sitting without a jury, John Shea, Judge Presiding, commencing on October 30, 1972, and Findings of Fact and Conclusions of Law have been entered herein.

5. Judgment. (New) Judgment (and Exhibits Thereto), Findings of Fact and Conclusions of Law (and Exhibits Thereto), Order Appointing Watermaster, and Initial Watermaster Order were signed and filed December 29, 1972, and Judgment was entered January 4, 1973, in Book 6791, Page 197.

6. Intervention After Judgment. (New) Certain defendants have, pursuant to the Judgment herein and the Court's continuing jurisdiction, intervened and appeared herein after entry of Judgment.

7. Amendments of Judgment. (New) The original Judgment herein was previously amended on March 29 1979, by: (1) adding definition (r [1]) thereto, (2) amending definition (bb) therein, (3) adding Exhibit "K" thereto, (4) adding Sections 14.5 and 16.5 thereto, and (5) amending Sections 37(b), 37(c), 37(d), and Section 47 therein; it was again amended on December 21, 1979, by amending Section 38(c) thereof; again amended on February 21, 1980, by amending Section 24 thereof; again amended on September 12, 1980, by amending Sections 35(a), 37(a), and 38(a); again amended on December 22, 1987, by adding Section 37(e) thereto; amended again on July 22, 1988 by amending Section 37(e) thereof and Ordering an Amended Judgment herein; again amended on January 29, 1991, by amending Sections 10(j), 40, and by adding Sections 40(a), 40(b), 40(c), 40(d), 40(e) and 40(f); again amended on April 2, 1991, by

amending Sections 10(ff), 10(jj), and 34(h); again amended on February 24, 1992, by amending Section 40(b); again amending Appendices in 2000; and again on June 21, 2012 by amending Sections 10(ff), 26, 29(d), 34(b), 34(c), 34(g), 34(h), 34(j), 36, 42, 44, 45, 46(a), 47, 50, 54, Exhibit H Sections 2, 3(d), 4; adding Sections 34(p), 34(q), 34(r); and deleting Section 53 entirely.

8. Transfers. (New) Since the entry of Judgment herein there have been numerous transfers of Adjudicated water rights. To the date hereof, said transfers are reflected in Exhibits "C", "D", and "E".

9. Producers and Their Designees. (New) The current status of Producers and their Designees is shown on Exhibit "L".

10. Definitions. (Prior Judgment Section 4) As used in this Judgment, the following terms shall have the meanings herein set forth:

(a) Base Annual Diversion Right – The average annual quantity of water which a Diverter is herein found to have the right to Divert for Direct Use.

(b) Direct Use – Beneficial use of water other than for spreading or Ground Water recharge.

(c) Divert or Diverting – To take waters of any surface stream within the Relevant Watershed.

(d) Diverter – Any party who Diverts.

(e) Elevation – Feet above mean sea level.

(f) Fiscal Year – A period July 1 through June 30, following.

g) Ground Water – Water beneath the surface of the ground and within the zone of saturation.

(h) Ground Water Basin – An interconnected permeable geologic formation capable of storing a substantial Ground Water supply.

(i) Integrated Producer – Any party that is both a Pumper and a Diverter, and has elected to have its rights adjudicated under the optional formula provided in Section 18 of this Judgment.

(j) In-Lieu Water Cost – The differential between a particular Producer's cost of Watermaster directed produced, treated, blended, substituted, or Supplemental Water delivered or substituted to, for, or taken by, such Producer in-lieu of his cost of otherwise normally Producing a like amount of Ground Water from the Basin. (Amended 1/29/91)

(k) Key Well – Baldwin Park Key Well, being elsewhere designated as State Well No. 1S/10W-7R2, or Los Angeles County Flood Control District Well No. 3030-F. Said well has a ground surface Elevation of 386.7.

(l) Long Beach Case – Los Angeles Superior Court Civil Action No. 722647, entitled, "Long Beach, et al., v. San Gabriel Valley Water Company, et al."

(m) Main San Gabriel Basin or Basin – The Ground Water Basin underlying the area shown as such on Exhibit "A".

(n) Make-Up Obligation – The total cost of meeting the obligation of the Basin to the area at or below Whittier Narrows, pursuant to the Judgment in the Long Beach Case.

(o) Minimal Producer – Any party whose Production in any Fiscal Year does not exceed five (5) acre-feet. (Prior to June 21, 2012)

(p) Natural Safe Yield – The quantity of natural water supply which can be extracted annually from the Basin under conditions of long term average annual supply, net of the requirement to meet downstream rights as determined in the Long Beach Case (exclusive of Pumped export), and under cultural conditions as of a particular year.

(q) Operating Safe Yield – The quantity of water which the Watermaster determines hereunder may be Pumped from the Basin in a particular Fiscal Year, free of the Replacement Water Assessment under the Physical Solution herein.

(r) Overdraft – A condition wherein the total annual Production from the Basin exceeds the Natural Safe Yield thereof.

(s) Overlying Rights – (Prior Judgment Section 4(r)[1]) The right to Produce water from the Basin for use on Overlying Lands, which rights are exercisable only on specifically defined Overlying Lands and which cannot be separately conveyed or

transferred apart therefrom.

(t) Physical Solution – (Prior Judgment Section 4(s)) The Court decreed method of managing the waters of the Basin so as to achieve the maximum utilization of the Basin and its water supply, consistent with the rights herein declared.

(u) Prescriptive Pumping Right – (Prior Judgment Section 4(t)) The highest continuous extractions of water by a Pumper from the Basin for beneficial use in any five (5) consecutive years after commencement of Overdraft and prior to filing of this action, as to which there has been no cessation of use by that Pumper during any subsequent period of five (5) consecutive years, prior to the said filing of this action.

(v) Produce or Producing – (Prior Judgment Section 4(u)) To Pump or Divert Water.

(w) Producer – (Prior Judgment Section 4(v)) A party who Produces water.

(x) Production – (Prior Judgment Section 4(w)) The annual quantity of water Produced, stated in acre feet.

(y) Pump or Pumping – (Prior Judgment Section 4(x)) To extract Ground Water from the Basin by Pumping or any other method.

(z) Pumper – (Prior Judgment Section 4(y)) Any party who Pumps water.

(aa) Pumper's Share – (Prior Judgment Section 4(z)) A Pumper's right to a percentage of the entire Natural Safe Yield, Operating Safe Yield and appurtenant Ground Water storage.

(bb) Relevant Watershed – (Prior Judgment Section 4(aa)) That portion of the San Gabriel River watershed tributary to Whittier Narrows which is shown as such on Exhibit "A", and the exterior boundaries of which are described in Exhibit "B".

(cc) Replacement Water – (Prior Judgment Section 4(bb)) Water purchased by Watermaster to replace: (1) Production in excess of a Pumper's Share of Operating Safe Yield; (2) The consumptive use portion resulting from the exercise of an Overlying Right; and (3) Production in excess of a Diverter's right to Divert for Direct Use.

(dd) Responsible Agency – (Prior Judgment Section 4(cc)) The municipal water

district which is the normal and appropriate source from whom Watermaster shall purchase Supplemental Water for replacement purposes under the Physical Solution, being one of the following:

(1) Upper District – Upper San Gabriel Valley Municipal Water District, a member public agency of the Metropolitan Water District of Southern California (MWD).

(2) San Gabriel District – San Gabriel Valley Municipal Water District, which has a direct contract with the State of California for State Project Water.

(3) Three Valleys District – Three Valleys Municipal Water District, formerly, "Pomona Valley Municipal Water District", a member public agency of MWD.

(ee) Stored Water – (Prior Judgment Section 4(dd)) Supplemental Water stored in the Basin pursuant to a contract with Watermaster as authorized by Section 34(n).

(ff) Supplemental Water – (Prior Judgment Section 4(ee)) Nontributary water imported through a Responsible Agency and reclaimed water or water obtained from other available sources when water is not available in a timely fashion from a Responsible Agency. (Amended 6/21/12)

(gg) Transporting Parties – (Prior Judgment Section 4(ff)) Any party presently transporting water (i.e., during the 12 months immediately preceding the making of the findings herein) from the Relevant Watershed or Basin to an area outside thereof, and any party presently or hereafter having an interest in lands or having a service area outside the Basin or Relevant Watershed contiguous to lands in which it has an interest or a service area within the Basin or Relevant Watershed. Division by a road, highway, or easement shall not interrupt contiguity. Said term shall also include the City of Sierra Madre, or any party supplying water thereto, so long as the corporate limits of said City are included within one of the Responsible Agencies and if said City, in order to supply water to its corporate area from the Basin, becomes a party to this action bound by this Judgment.

(hh) Water Level – (Prior Judgment Section 4(gg)) The measured Elevation of water in the Key Well, corrected for any temporary effects of mounding caused by replenishment or local depressions caused by Pumping.

(ii) Year – (Prior Judgment Section 4(hh)) A calendar year, unless the context clearly indicates a contrary meaning.

(jj) Reclaimed Water – Water which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur. (Amended 4/2/91)

11. Exhibits. (Prior Judgment Section 5) The following exhibits are attached to this Judgment and incorporated herein by this reference:

Exhibit "A" – Map entitled, "San Gabriel River Watershed Tributary to Whittier Narrows", showing the boundaries and relevant geologic and hydrologic features in the portion of the watershed of the San Gabriel River lying upstream from Whittier Narrows.

Exhibit "B" – Boundaries of Relevant Watershed.

Exhibit "C" – Table Showing Base Annual Diversion Rights of Certain Diverters.

Exhibit "D" – Table Showing Prescriptive Pumping Rights and Pumper's Share of Each Pumper.

Exhibit "E" – Table Showing Production Rights of Each Integrated Producer.

Exhibit "F" – Table Showing Special Category Rights.

Exhibit "G" – Table Showing Non-consumptive Users.

Exhibit "H" – Watermaster Operating Criteria.

Exhibit "J" – Puente Narrows Agreement.

Exhibit "K" – Overlying Rights, Nature of Overlying Right, Description of Overlying Lands to which Overlying Rights are Appurtenant, Producers Entitled to Exercise Overlying Rights and their Respective Consumptive Use Portions, and Map of Overlying Lands.

Exhibit "L" – (New) List of Producers And Their Designees, as of June 2012.

Exhibit "M" – (New) Watermaster Members, Officers and Staff, Including

Calendar Year 2012.

II. DECREE

NOW, THEREFORE, IT IS HEREBY DECLARED, ORDERED, ADJUDGED AND DECREED:

A. DECLARATION OF HYDROLOGIC CONDITIONS

12. Basin as Common Source of Supply. (Prior Judgment Section 6) The area shown on Exhibit "A" as Main San Gabriel Basin overlies a Ground Water basin. The Relevant Watershed is the watershed area within which rights are herein adjudicated. The waters of the Basin and Relevant Watershed constitute a common source of natural water supply to the parties herein.

13. Determination of Natural Safe Yield. (Prior Judgment Section 7) The Natural Safe Yield of the Main San Gabriel Basin is found and declared to be one hundred fifty-two thousand seven-hundred (152,700) acre-feet under Calendar Year 1967 cultural conditions.

14. Existence of Overdraft. (Prior Judgment Section 8) In each and every Calendar year commencing with 1953, the Basin has been and is in Overdraft.

B. DECLARATION OF RIGHTS

15. Prescription. (Prior Judgment Section 9) The use of water by each and all parties and their predecessors in interest has an open, notorious, hostile, adverse, under claim of right, and with notice of said overdraft continuously from January 1, 1953 to January 4, 1973. The rights of each party herein declared are prescriptive in nature. The following aggregate consequences of said prescription within the Basin and Relevant Watershed are hereby declared:

(a) Prior Prescription. Diversions within the Relevant Watershed have created rights for direct consumptive use within the Basin, as declared and determined in Sections 16 and 18 hereof, which are of equal priority inter se, but which are prior and paramount to Pumping Rights in the Basin.

(b) Mutual Prescription. The aggregate Prescriptive Pumping Rights of the parties who are Pumpers now exceed, and for many years prior to filing of this action, have exceeded, the Natural Safe Yield of the Basin. By reason of said condition, all

rights of said Pumpers are declared to be mutually prescriptive and of equal priority, inter se.

(c) Common Ownership of Safe Yield and Incidents Thereto. By reason of said Overdraft and mutual Prescription, the entire Natural Safe Yield of the Basin, the Operating Safe Yield thereof and the appurtenant rights to Ground Water storage capacity of the Basin are owned by Pumpers in undivided Pumpers' Shares as hereinafter individually declared, subject to the control of Watermaster, pursuant to the Physical Solution herein decreed. Nothing herein shall be deemed in derogation of the rights to spread water pursuant to rights set forth in Exhibit "G".

16. Surface Rights. (Prior Judgment Section 10) Certain of the aforesaid prior and paramount prescriptive water rights of Diverters to Divert for Direct Use stream flow within the Relevant Watershed are hereby declared and found in terms of Base Annual Diversion Right as set forth in Exhibit "C". Each Diverter shown on Exhibit "C" shall be entitled to Divert for Direct Use up to two hundred percent (200%) of said Base Annual Diversion Right in any one (1) Fiscal Year; provided that the aggregate quantities of water Diverted in any consecutive ten (10) Fiscal Year period shall not exceed ten (10) times such Diverter's Base Annual Diversion Right.

17. Ground Water Rights. (Prior Judgment Section 11) The Prescriptive Pumping Right of each Pumper, who is not an Integrated Producer, and his Pumper's Share are declared as set forth in Exhibit "D".

18. Optional Integrated Production Rights. (Prior Judgment Section 12) Those parties listed on Exhibit "E" have elected to be treated as Integrated Producers. Integrated Production Rights have two (2) historical components:

(1) a fixed component based upon historic Diversions for Direct Use; and

(2) a mutually prescriptive Pumper's Share component based upon Pumping during the period 1953 through 1967.

Assessment and other Watermaster regulation of the rights of such parties shall relate to and be based upon each such component. So far as future exercise of such rights is concerned,

however, the gross quantity of the aggregate right in any Fiscal Year may be exercised, in the sole discretion of such party, by either Diversion or Pumping or any combination or apportionment thereof; provided, that for Assessment purposes the first water Produced in any Fiscal Year (other than "Carry-over", under Section 49 hereof) shall be deemed an exercise of the Diversion Component, and any Production over said quantity shall be deemed Pumped water, regardless of the actual method of Production.

19. Special Category Rights. (Prior Judgment Section 13) The parties listed on Exhibit "F" have water rights in the Relevant Watershed which are not ordinary Production rights. The nature of each such right is as described in Exhibit "F".

20. Non-consumptive Practices. (Prior Judgment Section 14) Certain Producers have engaged in Water Diversion and spreading practices which have caused such Diversions to have a non-consumptive or beneficial impact upon the aggregate water supply available in the Basin. Said parties, and a statement of the nature of their rights, uses and practices, are set forth in Exhibit "G". The Physical Solution decreed herein, and particularly its provisions for Assessments, shall not apply to such non-consumptive uses. Watermaster may require reports on the operations of said parties.

21. Overlying Rights. (Prior Judgment Section 14.5) Producers listed in Exhibit "K" hereto were not parties herein at the time of the original entry of Judgment herein. They have exercised in good faith Overlying Rights to Produce water from the Basin during the periods subsequent to the entry of Judgment herein and have by self-help initiated or maintained appurtenant Overlying Rights. Such rights are exercisable without quantitative limit only on specifically described Overlying Land and cannot be separately conveyed or transferred apart therefrom. As to such rights and their exercise, the owners thereof shall become parties to this action and be subject to Watermaster Replacement Water assessments under Section 45(b) hereof, sufficient to purchase Replenishment Water to offset the net consumptive use of such Production and practices. In addition, the gross amount of such Production for such overlying use shall be subject to Watermaster Administration Assessments under Section 45(a) hereof and the consumptive use portion of such Production for overlying use shall be subject to

Watermaster's In-Lieu Water Cost Assessments under Section 45(d) hereof. The Producers presently entitled to exercise Overlying Rights, a description of the Overlying Land to which Overlying Rights are appurtenant, the nature of use and the consumptive use portion thereof are set forth in Exhibit "K" hereto. Watermaster may require reports and make inspections of the operations of said parties for purposes of verifying the uses set forth in said Exhibit "K", and, in the event of a material change, to redetermine the net amount of consumptive use by such parties as changed, in the exercise of such Overlying Rights.

Annually, during the first two (2) weeks of June in each calendar year, such Overlying Rights Producers shall submit to Watermaster a verified statement as to the nature of the then current uses of said Overlying Rights on said Overlying Lands for the next ensuing Fiscal Year, whereupon Watermaster shall either affirm the prior determination or redetermine the net amount of the consumptive use portion of the exercise of such Overlying Right by said Overlying Rights Producer.

C. INJUNCTION

22. Injunction Against Unauthorized Production. (Prior Judgment Section 15) Effective July 1, 1973, each and every party, its officers, agents, employees, successors and assigns, to whom rights to waters of the Basin or Relevant Watershed have been declared and decreed herein is **ENJOINED AND RESTRAINED** from Producing water for Direct Use from the Basin or the Relevant Watershed except pursuant to rights and Pumpers' Shares herein decreed or which may hereafter be acquired by transfer pursuant to Section 55, or under the provisions of the Physical Solution in this Judgment and the Court's continuing jurisdiction, provided that no party is enjoined from Producing up to five (5) acre feet per Fiscal Year.

23. Injunction re Non-consumptive Uses. (Prior Judgment Section 16) Each party listed in Exhibit "G", its officers, agents, employees, successors and assigns, is **ENJOINED AND RESTRAINED** from materially changing said non-consumptive method of use.

24. Injunction re Change in Overlying Use Without Notice Thereof to Watermaster. (Prior Judgment Section 16.5) Each party listed in Exhibit "K", its officers, agents, employees, successors and assigns, is **ENJOINED AND RESTRAINED** from materially changing said

overlying uses at any time without first notifying Watermaster of the intended change of use, in which event Watermaster shall promptly redetermine the consumptive use portion thereof to be effective after such change.

25. Injunction Against Unauthorized Recharge. (Prior Judgment Section 17) Each party, its officers, agents, employees, successors and assigns, is **ENJOINED AND RESTRAINED** from spreading, injecting or otherwise recharging water in the Basin except pursuant to: (a) an adjudicated non-consumptive use, or (b) consent and approval of or Cyclic Storage Agreement with Watermaster, or (c) subsequent order of this Court.

26. Injunction Against Transportation from Basin or Relevant Watershed. (Prior Judgment Section 18) Except upon further order of Court and except as provided in section 34(r) herein, all parties, other than Transporting Parties and MWD in its exercise of its Special Category Rights, to the extent authorized therein, are **ENJOINED AND RESTRAINED** from transporting water hereafter Produced from the Relevant Watershed or Basin outside the areas thereof. For purposes of this Section, water supplied through a city water system which lies chiefly within the Basin shall be deemed entirely used within the Basin. Transporting Parties are entitled to continue to transport water to the extent that any Production of water by any such party does not violate the injunctive revisions contained in Section 22 hereof; provided that said water shall be used within the present service areas or corporate or other boundaries and additions thereto so long as such additions are contiguous to the then existing service area or corporate or other boundaries; except that a maximum of ten percent (10%) of use in any Fiscal Year may be outside said then existing service areas or corporate or other boundaries. Notwithstanding the foregoing and without in any way changing or limiting the Transporting Parties' entitlement to transport water as set forth herein, any party may enter into an agreement with Watermaster to store Supplemental Water and export said stored Supplemental Water under specific terms and conditions approved by Watermaster. Such storage and export shall be subject to (1) a determination by Watermaster that no material injury to the Basin or parties will result therefrom; (2) execution of an agreement with Watermaster setting forth the terms and conditions upon which water may be stored in or exported from the Basin; and (3) compliance

with Watermaster Rules and Regulations respecting Basin storage and export. (Amended 6/21/12)

D. CONTINUING JURISDICTION

27. Jurisdiction Reserved. (Prior Judgment Section 19) Full jurisdiction, power and authority are retained by and reserved to the Court for purposes of enabling the Court upon application of any party or of the Watermaster, by motion and upon at least thirty (30) days notice thereof, and after hearing thereon, to make such further or supplemental orders or directions as may be necessary or appropriate for interim operation before the Physical Solution is fully operative, or for interpretation, enforcement or carrying out of this Judgment, and to modify, amend or amplify any of the provisions of this Judgment or to add to the provisions thereof consistent with the rights herein decreed. Provided, that nothing in this paragraph shall authorize:

(1) modification or amendment of the quantities specified in the declared rights of any party;

(2) modification or amendment of the manner of exercise of the Base Annual Diversion Right or Integrated Production Right of any party; or

(3) the imposition of an injunction prohibiting transportation outside the Relevant Watershed or Basin as against any Transporting Party transporting in accordance with the provisions of this Judgment or against MWD as to its Special Category Rights.

E. WATERMASTER

28. Watermaster to Administer Judgment. (Prior Judgment Section 20) A Watermaster comprised of nine (9) persons, to be nominated as hereinafter provided and appointed by the Court, shall administer and enforce the provisions of this Judgment and any subsequent instructions or orders of the Court thereunder.

29. Qualification, Nomination and Appointment. (Prior Judgment Section 21) The nine (9) member Watermaster shall be composed of six (6) Producer representatives and three (3) public representatives qualified, nominated and appointed as follows:

(a) Qualification. Any adult citizen of the State of California shall be eligible to serve as Watermaster; provided, however, that no officer, director, employee or agent of Upper District or San Gabriel District shall be qualified as a Producer member of Watermaster.

(b) Nomination of Producer Representatives. A meeting of all parties shall be held at the regular meeting of Watermaster in November of each year, at the offices of Watermaster. Nomination of the six (6) Producer representatives shall be by cumulative voting, in person or by proxy, with each Producer entitled to one (1) vote for each one hundred (100) acre-feet, or portion thereof, of Base Annual Diversion Right or Prescriptive Pumping Right or Integrated Production Right.

(c) Nomination of Public Representatives. On or before the regular meeting of Watermaster in November of each year, the three (3) public representatives shall be nominated by the boards of directors of Upper District (which shall select two [2]) and San Gabriel District (which shall select one [1]). Said nominees shall be members of the board of directors of said public districts.

(d) Appointment. All Watermaster nominations shall be promptly certified to the Court, which will in ordinary course confirm the same by an appropriate order appointing said Watermaster; provided, however, that the Court at all times reserves the right and power to refuse to appoint, or to remove, any member of Watermaster. Notwithstanding section 27 herein, Watermaster nominations may be promptly certified by the Court upon 10 calendar days' notice thereof, plus the time prescribed by statute for service by mail, e-mail or other electronic means. (Amended 6/21/12)

30. Term and Vacancies. (Prior Judgment Section 22) Each member of Watermaster shall serve for a one (1) year term commencing on January 1, following his appointment, or until his successor is appointed. In the event of a vacancy on Watermaster, a successor shall be nominated at a special meeting to be called by Watermaster within ninety (90) days (in the case of a Producer representative) or by action of the appropriate district board of directors (in the case of a public representative).

31. Quorum. (Prior Judgment Section 23) Five (5) members of the Watermaster shall constitute a quorum for the transaction of affairs of the Watermaster. Action by the affirmative vote of five (5) members shall constitute action by Watermaster, except that the affirmative vote of six (6) members shall be required:

(a) to approve the purchase, spreading or injection of water for Ground Water recharge, or

(b) to enter in any Agreement pursuant to Section 34 (n) hereof.

32. Compensation. (Prior Judgment Section 24) Each Watermaster member shall receive compensation of One Hundred Dollars ($100.00) per day for each day's attendance at meetings of Watermaster or for each day's service rendered as a Watermaster member at the request of Watermaster, together with any expenses incurred in the performance of his duties required or authorized by Watermaster. No member of the Watermaster shall be employed by or compensated for professional services rendered by him to Watermaster, other than the compensation herein provided, and any authorized travel or related expense.

33. Organization. (Prior Judgment Section 25) At its first meeting in each year, Watermaster shall elect a chairman and a vice chairman from its membership. It shall also select a secretary, a treasurer and such assistant secretaries and assistant treasurers as may be appropriate, any of whom may, but need not be, members of Watermaster.

(a) Minutes. Minutes of all Watermaster meetings shall be kept, which shall reflect all actions taken by Watermaster. Draft copies thereof shall be furnished to any party who files a request therefor in writing with Watermaster. Said draft copies of minutes shall constitute notice of any Watermaster action therein reported; failure to request copies thereof shall constitute waiver of notice.

(b) Regular Meetings. Watermaster shall hold regular meetings at places and times to be specified in Watermaster's rules and regulations to be adopted by Watermaster. Notice of the scheduled or regular meetings of Watermaster and of any changes in the time or place thereof shall be mailed to all parties who shall have filed a request therefor in writing with Watermaster.

(c) Special Meetings. Special meetings of Watermaster may be called at any time by the chairman or vice chairman or by any three (3) members of Watermaster by written notice delivered personally or mailed to each member of Watermaster and to each party requesting notice, at least twenty-four (24) hours before the time of each such meeting in the case of personal delivery, and forty-eight (48) hours prior to such meeting in the case of mail. The calling notice shall specify the time and place of the special meeting and the business to be transacted at such meeting. No other business shall be considered at such meeting.

(d) Adjournments. Any meeting of Watermaster may be adjourned to a time and place specified in the order of adjournment. Less than a quorum may so adjourn from time to time. A copy of the order or notice of adjournment shall be conspicuously posted on or near the door of the place where the meeting was held within twenty-four (24) hours after adoption of the order of adjournment.

34. Powers and Duties. (Prior Judgment Section 26) Subject to the continuing supervision and control of the Court, Watermaster shall have and may exercise the following express powers, and shall perform the following duties, together with any specific powers, authority and duties granted or imposed elsewhere in this Judgment or hereafter ordered or authorized by the Court in the exercise of its continuing jurisdiction.

(a) Rules and Regulations. To make and adopt any and all appropriate rules and regulations for conduct of Watermaster affairs. A copy of said rules and regulations and any amendments thereof shall be mailed to all parties.

(b) Acquisition of Facilities. To purchase, own, lease, acquire and hold, as trustee for the benefit of the Parties, all necessary personal property and equipment, and such limited real property such as office quarters, monitoring wells, the key well, and other facilities necessary to fulfill Watermaster's basin management responsibilities under this Judgment. (Amended 6/21/12)

(c) Employment of Experts and Agents. To employ such administrative personnel, engineering, geologic, accounting, legal, public policy education or other

specialized services (but not including registered lobbyists) and consulting assistants as may be deemed appropriate in the carrying out of its powers and to require appropriate bonds from all officers and employees handling Watermaster funds. (Amended 6/21/12)

(d) Measuring Devices, etc. To cause parties, pursuant to uniform rules, to install and maintain in good operating condition, at the cost of each party, such necessary measuring devices or meters as may be appropriate; and to inspect and test any such measuring device as may be necessary.

(e) Assessments. To levy and collect all Assessments specified in the Physical Solution.

(f) Investment of Funds. To hold and invest any and all funds which Watermaster may possess in investments authorized from time to time for public agencies in the State of California.

(g) Borrowing. To borrow in anticipation of receipt of Assessment proceeds an amount not to exceed the annual amount of Assessments levied but uncollected, or in accordance with the provisions of Sections 45 and 46 hereto. Upon approval by the Watermaster at its regularly scheduled public meeting, when necessary to secure Supplemental Water, Watermaster may borrow funds in excess of the annual amount of Assessments levied but uncollected. Prior to borrowing funds, Watermaster shall meet and confer with Responsible Agencies and seek their input. Watermaster shall adopt Rules and Regulations specifying: (i) how debt repayment will be allocated among the Parties; (ii) that Watermaster obtain prior approval of the Court before incurring debt that exceeds the total of one year's levied Assessments; and (iii) such other matters as Watermaster deems appropriate for Rules and Regulations respecting the purchase of Supplemental Water using debt. (Amended 6/21/12)

(h) Purchase of and Recharge with Supplemental Water. To purchase Supplemental Water and to introduce the same into the Basin, including Reclaimed Water, for replenishment, Replacement Water, and cyclic storage purposes in the Basin subject to the affirmative vote of six (6) members of Watermaster, provided, the

California Department of Public Health and the Los Angeles Regional Water Quality Control Board have approved such Reclaimed Water for said uses, Watermaster has given prior notice to all parties of its intention to use said Reclaimed Water for such purposes, held noticed hearings thereon, and approves such uses. Reclaimed Water used by Watermaster as Supplemental Water for said purposes shall not be a violation of Sections 3(b) or 3(c) of Exhibit "H" hereto. (Amended 4/2/91 and 6/21/12)

(i) Contracts. To enter into contracts for the performance of any administrative powers herein granted, subject to approval of the Court.

(j) Cooperation with Existing Agencies. To act jointly or cooperate with agencies of the United States and the State of California or any political subdivision, municipality or district to the end that the purposes of the Physical Solution may be fully and economically carried out. (Amended 6/21/12)

(k) Assumption of Make-Up Obligation. Watermaster shall assume the Make-Up Obligation for and on behalf of the Basin.

(m) Water Quality. Water quality in the Basin shall be a concern of Watermaster, and all reasonable steps shall be taken to assist and encourage appropriate regulatory agencies to enforce reasonable water quality regulations affecting the Basin, including regulation of solid and liquid waste disposal.

(n) Cyclic Storage Agreements. To enter into appropriate contracts, to be approved by the Court, for utilization of Ground Water storage capacity of the Basin for cyclic or regulatory storage of Supplemental Water by parties and non-parties, for subsequent recovery or Watermaster credit by the storing entity, pursuant to uniform rules and conditions, which shall include provision for:

(1) Watermaster control of all spreading or injection and extraction scheduling and procedures for such stored water;

(2) calculation by Watermaster of any special costs, damages or burdens resulting from such operations;

(3) determination by Watermaster of, and accounting for, all losses in

stored water, assuming that such stored water floats on top of the Ground Water supplies, and accounting for all losses of water which otherwise would have replenished the Basin, with priorities being established as between two or more such contractors giving preference to parties over non-parties; and

(4) payment to Watermaster for the benefit of the parties hereto of all special costs, damages or burdens incurred (without any charge, rent, assessment or expense as to parties hereto by reason of the adjudicated proprietary character of said storage rights, nor credit or offset for benefits resulting from such storage); provided, that no party shall have any direct interest in or control over such contracts or the operation thereof by reason of the adjudicated right of such party, the Watermaster having sole custody and control of all Ground Water storage rights in the Basin pursuant to the Physical Solution herein, and subject to review of the Court.

(o) Notice List. Maintain a current list of party designees to receive notice hereunder, in accordance with Section 54 hereof.

(p) Authority to Sue. To prosecute litigation, engage in dispute resolution and file amicus curiae briefs in the furtherance of Watermaster's responsibilities under this Judgment. (Amended 6/21/12)

(q) Public Policy Education. To perform public policy education activities in furtherance of Watermaster's responsibilities under this Judgment. (Amended 6/21/12)

(r) Export Agreements. Watermaster may fix terms and conditions under which parties and non-parties may store Supplemental Water in and export said stored Supplemental Water from the Basin. (Amended 6/21/12)

35. Policy Decisions – Procedure. (Prior Judgment Section 27) It is contemplated that Watermaster will exercise discretion in making policy decisions relating to Basin management under the Physical Solution decreed herein. In order to assure full participation and opportunity to be heard for those affected, no policy decision shall be made by Watermaster until thirty (30) days after the question involved has been raised for discussion at a Watermaster

meeting and noted in the draft of minutes thereof.

36. Reports. (Prior Judgment Section 28) Watermaster shall annually file with the Court and mail to the parties a report of all Watermaster activities during the preceding year, including an audited statement of all accounts and financial activities of Watermaster, summary reports of Diversions and Pumping, and all other pertinent information. To the extent practical, said report shall be mailed to all parties on or before November 1. The tables set forth in Exhibits C, D, E, K, L and M are listed for reference purposes only. Future updates to those exhibits shall be set forth in the Watermaster annual report. In lieu of mailing the annual report, Watermaster in its discretion may post the report on its website, mail or e-mail a notice of availability to the parties, and/or provide a hard copy of the report upon request. If a party does not have a valid e-mail address or internet access, that party shall identify an alternative method of service to be approved by Watermaster in its sole discretion. (Amended 6/21/12)

37. Review Procedures. (Prior Judgment Section 29) Any action, decision, rule or procedure of Watermaster (other than a decision establishing Operating Safe Yield, see Section 43(c)) shall be subject to review by the Court on its own motion or on timely motion for an Order to Show Cause by any party, as follows:

(a) Effective Date of Watermaster Action. Any order, decision or action of Watermaster shall be deemed to have occurred on the date that written notice thereof is mailed. Mailing of draft copies of Watermaster minutes to the parties requesting the same shall constitute notice to all such parties.

(b) Notice of Motion. Any party may, by a regularly noticed motion, petition the Court for review of said Watermaster's action or decision. Notice of such motion shall be mailed to Watermaster and all parties. Unless so ordered by the Court, such petition shall not operate to stay the effect of such Watermaster action.

(c) Time for Motion. Notice of motion to review any Watermaster action or decision shall be served and filed within ninety (90) days after such Watermaster action or decision.

(d) De Novo Nature of Proceeding. Upon filing of such motion for hearing, the

Court shall notify the parties of a date for taking evidence and argument, and shall review de novo the question at issue on the date designated. The Watermaster decision or action shall have no evidentiary weight in such proceeding.

(e) Decision. The decision of the Court in such proceeding shall be an appealable Supplemental Order in this case. When the same is final, it shall be binding upon the Watermaster and the parties.

F. PHYSICAL SOLUTION

38. Purpose and Objective. (Prior Judgment Section 30) Consistent with the California Constitution and the decisions of the Supreme Court, the Court hereby adopts and Orders the parties to comply with this Physical Solution. The purpose and objective of these provisions is to provide a legal and practical means for accomplishing the most economic, long term, conjunctive utilization of surface, Ground Water, Supplemental Water and Ground Water storage capacity to meet the needs and requirements of the water users dependent upon the Basin and Relevant Watershed, while preserving existing equities.

39. Need for Flexibility. (Prior Judgment Section 31) In order that Watermaster may be free to utilize both existing and new and developing technological, social and economic concepts for the fullest benefit of all those dependent upon the Basin, it is essential that the Physical Solution hereunder provide for maximum flexibility and adaptability. To that end, the Court has retained continuing jurisdiction to supplement the broad discretion herein granted to the Watermaster.

40. Watermaster Control. (Prior Judgment Section 32) In order to develop an adequate and effective program of Basin management, it is essential that Watermaster have broad discretion in the making of Basin management decisions within the ambit hereinafter set forth. The maintenance, improvement, and control of the water quality and quantity of the Basin, withdrawal and replenishment of supplies of the Basin and Relevant Watershed, and the utilization of the water resources thereof, must be subject to procedures established by Watermaster in implementation of the provisions of this Judgment. Both the quantity and quality of said water resource are thereby preserved and its beneficial utilization maximized.

(Amended 1/29/91)

(a) Watermaster shall develop an adequate and effective program of Basin management. The maintenance, improvement, and control of the water quality and quantity of the Basin, withdrawal and replenishment of supplies of the Basin and Relevant Watershed, and the utilization of the water resources thereof, must be subject to procedures established by Watermaster in implementation of the Physical Solution provisions of this Judgment. All Watermaster programs and procedures shall be adopted only after a duly noticed public hearing pursuant to Section 37 and 40 of the Amended Judgment herein. (Amended 1/29/91)

(b) Watermaster shall have the power to control pumping in the Basin by water Producers therein for Basin cleanup and water quality control so that specific well production can be directed as to a lesser amount, to total cessation, as to an increased amount, and even to require pumping in a new location in the Basin. Watermaster's right to regulate pumping activities of Producers shall be subordinate to any conflicting Basin cleanup plan established by the EPA or other public governmental agency with responsibility for ground water management or clean up, whether existing at the time of this Judgment or subsequent hereto. (Amended 2/24/92)

(c) Watermaster may act individually or participate with others to carry on technical and other necessary investigations of all kinds and collect data necessary to carry out the herein stated purposes. It may engage in contractual relations with the EPA or other agencies in furtherance of the clean up of the Basin and enter into contracts with agencies of the United States, the State of California, or any political subdivision, municipality, or district thereof, to the extent allowed under the applicable federal or state statutes. Any cooperative agreement between the Watermaster and EPA shall require the approval of the appropriate Agency(s) of the State of California. (Amended 1/29/91)

(d) For the regulation and control of pumping activity in the Basin, Watermaster shall adopt Rules and Regulations and programs to promote, manage and accomplish

clean up of the Basin and its waters, including, but not limited to, measures to confine, move, and remove contaminants and pollutants. Such Rules and Regulations and programs shall be adopted only after a duly Noticed Public Hearing by Watermaster and shall be subject to Court review pursuant to Section 37 of the Amended Judgment herein. (Amended 1/29/91)

(e) Watermaster shall determine whether funds from local, regional, state or federal agencies are available for regulating pumping and the various costs associated with, or arising from such activities. If no public funds are available from local, regional, state, or federal agencies, the costs shall be obtained and paid by way of an In-Lieu Assessment by Watermaster pursuant to Section 10(j) of the Amended Judgment herein. Provided such In-Lieu Assessments become necessary, the costs shall be borne by all Basin Producers. (Amended 1/29/91)

(f) Watermaster is a Court empowered entity with limited powers, created pursuant to the Court's Physical Solution Jurisdiction under Article X, Section 2 of the California Constitution. None of the powers granted herein to Watermaster shall be construed as designating Watermaster a political subdivision of the State of California or authorizing Watermaster to act as "lead agency" to administer the federal Superfund for clean up of the Basin. (Amended 1/29/91)

41. General Pattern of Contemplated Operations. (Prior Judgment Section 33) In general outline (subject to the specific provisions hereafter and to Watermaster Operating Criteria set forth in Exhibit "H"), Watermaster will determine annually the Operating Safe Yield of the Basin and will notify each Pumper of his share thereof, stated in acre feet per Fiscal Year. Thereafter, no party may Produce in any Fiscal Year an amount in excess of the sum of his Diversion Right, if any, plus his Pumper's Share of such Operating Safe Yield, or his Integrated Production Right, or the terms of any Cyclic Storage Agreement, without being subject to Assessment for the purpose of purchasing Replacement Water. In establishing the Operating Safe Yield, Watermaster shall follow all physical, economic, and other relevant parameters provided in the Watermaster Operating Criteria. Watermaster shall have Assessment powers to

raise funds essential to implement the management plan in any of the several special circumstances herein described in more detail.

42. Basin Operating Criteria. (Prior Judgment Section 34) Until further order of the Court, Watermaster shall recharge Replacement Water in accordance with the Watermaster Operating Criteria and, insofar as practicable, to maintain the water level at the Key Well above Elevation two hundred (200). (Amended 6/21/12)

43. Determination of Operating Safe Yield. (Prior Judgment Section 35) Watermaster shall annually determine the Operating Safe Yield applicable to the succeeding Fiscal Year and estimate the same for the next succeeding four (4) Fiscal Years. In making such determination, Watermaster shall be governed in the exercise of its discretion by the Watermaster Operating Criteria. The procedures with reference to said determination shall be as follows:

(a) Preliminary Determination. On or before Watermaster's first meeting in April of each year, Watermaster shall make a Preliminary Determination of the Operating Safe Yield of the Basin for each of the succeeding five Fiscal Years. Said determination shall be made in the form of a report containing a summary statement of the considerations, calculations and factors used by Watermaster in arriving at said Operating Safe Yield.

(b) Notice and Hearing. A copy of said Preliminary Determination and report shall be mailed to each Pumper and Integrated Producer at least ten (10) days prior to a hearing to be held at Watermaster's regular meeting in May, of each year, at which time objections or suggested corrections or modifications of said determinations shall be considered. Said hearing shall be held pursuant to procedures adopted by Watermaster.

(c) Watermaster Determination and Review Thereof. Within thirty (30) days after completion of said hearing, Watermaster shall mail to each Pumper and Integrated Producer a final report and determination of said Operating Safe Yield for each such Fiscal Year, together with a statement of the Producer's entitlement in each such Fiscal Year stated in acre-feet. Any affected party, within thirty (30) days of mailing of notice

of said Watermaster determination, may, by a regularly noticed motion, petition the Court for an Order to Show Cause for review of said Watermaster finding, and thereupon the Court shall hear such objections and settle such dispute. Unless so ordered by the Court, such petition shall not operate to stay the effect of said report and determination. In the absence of such review proceedings, the Watermaster determination shall be final.

44. Reports of Pumping and Diversion. (Prior Judgment Section 36) Each party shall file with the Watermaster quarterly, on or before the last day of January, April, July and October, a report on a form to be prescribed by Watermaster showing the total Pumping and Diversion (separately for Direct Use and for non-consumptive use, if any) of such party during the preceding calendar quarter.

45. Assessments – Purpose. (Prior Judgment Section 37)

(a) Statement of Authority and Need for Flexibility: Watermaster shall have the power to levy and collect Assessments from the parties (other than non-consumptive users, or Production under Special Category Rights or Cyclic Storage Agreements) based upon Production during the preceding Fiscal Year. Assessments on Minimal Producers will apply only to (1) existing parties who become Minimal Producers in the future; and (2) Minimal Producers who intervene after June 21, 2012. Because Supplemental Water may not be available for extended periods of time, Watermaster requires flexibility with respect to the procedures for purchasing Supplemental Water supplies, as and when those supplies become available. This Judgment is a Physical Solution entered pursuant to California Constitution Article X, Section 2, which recognizes that the timing and amount of Watermaster Assessments for Replacement Water costs must be determined in light of this uncertainty. This Judgment therefore grants Watermaster the flexibility and discretion necessary to purchase and pre-purchase Supplemental Water and levy assessments in an appropriate and equitable manner and amount to maximize the opportunities to secure necessary Supplemental Waters in the best interest of the parties and the long-term sustainability of the Basin. In accordance with Rules and Regulations adopted by Watermaster, to further enhance flexibility, Watermaster may borrow money

from any available fund maintained by it for purposes other than Replacement Water purchases, or use accrued funds, to purchase Supplemental Water. (Amended 6/21/12)

(b) Authorized Assessments: Said Assessments may be for one or more of the following purposes:

(1) Watermaster Administration Costs. (Former Section 45(a)) Within thirty (30) days after completion of the hearing on the Preliminary Determination of the Operating Safe Yield of the Basin and Watermaster's determination thereof, pursuant to Section 43 hereof, Watermaster shall adopt a proposed budget for the succeeding Fiscal Year and shall mail a copy thereof to each party, together with a statement of the level of Administration Assessment levied by Watermaster which will be collected for purposes of raising funds for said budget. Said Assessment shall be uniformly applicable to each acre-foot of Production. (Amended 6/21/12)

(2) Replacement Water Costs. (Former Section 45(b)) Replacement Water Assessments shall be collected from each party on account of such party's Production in excess of its Diversion Rights, Pumper's Share or Integrated Production Right, and on account of the consumptive use portion of Overlying Rights, computed at the applicable rate established by Watermaster consistent with the Watermaster Operating Criteria, and other relevant factors, including the projected cost and availability of Supplemental Water supplies. Subject to Rules and Regulations adopted by Watermaster, Watermaster Replacement Water Assessment rates may be in an amount calculated to allow Watermaster to purchase more than one acre-foot of Supplemental Water for each acre-foot of excess Production to which such Assessment applies, when such purchases are necessary to secure Supplemental Water supplies for the benefit of the Basin and parties. (Amended 6/21/12)

(3) Make-Up Obligation. (Former Section 45(c)) An Assessment shall be collected equally on account of each acre-foot of Production, which does not

bear a Replacement Assessment hereunder, to pay all necessary costs of Administration and satisfaction of the Make-Up Obligation. Such Assessment shall not be applicable to water Production for an Overlying Right.

(4) In-Lieu Water Cost. (Former Section 45(d)) Watermaster may levy an Assessment against all Pumping to pay reimbursement for In-Lieu Water Costs except that such Assessment shall not be applicable to the non-consumptive use portion of an Overlying Right.

(5) Basin Water Quality Improvement. (Former Section 45(e)) For purposes of testing, protecting or improving the water quality in the Basin, Watermaster may, after a noticed hearing thereon, fix terms and conditions under which it may waive all or any part of its Assessments on such ground water Production and if such Production, in addition to his other Production, does not exceed such Producer's Share or entitlement for that Fiscal Year, such stated Production shall be allowed to be carried over for a part of such Producer's next Fiscal Year's Producer's Share or entitlement. In connection therewith, Watermaster may also waive the provisions of Section 25, 26 and 57 hereof, relating to Injunction Against Unauthorized Recharge, Injunction Against Transportation From Basin or Relevant Watershed, and Intervention After Judgment, respectively. Nothing in this Judgment is intended to allow an increase in any Producer's annual entitlement nor to prevent Watermaster, after hearing thereon, from entering into contracts to encourage, assist and accomplish the clean up and improvement of degraded water quality in the Basin by non-parties herein. Such contracts may include the exemption of the Production of such Basin water therefor from Watermaster Assessments and, in connection therewith, the waiver of the provisions of Judgment Sections 25, 26, and 57 hereof.

(6) Export and Storage. Watermaster shall levy an assessment to account for costs, burdens or losses incurred in connection with such exported or stored

water, including a fee for storage administration. Such storage or export shall be subject to (1) a determination by Watermaster that no material injury to the Basin or parties will result therefrom; (2) execution of an agreement with Watermaster setting forth the terms and conditions upon which water may be stored in or exported from the Basin; and (3) compliance with Watermaster Rules and Regulations respecting Basin storage and export. (Amended 6/21/12)

(7) Water Resource Development Assessment. Watermaster may levy an Assessment on all Pumping, as determined through Rules and Regulations to be adopted by the Watermaster, to support the purchase, financing, and/or development of new or additional Supplemental Water sources, in cooperation with one or more Responsible Agencies as appropriate. (Amended 6/21/12)

46. Assessments – Procedure. (Prior Judgment Section 38) Assessments herein provided for shall be levied and collected as follows:

(a) Levy and Notice of Assessment. Within thirty (30) days of Watermaster's annual determination of Operating Safe Yield of the Basin for each Fiscal Year and succeeding four (4) Fiscal Years, and at such other time[s] of the year as determined by Watermaster, Watermaster shall levy applicable Administration Assessments, Replacement Water Assessments, Make-Up Water Assessments, In-Lieu Water Assessments, and Water Resource Development Assessments, if any. Watermaster shall give written notice of all applicable Assessments to each party on or before August 15, of each year, and at such other time[s] as determined by Watermaster. To provide flexibility and maximize the opportunity to secure Replacement Water supplies when available, in accordance with criteria set forth in the Watermaster Rules and Regulations, Watermaster may levy supplemental assessments as necessary to create sufficient funds to purchase and pre-purchase such Replacement Water supplies for the benefit of the Basin and parties. (Amended 6/21/12)

(b) Payment. Each Assessment shall be payable, and each party is Ordered to pay the same, on or before September 20, following such Assessment, subject to the

rights reserved in Section 37 hereof.

(c) Delinquency. Any Assessment which becomes delinquent after January 1, 1980, shall bear interest at the annual prime rate plus one percent (1%) in effect on the first business day of August of each year. Said prime interest rate shall be that fixed by the Bank of America NT&SA for its preferred borrowing customers on said date. Said prime interest rate plus one percent (1%) shall be applicable to any said delinquent Assessment from the due date thereof until paid. Provided, however, in no event shall any said delinquent Assessment bear interest at a rate of less than ten percent (10%) per annum. Such delinquent Assessment and interest may be collected in a Show Cause proceeding herein or any other legal proceeding instituted by Watermaster, and in such proceeding the Court may allow Watermaster its reasonable costs of collection, including attorney's fees.

47. Availability of Supplemental Water from Responsible Agencies. (Prior Judgment Section 39) If any Responsible Agency shall, for any reason, be unable to deliver Supplemental Water to Watermaster in a timely fashion when needed, Watermaster may (1) collect funds at an appropriate level and hold them in trust, together with interest accrued thereon, for purchase of such water when available; (2) purchase water from the remaining Responsible Agencies which are the most beneficial and appropriate sources observing all legal and contractual constraints on the availability of such water; or (3) purchase Supplemental Water from any other available source. Watermaster shall consult with the Responsible Agencies involved and in good faith shall determine the appropriate source of Supplemental Water under such circumstances. Should Watermaster arrange to purchase Supplemental Water from a source not involving a Responsible Agency, Watermaster shall provide the Responsible Agencies an opportunity to provide said Supplemental Water or comparable water supplies on comparable terms. (Amended 6/21/12)

48. Accumulation of Replacement Water Assessment Proceeds. (Prior Judgment Section 40) In order to minimize fluctuation in Assessments and to give Watermaster flexibility in Basin management, Watermaster may make reasonable accumulations of Replacement Water

Assessments. Such moneys and any interest accrued thereon shall only be used for the purchase of Replacement Water.

49. Carry-over of Unused Rights. (Prior Judgment Section 41) Any Pumper's Share of Operating Safe Yield, and the Production right of any Integrated Producer, which is not Produced in a given Fiscal Year may be carried over and accumulated for one Fiscal Year, pursuant to reasonable rules and procedures for notice and accounting which shall be adopted by Watermaster. The first water Produced in the succeeding Fiscal Year shall be deemed Produced pursuant to such Carry-over Rights.

50. Minimal Producers. (Prior Judgment Section 42) In the interest of Justice, Minimal Producers who initiated production on or before June 21, 2012, are exempted from the operation of this Physical Solution, so long as such party's annual Production does not exceed five (5) acre-feet. Watermaster may require, and Minimal Producers shall furnish, specific periodic reports. In addition, Watermaster may conduct such investigation of future operations of any Minimal Producer as may be appropriate. As of June 21, 2012, there shall be no new Minimal Producers, and any new Producer shall be subject to all provisions of the Judgment. (Amended 6/21/12)

51. Effective Date. (Prior Judgment Section 43) The effective date for commencing accounting and operation under this Physical Solution, other than for Replacement Water Assessments, shall be July 1, 1972. The first Assessment for Replacement Water shall be payable on September 20, 1974, on account of Fiscal Year 1973-74 Production.

G. MISCELLANEOUS PROVISIONS

52. Puente Narrows Flow. (Prior Judgment Section 44) The Puente Basin is tributary to the Main San Gabriel Basin. All Producers within said Puente Basin have been dismissed herein, based upon the Puente Narrows Agreement (Exhibit "J"), whereby Puente Basin Water Agency agreed not to interfere with surface inflow and to assure continuance of historic subsurface contribution of water to Main San Gabriel Basin. The Court declares said Agreement to be reasonable and fair and in full satisfaction of claims by Main San Gabriel Basin for natural water from Puente Basin.

53. Deleted Section (Amended 6/21/12)

54. Service Upon and Delivery to Parties of Various Papers. (Prior Judgment Section 46) Service of the Judgment on those parties who have executed the Stipulation for Judgment shall be made by first class mail, postage prepaid, addressed to the Designee and at the address designated for that purpose in the executed and filed counterpart of the Stipulation for Judgment, or in any substitute designation filed with the Court.

Each party who has not heretofore made such a designation shall, within thirty (30) days after the Judgment shall have been served upon that party, file with the Court, with proof of service of a copy thereof upon Watermaster, a written designation of the person to whom and the address at which all future notices, determinations, requests, demands, objections, reports and other papers and processes to be served upon that party or delivered to that party are to be so served or delivered.

A later substitute designation filed and served in the same manner by any party shall be effective from the date of filing as to the then future notices, determinations, requests, demands, objections, reports and other papers and processes to be served upon or delivered to that party.

Delivery to or service upon any party by Watermaster, by any other party, or by the Court, of any item required to be served upon or delivered to a party under or pursuant to the Judgment may be made by deposit thereof (or by copy thereof) in the mail, first class, postage prepaid, addressed to the Designee of the party and at the address shown in the latest designation filed by that party. In lieu of mailing any item required to be served under this Judgment, Watermaster may serve such item by electronic service, which may include posting the document to Watermaster's website, sending an e-mail of the document to that party, or sending a notice of availability to that party indicating the document's availability for viewing on the Watermaster website. If a party does not have a valid e-mail address or internet access, that party shall identify an alternative method of service to be approved by Watermaster in its sole discretion.

Any party desiring to be relieved of receiving notices of Watermaster activity may file a waiver of notice on a form to be provided by Watermaster. Thereafter such party shall be

removed from the active party service list and not receive any notices required under this Judgment. The parties have a duty to keep Watermaster informed of their current e-mail and mailing addresses. If mail or e-mail is returned undeliverable to Watermaster for an incorrect address, Watermaster in its sole discretion may remove that party from the active party service list. (Amended 6/21/12)

55. Assignment, Transfer, etc., of Rights. (Prior Judgment Section 47) Any rights Adjudicated herein except Overlying Rights, may be assigned, transferred, licensed or leased by the owners thereof; provided however, that no such assignment shall be complete until the appropriate notice procedures established by Watermaster have been complied with. No water Produced pursuant to rights assigned, transferred, licensed, or leased may be transported outside the Relevant Watershed except by:

(1) a Transporting Party, or

(2) a successor in interest immediate or mediate to a water system on lands or portion thereof, theretofore served by such a Transporting Party, for use by such successor in accordance with limitations applicable to Transporting Parties, or

(3) a successor in interest to the Special Category rights of MWD.

The transfer and use of Overlying Rights shall be limited, as provided in Section 21 hereof, as exercisable only on the specifically defined Overlying Lands and they cannot be separately conveyed or transferred apart therefrom.

56. Abandonment of Rights. (Prior Judgment Section 48) It is in the interest of reasonable beneficial use of the Basin and its water supply that no party be encouraged to take and use more water in any Fiscal Year than is actually required. Failure to Produce all of the water to which a party is entitled hereunder shall not, in and of itself, be deemed or constitute an abandonment of such party's right, in whole or in part. Abandonment and extinction of any right herein Adjudicated shall be accomplished only by:

(1) a written election by the party, filed in this case, or

(2) upon noticed motion of Watermaster, and after hearing.

In either case, such abandonment shall be confirmed by express subsequent order of this

Court.

57. Intervention After Judgment. (Prior Judgment Section 49) Any person who is not a party or successor to a party and who proposes to Produce water from the Basin or Relevant Watershed, may seek to become a party to this Judgment through a Stipulation For Intervention entered into with Watermaster. Watermaster may execute said Stipulation on behalf of the other parties herein but such Stipulation shall not preclude a party from opposing such Intervention at the time of the Court hearing thereon. Said Stipulation For Intervention must thereupon be filed with the Court, which will consider an order confirming said Intervention following thirty (30) days' notice to the parties. Thereafter, if approved by the Court, such Intervenor shall be a party bound by this Judgment and entitled to the rights and privileges accorded under the Physical Solution herein.

58. Judgment Binding on Successors, etc. (Prior Judgment Section 50) Subject to specific provisions hereinbefore contained, this Judgment and all provisions thereof are applicable to and binding upon and inure to the benefit of not only the parties to this action, but as well to their respective heirs, executors, administrators, successors, assigns, lessees, licensees and to the agents, employees and attorneys in fact of any such persons.

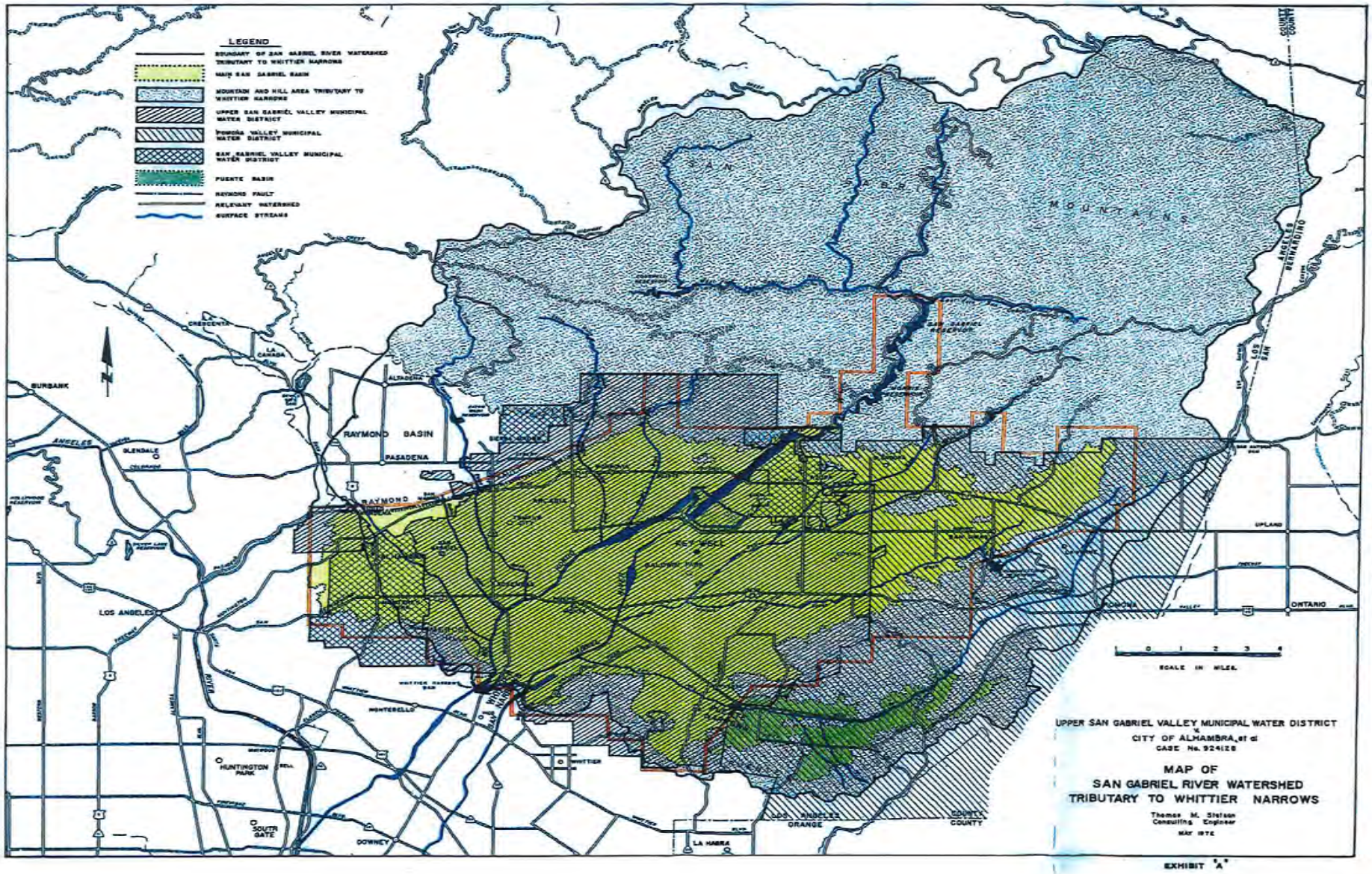
59. Water Rights Permits. (Prior Judgment Section 51) Nothing herein shall be construed as affecting the relative rights and priorities between MWD and San Gabriel Valley Protective Association under State Water Rights Permits Nos. 7174 and 7175, respectively.

60. Costs. (Prior Judgment Section 52) No party shall recover any costs in this proceeding from any other party.

61. Entry of Judgment. (New) The Clerk shall enter this Judgment.

DATED: June 21, 2012

s/ Maureen Duffy-Lewis
Maureen Duffy-Lewis, Judge
Specially Assigned


LEGEND
BOUNDARY OF SAN GABRIEL RIVER WATERSHED TRIBUTARY TO WHITTIER NARROWS
MAIN SAN GABRIEL BASIN
MOUNTAIN AND HILL AREA TRIBUTARY TO WHITTIER NARROWS
UPPER SAN GABRIEL VALLEY MUNICIPAL WATER DISTRICT
POMONA VALLEY MUNICIPAL WATER DISTRICT
SAN GABRIEL VALLEY MUNICIPAL WATER DISTRICT
PUENTE BASIN
RAYMOND FAULT
RELEVANT WATERSHED
SURFACE STREAMS
SAN GABRIEL MOUNTAINS
RAYMOND BASIN
PASADENA
BURBANK
GLENDALE
LOS ANGELES
MONTEBELLO
HUNTINGTON PARK
SOUTH GATE
DOWNEY
LA HABRA
WHITTIER
UPLAND
ONTARIO
POMONA
SAN GABRIEL RIVER
SCALE IN MILES
UPPER SAN GABRIEL VALLEY MUNICIPAL WATER DISTRICT
vs
CITY OF ALHAMBRA, et al
CASE No. 924128
MAP OF
SAN GABRIEL RIVER WATERSHED
TRIBUTARY TO WHITTIER NARROWS
Thomas M. Stetson
Consulting Engineer
EXHIBIT "A"

APPENDIX B

AD HOC COMMITTEE ON OSY

BASIN WATER MANAGEMENT COMMITTEE

OPERATING SAFE YIELD SCENARIOS

Presented July 13, 2011

OPERATING SAFE YIELD SCENARIOS

- Brief Summary of June OSY Workshop
  - Historical Operational Data
  - Scenarios Reviewed at June 2011 OSY Workshop
- Additional OSY Scenarios Reviewed
- Discussion

OPERATING SAFE YIELD SCENARIOS

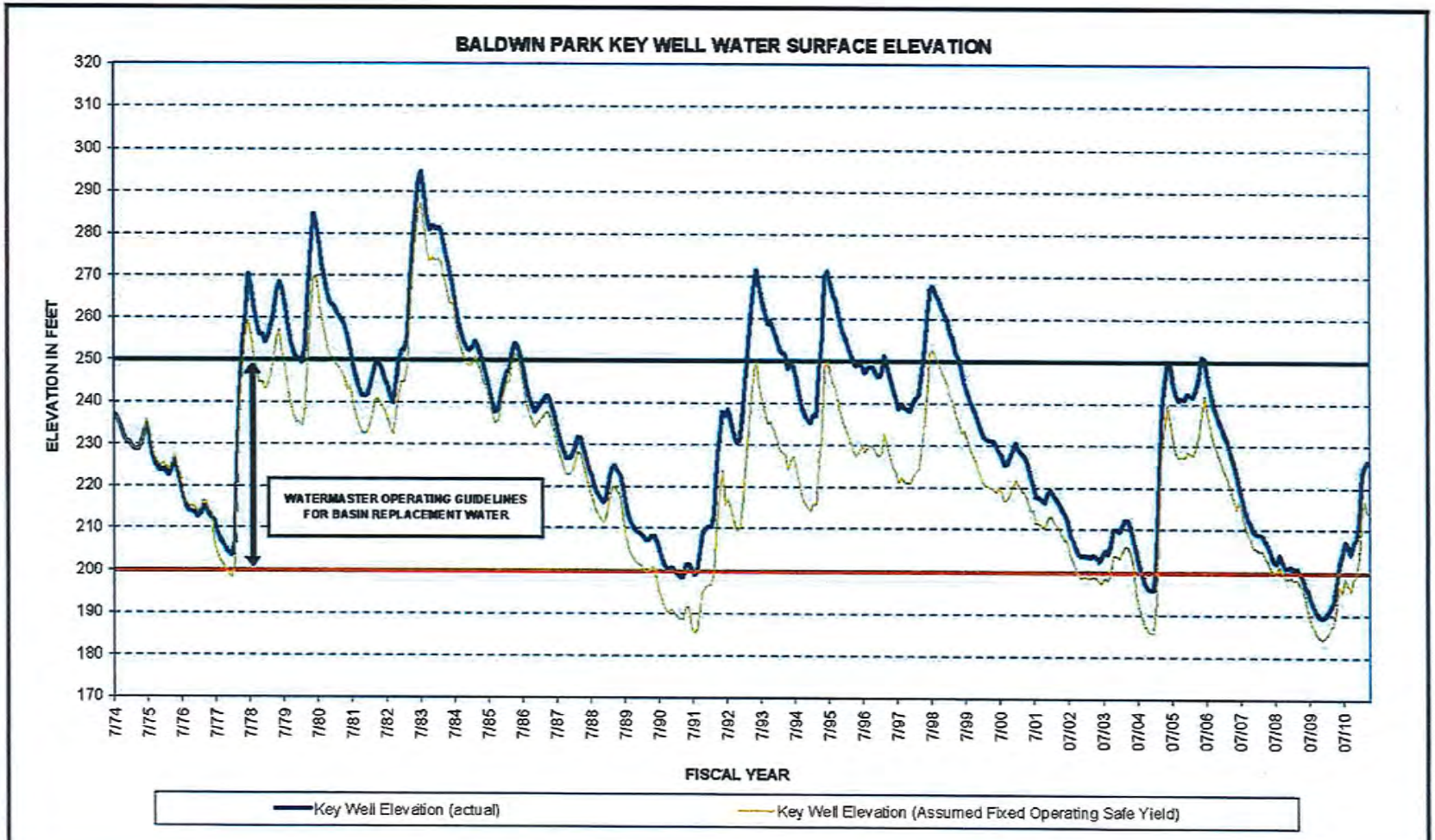
Historical Operational Data

FY 1974-75 to 2010-11 Average OSY (Adopted)	197,300 AF
FY 1974-75 to 2010-11 Average OSY (Engineer's Recommendation)	187,000 AF
FY 1974-75 to 2010-11 Average Production	246,334 AF
FY 1974-75 to 2010-11 Average Imported Water	37,900 AF

OPERATING SAFE YIELD SCENARIOS

Summary of June OSY Workshop - Scenarios Reviewed

- 1A – Assume OSY set at 200,000 AFY since Judgment
  - Key Well elevation would be about 12.5 feet lower
- 1B – Assume OSY set at 200,000 AFY for last 20 years
  - Key Well elevation would be about 1.25 feet higher
- 2 – Assume "1993 Alternate" employed in 1994:
  - Key Well above 250 ft. – OSY 200,000 AF
  - Key Well between 210 ft. and 250 ft. – OSY 190,000 AF
  - Key Well below 210 ft. – OSY 180,000 AF
  - Key Well would be about 22.5 feet higher



STETSON ENGINEERS INC.

Covina San Rafael Mesa, Arizona

WATER RESOURCE ENGINEERS

MAIN SAN GABRIEL BASIN WATERMASTER

IMPACT TO BALDWIN PARK KEY WELL ELEVATION
OPERATING SAFE YIELD FIXED AT 200,000 ACRE-FEET
SINCE FISCAL YEAR 1974-75
(JUDGMENT)

FIGURE 1A

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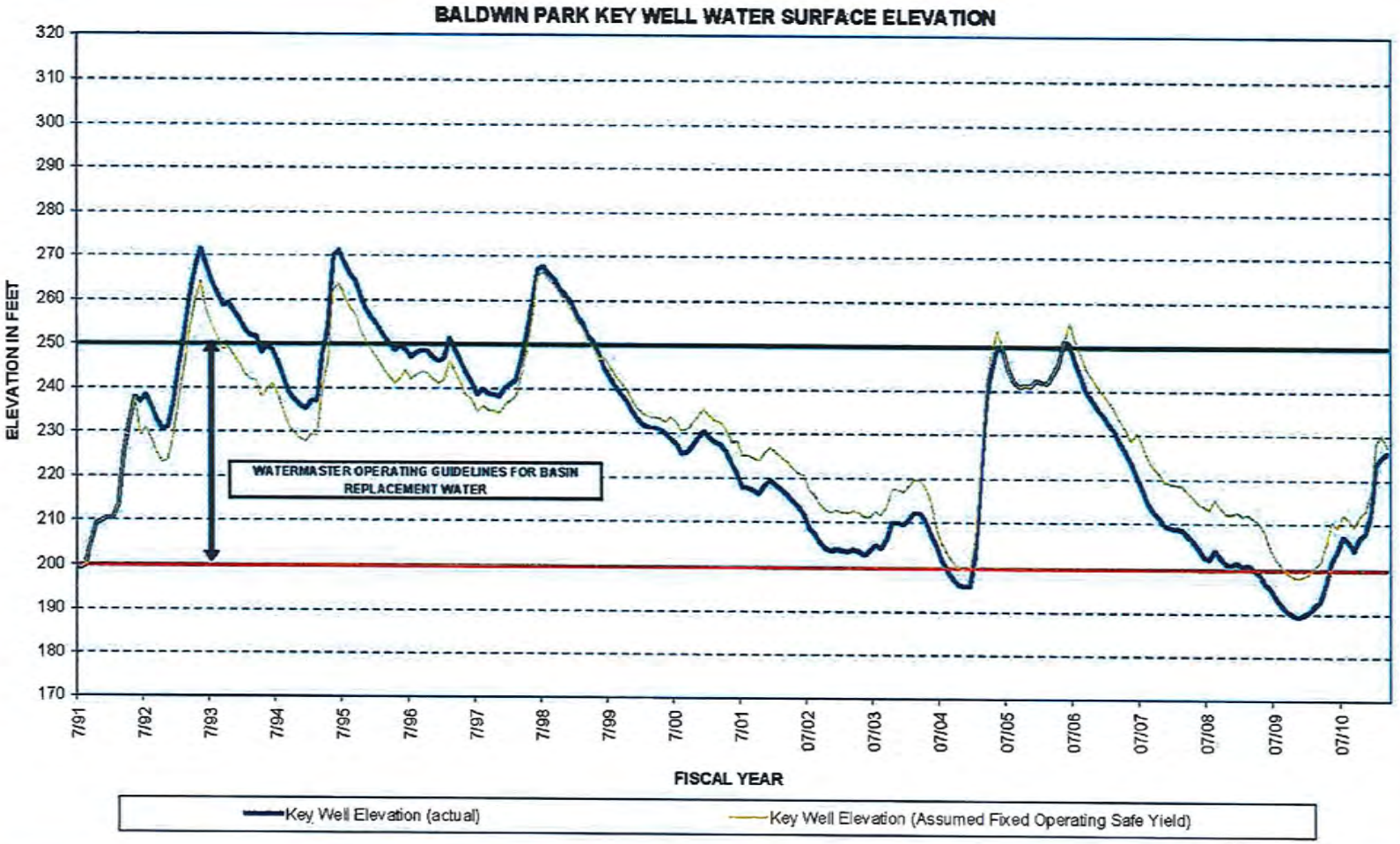

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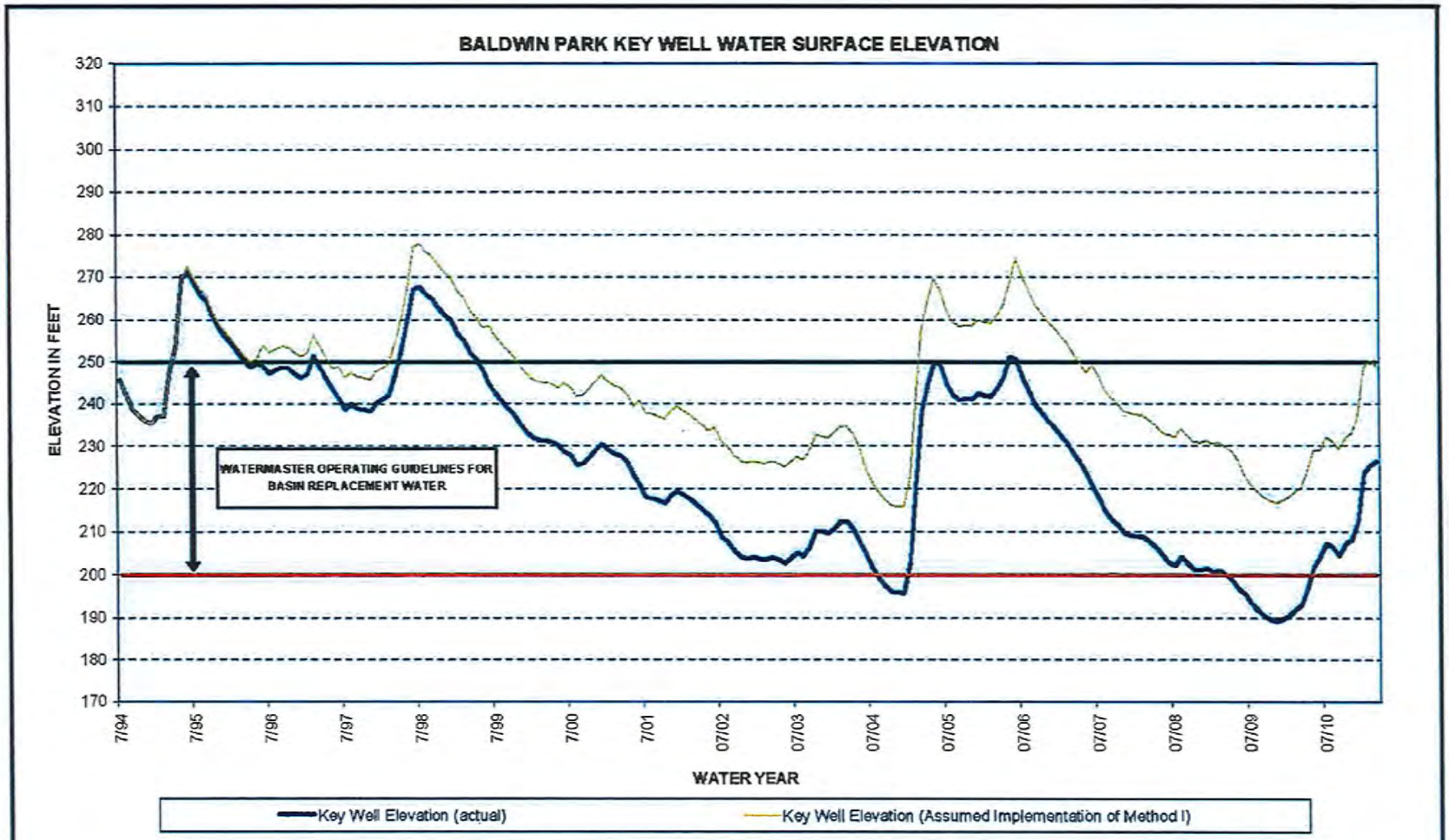
MAIN SAN GABRIEL BASIN WATERMASTER

IMPACT TO BALDWIN PARK KEY WELL ELEVATION OPERATING SAFE YIELD FIXED AT 200,000 ACRE-FEET SINCE FISCAL YEAR 1991-92 (20 YEARS)

FIGURE 1B



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MAIN SAN GABRIEL BASIN WATERMASTER

IMPACT TO BALDWIN PARK KEY WELL ELEVATION
IMPLEMENTATION OF METHOD I FROM 1993 STUDY
SINCE FISCAL YEAR 1994-95

FIGURE 2

Z:\Jobs\1205\1205-04\2011-12\Preliminary\KeyWell Elev Various Scenarios

NEW OPERATING SAFE YIELD SCENARIOS

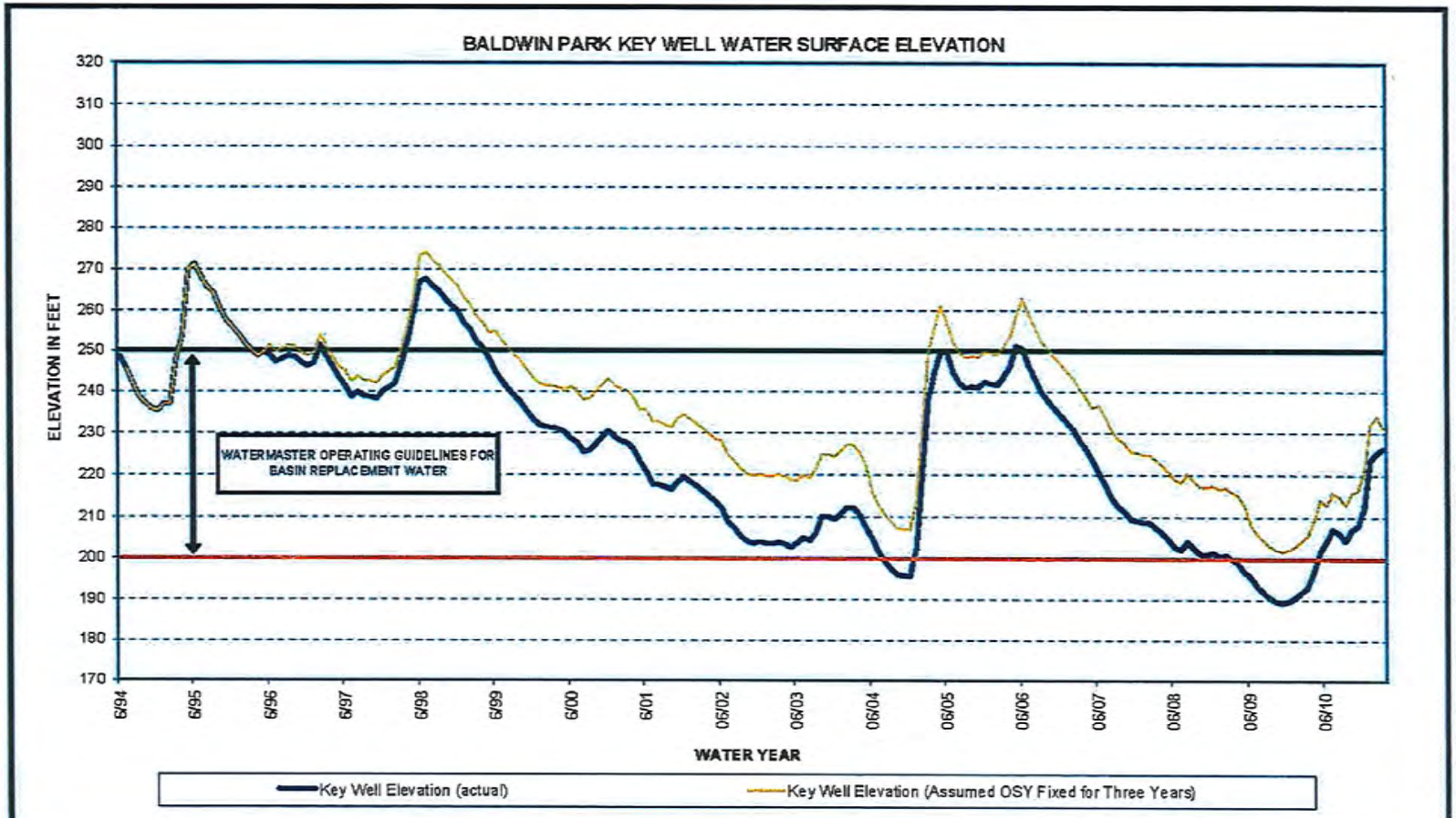
Additional OSY Scenarios Reviewed

- Scenario 3 – Assume OSY set for three consecutive years, based on the following, commencing fiscal year 1994-95:
  - Key Well above 250 ft. – OSY 210,000 AFY
  - Key Well between 210 ft. and 250 ft. – OSY 200,000 AFY
  - Key Well above 210 ft. – OSY 190,000 AFY
  - Begin in fiscal year 1994-95
- Scenario 4 – Assume OSY set each year, based on the following, commencing fiscal year 1994-95:
  - Key Well above 250 ft. – OSY 210,000 AF
  - Key Well between 210 and 250 ft. – OSY 200,000 AF
  - Key Well below 210 ft. – OSY 190,000 AF
- Scenario 5 – Assume OSY set each year, based on the following, commencing fiscal year 1994-95
  - Key Well above 240 ft. – OSY 200,000 AF
  - Key Well between 200 and 240 ft. – OSY 190,000 AF
  - Key Well below 200 ft. – OSY 180,000 AF

OPERATING SAFE YIELD SCENARIOS

Evaluation of Scenario 3: OSY Set for Three Years Based on Key Well Elevation

- Similar to scenario 1B (fixed OSY at 200,000 AF since 1991-92).
- OSY would have been set at 200,000 AF in 14 out of 17 years
- The historic "low" Key Well elevation could have been about 202 ft. instead of about 189 ft.
- The Key Well water elevations would be much more consistent with the wet/dry periods.
- The Key Well water level currently would be about 5 ft. higher.



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WATER RESOURCE ENGINEERS

MAIN SAN GABRIEL BASIN WATERMASTER

IMPACT TO BALDWIN PARK KEY WELL ELEVATION
OPERATING SAFE YIELD WILL BE FIXED THREE YEARS
SINCE FISCAL YEAR 1994-95
BASED ON KEY WELL ELEVATIONS

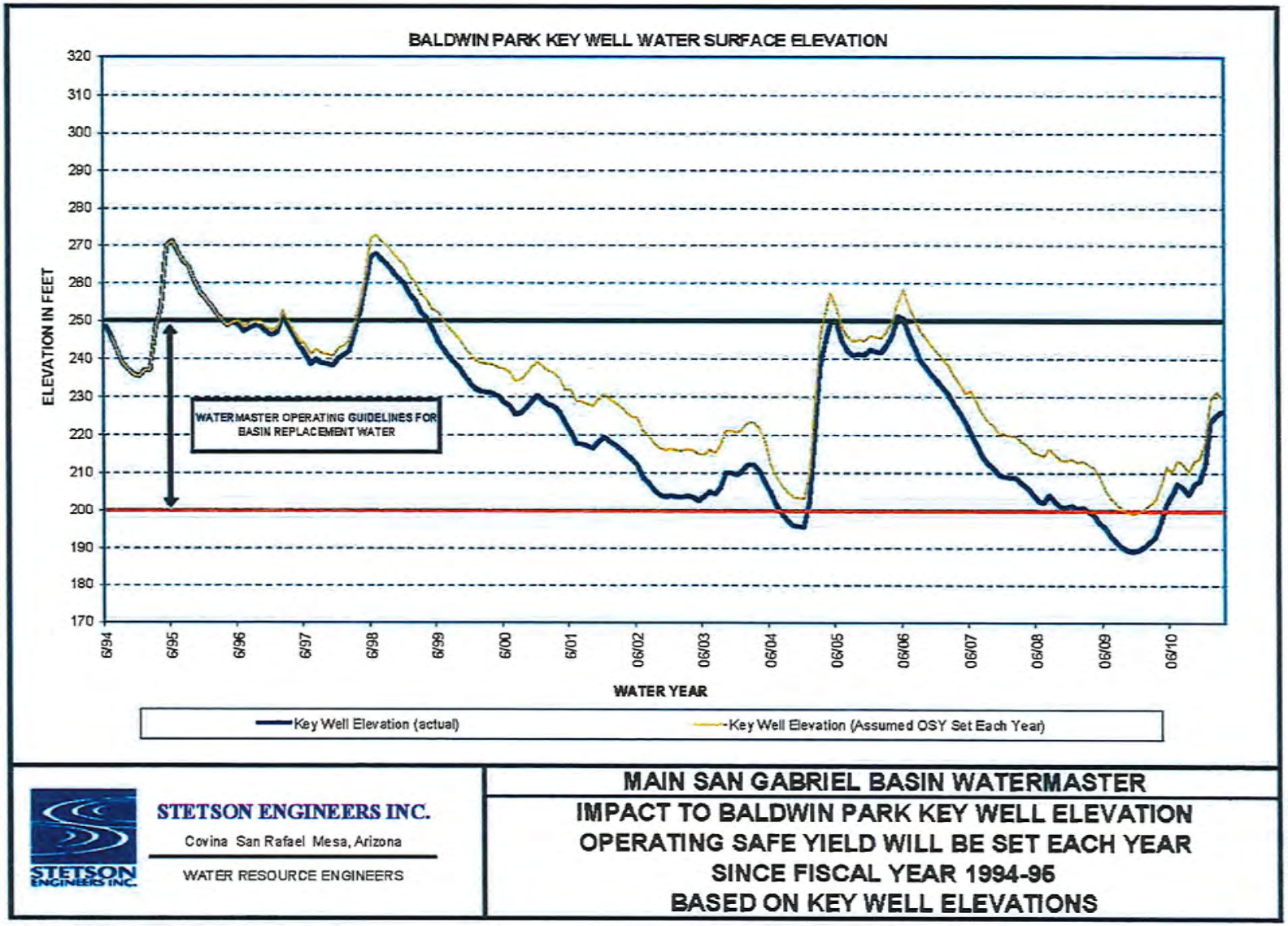
FIGURE 3

J:\Jobs\1205\1205-16\OSY Scenarios Impacts to KeyWell\KeyWell Elev Various Scenarios

OPERATING SAFE YIELD SCENARIOS

Evaluation of Scenario 4: OSY Set Each Year Based on Key Well Elevation

- Similar to scenario 1B (set OSY at 200,000 AF since 1991-92).
- OSY would have been set at 200,000 AF in 11 out of 17 years and set at 210,000 AF 5 out of 17 years.
- The historic "low" Key Well elevation could have been about 200 ft. instead of about 189 ft.
- The Key Well water elevations would be much more consistent with the wet/dry periods.
- The Key Well water level currently would be about 3.75 ft. higher.



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MAIN SAN GABRIEL BASIN WATERMASTER

IMPACT TO BALDWIN PARK KEY WELL ELEVATION
OPERATING SAFE YIELD WILL BE SET EACH YEAR
SINCE FISCAL YEAR 1994-95
BASED ON KEY WELL ELEVATIONS

FIGURE 4

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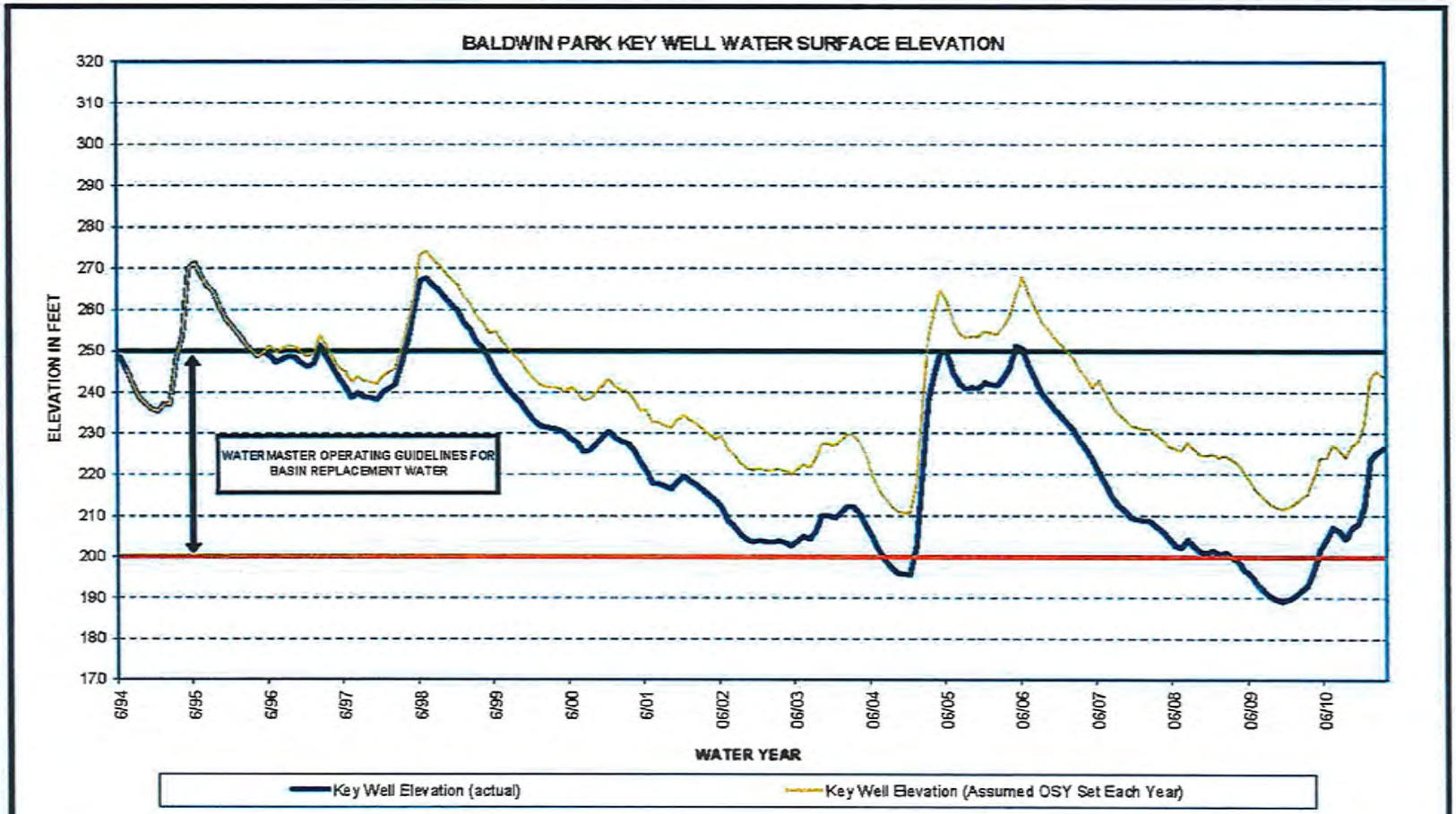
OPERATING SAFE YIELD SCENARIOS

Evaluation of Scenario 5: OSY Set Each Year Based on Key Well Elevation

- Similar to scenario 2 (set OSY between 180,000 AF and 200,000 AF since 1994-95). As a result, significant impacts are seen in the scenario 5 water levels at the Key Well compared to Scenarios 1A, 1B, 3 and 4.
- OSY would have been set at 200,000 AF in 10 out of 17 years; and set at 190,000 AF the other 7 years.
- The historic "low" Key Well elevation could have been about 212 ft. instead of about 189 ft.
- The Key Well water elevations would be much more consistent with the wet/dry periods.
- The Key Well water level currently would be about 17.5 ft. higher.



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WATER RESOURCE ENGINEERS

MAIN SAN GABRIEL BASIN WATERMASTER

IMPACT TO BALDWIN PARK KEY WELL ELEVATION
OPERATING SAFE YIELD WILL BE SET EACH YEAR
SINCE FISCAL YEAR 1994-95
BASED ON KEY WELL ELEVATIONS

FIGURE 5

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OPERATING SAFE YIELD SCENARIOS

DISCUSSION

APPENDIX C

AD HOC COMMITTEE
ON STORMWATER CAPTURE

MAIN SAN GABRIEL BASIN WATERMASTER

STORMWATER CAPTURE AD HOC COMMITTEE

SUMMARY OF POTENTIAL STORMWATER PROJECTS

(Note : Potential Project data includes information provided by LACDPW, Watermaster, Upper District's Water SMART 2011 Grant Funding Application, and the previous PERC II/III Reports)

December 2011

STETSON ENGINEERS INC.

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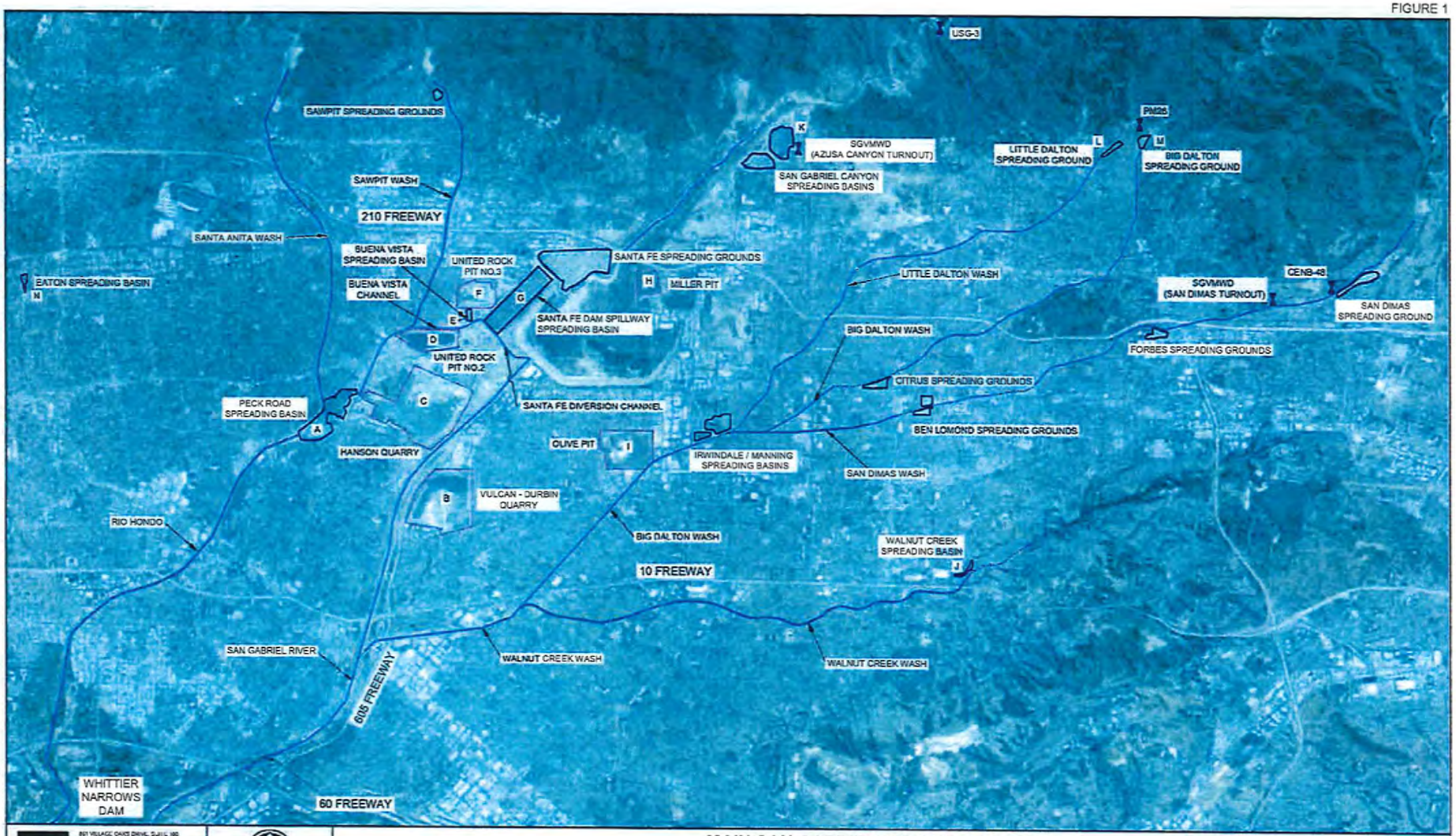
SUMMARY OF POTENTIAL STORMWATER PROJECTS

List of Appendices

FIGURE 1



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APPROX. SCALE : 0 3,000 6,000

MAIN SAN GABRIEL BASIN WATERMASTER
STORMWATER CAPTURE AD HOC COMMITTEE

LOCATION MAP

D:\JOBS\1205\1205-82\DPW data\spreading grounds\FIGURE 1.DWG
D:\JOBS\1205-82.CTB

PECK ROAD SPREADING BASIN (Location A)
(PECK ROAD WATER CONSERVATION PARK)

LOCATION OF THE FACILITY: Confluent of Sawpit and Santa Anita Washes

SOURCE OF STORM WATER: Santa Anita Dam and Wash, Sawpit Dam and Wash, Buena Vista Channel, and Santa Fe Dam

IMPORTED WATER: USG-3 (capacity: 400 cfs) and SGVMWD (Azusa Canyon Turnout – capacity: 55 cfs)

OWNER AND YEAR OF FIRST OPERATION: DPW / 1959-1960

SPREADING FACILITY CHARACTERISTICS

Basin Type	Deep
No. of Basins	1
Storage Capacity	3,347 AF
Intake Capacity	30,100 CFS
Total Area	157 Acres
Wetted Area	105 Acres

HISTORICAL MAXIMUM ANNUAL AMOUNT OF WATER CONSERVED: 50,026 AFY (1982-83)

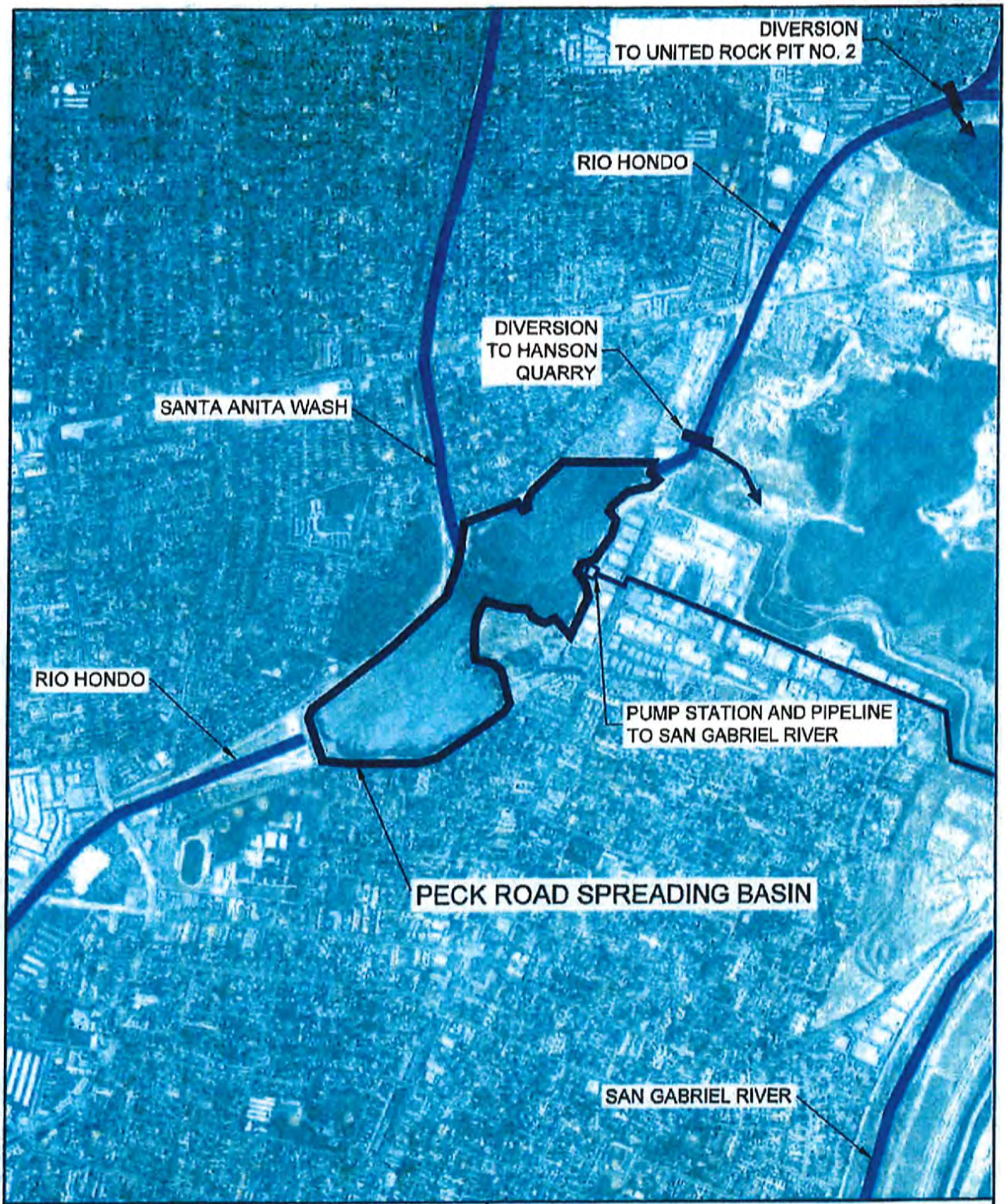
AVERAGE ANNUAL REPLENISHMENT: 7,817 AFY

SPREADING LIMITATIONS

Percolation Rate from LACDPW:	25 CFS
Short Term (5 days) from PERC III:	25 CFS
Long Term from PERC III:	15 CFS

Included in 2009 LACDPW Water Conservation Plan? YES

FIGURE A



STETSON ENGINEERS INC.

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Mesa Arizona 85202

NORTH

APPROX. SCALE :
0 750' 1,500'

MAIN SAN GABRIEL BASIN WATERMASTER
STORMWATER CAPTURE AD HOC COMMITTEE

PECK ROAD SPREADING BASIN
LOCATION A

D:\JOBS\1205\1205-82\DPW data\spreading grounds\FIGURE A.DWG
D:\JOBS\1205-82.CTB

PECK ROAD SPREADING BASIN (Location A)
(PECK ROAD WATER CONSERVATION PARK) continued

POTENTIAL IMPROVEMENTS

LACDPW Concepts:

1. When the water elevation at the Peck Road Spreading Basin is below 300 feet, LACDPW has found the percolation rate to be about 1 to 5 cfs. When the water elevation is above 300 feet, the percolation rate increases. LACDPW would like to increase the percolation rate by removing sediments and soil from the bottom of the basin. It is unknown what the percolation rate will be increased to. In addition, sediment has accumulated at the outlet of Santa Anita Wash. LACDPW would also remove the sediments at the outlet of Santa Anita Wash.

   LACDPW proposes to conserve more storm water by pumping the water from Peck Road Spreading Basin to the San Gabriel River after each storm event. The percolation rate in the San Gabriel River between Lower Azusa Road and Ramona Boulevard is about 50 cfs, which is a higher percolation rate compared to the percolation rate at Peck Road Spreading Basin. Transferring the storm water to the San Gabriel River will allow more storm water to be conserved in the Main Basin. LACDPW proposes to construct two 25 cfs vertical turbine pumps inside a concrete underground pump station at the north end of Peck Road Spreading Basin. The water will flow through about 7,000 feet of 36-inch steel lined reinforced concrete pipe from the Peck Road Spreading Basin to the San Gabriel River. The pipeline will outlet into the soft-bottom channel of the San Gabriel River. The estimated cost to construct the pump system and pipeline is approximately $6 million. The electricity cost to operate the pump is approximately $35,000 annually.

   LACDPW has included this project in their presentation entitled, "Water in Los Angeles County," which can be found in Appendix A.

Upper District Concepts:

1. Similar to LACDPW, UD proposes to conserve more storm water by pumping the water from the Peck Road Spreading Basin to the San Gabriel River after each storm event. As stated under the LACDPW concepts, the percolation rate at the Peck Road Spreading Basin when the water elevation is below 300 feet is about 1 to 5 cfs. The percolation rate at the San Gabriel River is about 50 cfs. Transferring the storm water to the San Gabriel River will allow more storm water to be conserved in the Main Basin. Upper District proposes to construct a 50 cfs pump station on the east side of the Peck Road Spreading Basin. The water will flow through a 42-inch pipeline from the pumping station to the San Gabriel River. An outlet structure will also be constructed at the San Gabriel River. The estimated cost to construct the pump station and pipeline is approximately $5 million.

PECK ROAD SPREADING BASIN (Location A)
(PECK ROAD WATER CONSERVATION PARK) continued

Watermaster Concepts:

1. Conserve more storm water by constructing a rubber dam downstream of the confluence of Sawpit Wash and the Buena Vista Channel, adjacent to the United Rock Pit No. 2. This concept will allow storm water to be captured from the Sawpit Wash and the Buena Vista Channel before entering Peck Road Spreading Basin and allowing more water to be conserved in the Main Basin during a storm event. Need to install a rubber dam and appurtenant facilities. The cost of the project is estimated to be about $3.5 million.
2. Conserve more storm water by constructing a rubber dam downstream of the confluence of Sawpit Wash and the Buena Vista Channel, adjacent to the Hanson Quarry and before the Peck Road Spreading Basin. This concept will allow storm water to be captured from the Sawpit Wash and the Buena Vista Channel before entering Peck Road Spreading Basin and allowing more water to be conserved in the Main Basin during a storm event. Need to install a rubber dam and appurtenant facilities. The cost of the project is estimated to be about $3.5 million.

ESTIMATE OF WATER CONSERVED IN MAIN BASIN:

Gross Amount: Undetermined

"New Water": LACDPW estimates "New Water" to be about 3,100 AFY.

VULCAN DURBIN QUARRY – Active Sand and Gravel Quarry (Location B)

Location: Southerly of Los Angeles Street, easterly of I-605 Freeway

City: Irwindale

Potential Source of Storm Water: Santa Fe Dam, San Gabriel River

Potential Source of Imported Water: USG-3 (capacity: 400 cfs) and SGVMWD (Azusa Canyon Turnout – capacity: 55 cfs)

Adjacent Storm Channel: San Gabriel River

SAND AND GRAVEL PIT CHARACTERISTICS

Owner	Vulcan Materials Company
Status	Active
Closure Date	2019/2034
Gross Area	334 Acres
Gross Storage Capacity	--
Depth	440 feet

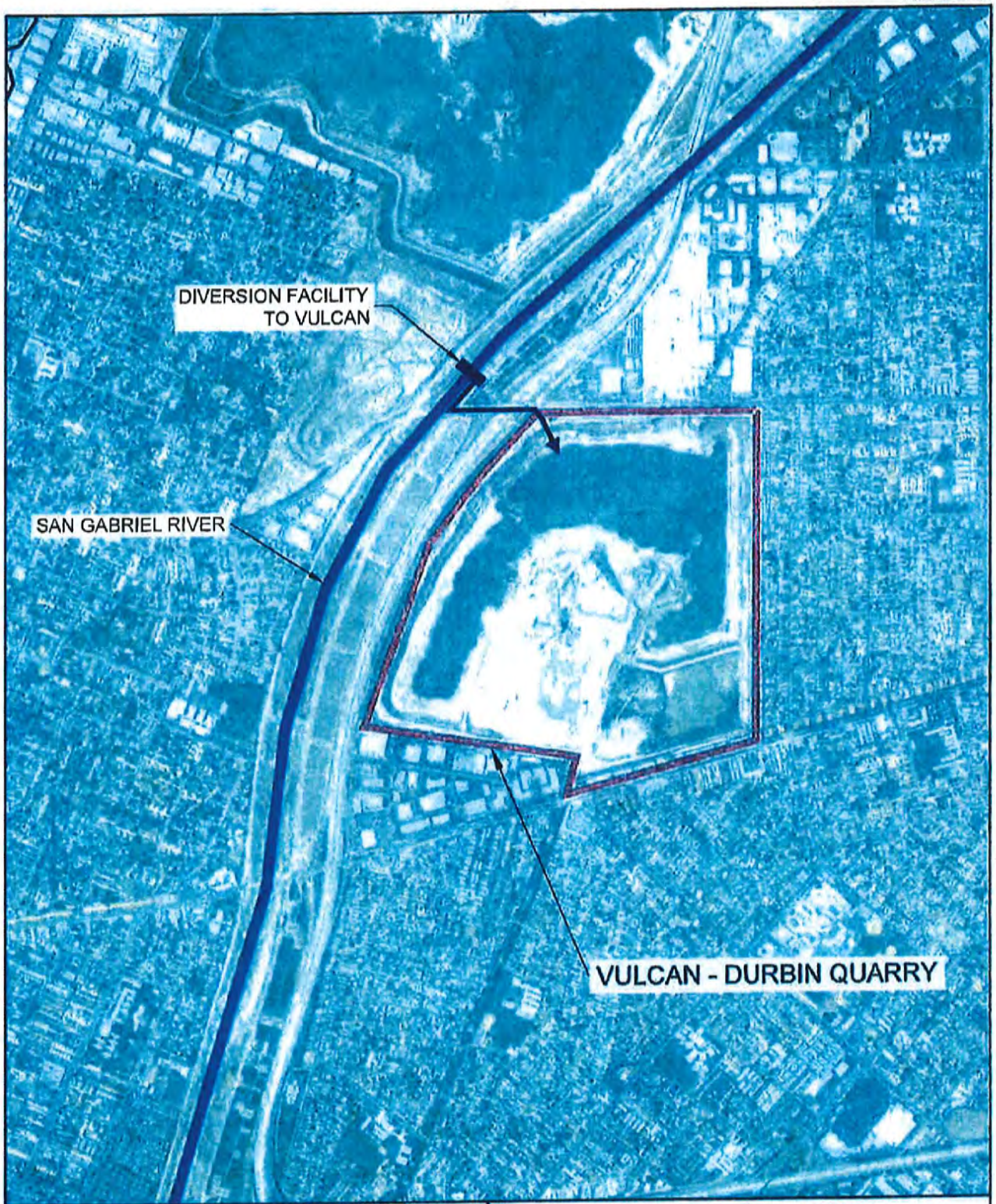
Reclamation Plan:

Completion Year: Currently, 2019, however, Vulcan is proposing to increase the operational life of this quarry by 15 years; therefore the closure date could be 2034.

Vulcan proposes to reclaim the quarry for industrial, commercial and retail uses.

Included in 2009 LACDPW Water Conservation Plan? NO

FIGURE B



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NORTH

APPROX. SCALE :
0 750' 1,500'

MAIN SAN GABRIEL BASIN WATERMASTER
STORMWATER CAPTURE AD HOC COMMITTEE

VULCAN - DURBIN QUARRY
LOCATION B

D:\JOBS\1205\1205-82\DPW data\spreading grounds\FIGURE B.DWG
D:\JOBS\1205-82.CTB

VULCAN DURBIN QUARRY – Active Sand and Gravel Quarry (Location B) continued

POTENTIAL IMPROVEMENTS

Watermaster Concept:

1. Divert water from the San Gabriel River to the Vulcan Durbin Quarry. A rubber dam or other diversion facility will be required in the San Gabriel River. A pipeline will need to be constructed from the San Gabriel River, past the 605 Freeway and to Vulcan Durbin Quarry. An outlet structure will also be constructed at the Vulcan Durbin Quarry. The cost of the project is estimated to be about $4 million.

ESTIMATE OF WATER CONSERVED IN MAIN BASIN:

Gross Amount: Undetermined

"New Water": The estimated "New Water" is about 250 cfs per day or about 500 AF per day. Based on historical operations and review of actual flows during water year 2004-05, flow to ocean occurred on 55 days of the year. Therefore, the total "New Water" is about 27,500 AF during water year 2004-05. Since this storm event occurs every five years, the annual recharge of "New Water" is about 5,500 AFY.

HANSON QUARRY – Active Sand and Gravel Quarry (Location C)

Location: Southerly of Live Oak Avenue, westerly of I-605 Freeway

City: Irwindale / Arcadia

Potential Source of Storm Water: Santa Fe Dam, San Gabriel River, Rio Hondo, and Buena Vista Channel

Potential Source of Imported Water: USG-3 (capacity: 400 cfs) and SGVMWD (Azusa Canyon Turnout – capacity: 55 cfs)

Adjacent Storm Channel: San Gabriel River

SAND AND GRAVEL PIT CHARACTERISTICS

Owner	Hanson Aggregates West, Inc.
Status	Active
Closure Date	2030 (see below)
Gross Area Irwindale	413 Acres
Gross Area Arcadia	35 Acres
Gross Storage Capacity	--
Depth	200 Feet

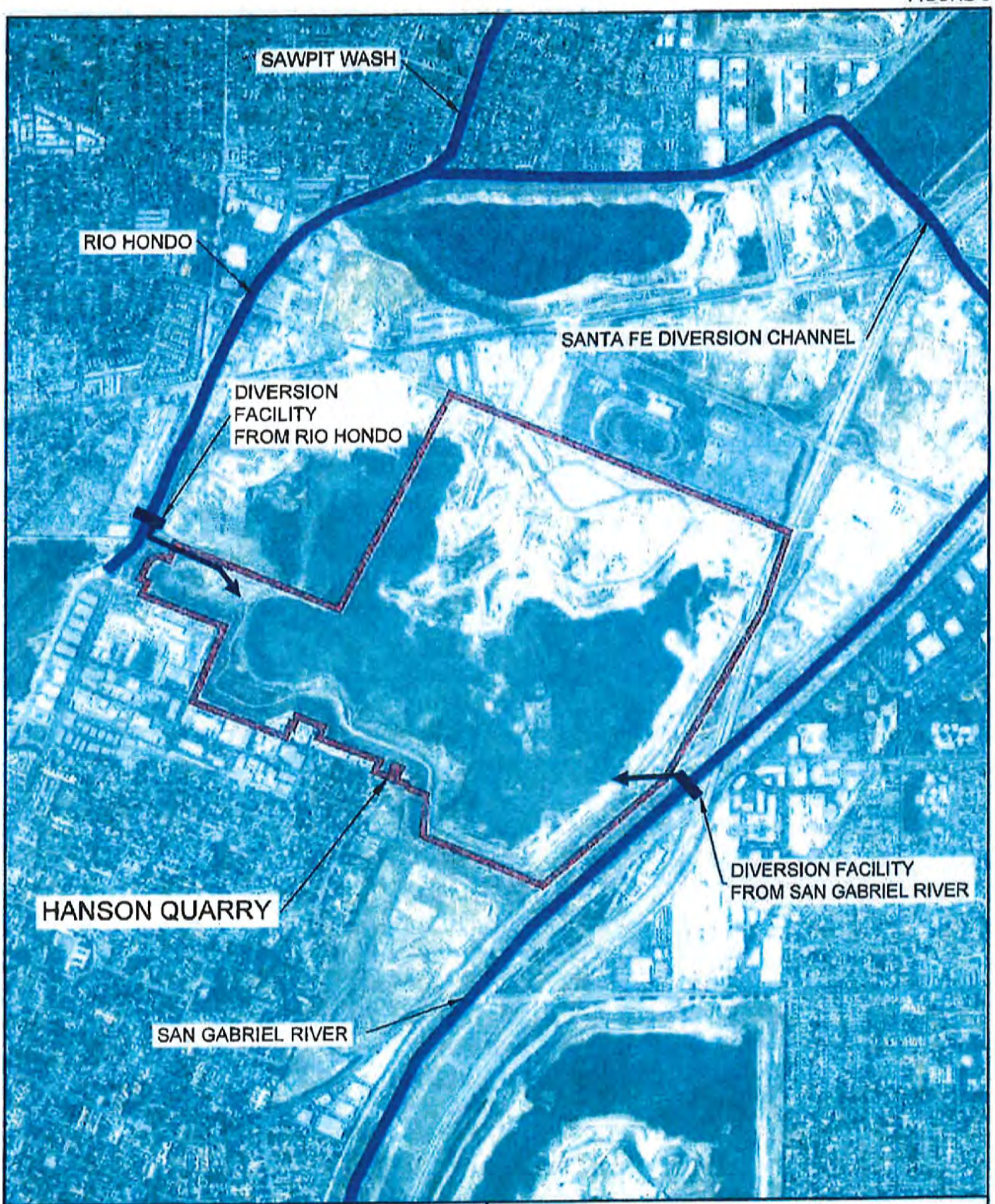
Reclamation Plan:

Completion Year: Mining through 2030, Reclamation Plan proposed to start 2030. Owner is applying for a new CUP (conditional use permit)

City of Irwindale Resolution 80-15-945. The reclamation plan includes: 1) backfill of a portion of the quarry for commercial development (40 acres); 2) turn 330 acres of the quarry into a lake; 3) grade a 72 acre pad for industrial, commercial and recreational uses; and 4) fill two parcels (total of 20 acres) to street level elevation for recreational, commercial and water uses.

Included in 2009 LACDPW Water Conservation Plan? NO

FIGURE C



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Mesa Arizona 85202

NORTH

APPROX. SCALE :
0 750' 1,500'

MAIN SAN GABRIEL BASIN WATERMASTER
STORMWATER CAPTURE AD HOC COMMITTEE

HANSON QUARRY
LOCATION C

D:\JOBS\1205\1205-82\DPW data\spreading grounds\FIGURE C.DWG
D:\JOBS\1205-82.CTB

HANSON QUARRY – Active Sand and Gravel Quarry (Location C) continued

POTENTIAL IMPROVEMENTS

Watermaster Concept:

1. Construct a diversion facility and pipeline from San Gabriel River to Hanson Quarry and divert the storm water to Hanson Quarry. An outlet structure will also need to be constructed at the Hanson Quarry. The cost of the project is unknown and needs to be investigated. The cost of the project is estimated to be about $4 million.
2. Construct a rubber dam and appurtenant facilities on the Rio Hondo, adjacent to the Hanson Quarry and before the Peck Road Spreading Basin. This concept will allow storm water to be captured from the Sawpit Wash and the Buena Vista Channel and allowing more water to be conserved during a storm event. Need to install a rubber dam and appurtenant facilities. The cost of the project is estimated to be about $3.5 million.

ESTIMATE OF WATER CONSERVED IN MAIN BASIN:

Gross Amount: Undetermined

"New Water": The estimated "New Water" is about 250 cfs per day or about 500 AF per day. Based on historical operations and review of actual flows during water year 2004-05, flow to ocean occurred on 55 days of the year. Therefore, the total "New Water" is about 27,500 AF during water year 2004-05. Since this storm event occurs every five years, the annual recharge of "New Water" is about 5,500 AFY.

UNITED ROCK PIT NO. 2 – Active Sand and Gravel Quarry (Location D)

Location: Northerly of Arrow Highway, westerly of Buena Vista Street

City: Irwindale

Potential Source of Storm Water: Santa Fe Dam, Sawpit Wash, and Buena Vista Channel

Potential Source of Imported Water: USG-3 (capacity: 400 cfs) and SGVMWD (Azusa Canyon Turnout – capacity: 55 cfs)

Adjacent Storm Channel: Santa Fe Diversion Channel / Sawpit Wash

SAND AND GRAVEL PIT CHARACTERISTICS

Owner	United Rock Products
Status	Active
Closure Date	--
Gross Area	134.63 Acres*
Gross Storage Capacity	--
Depth	275 Feet

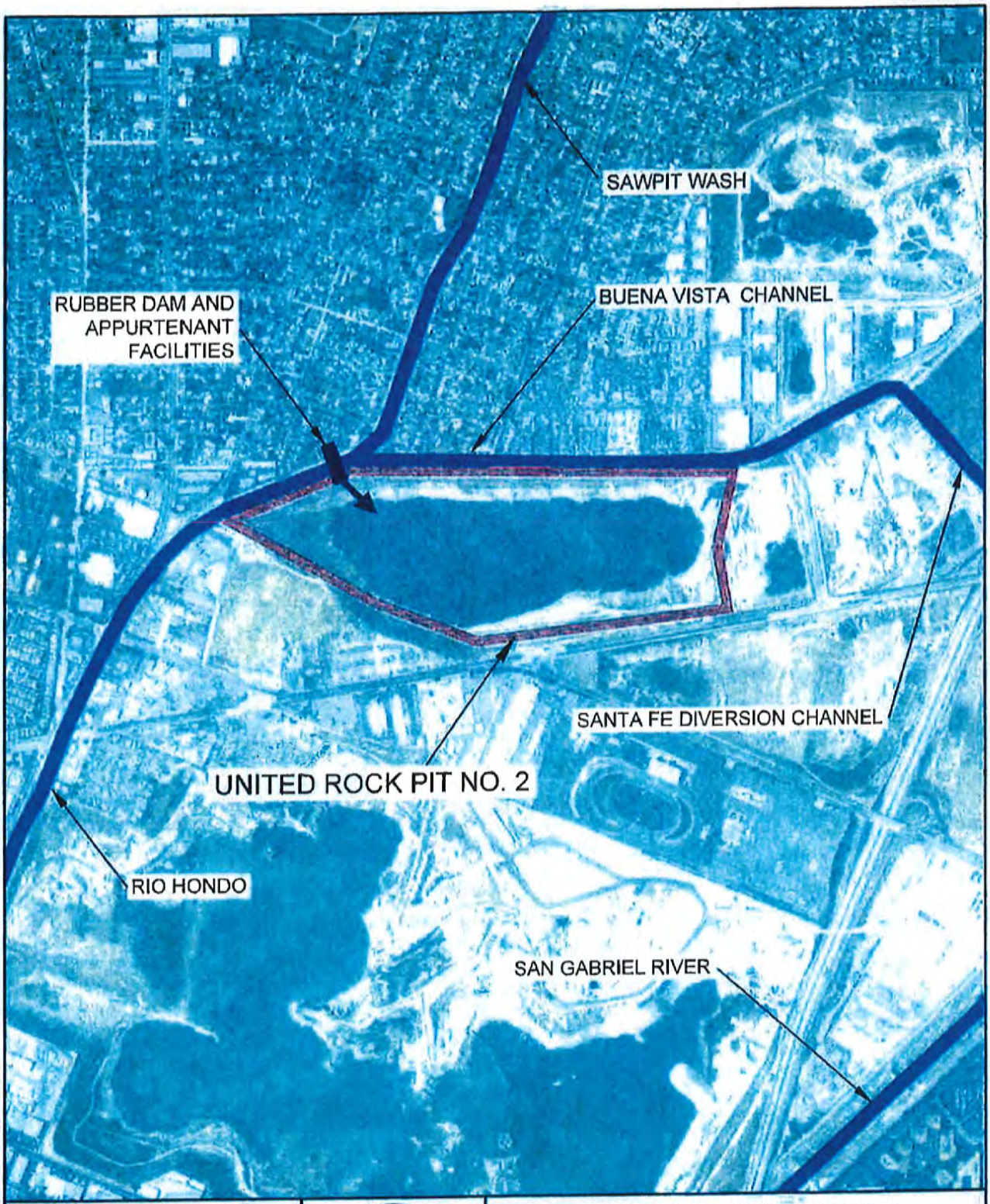
Reclamation Plan:

United Rock filed a reclamation plan that stated Pit No. 2 will be backfilled and reclaimed for a mix or industrial and/ or commercial use.

Included in 2009 LACDPW Water Conservation Plan? NO

* The 2005 Reclamation Plan proposes the Quarry be expanded by approximately 24.63 acres

FIGURE D



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NORTH

APPROX. SCALE :
0 500' 1,000'

MAIN SAN GABRIEL BASIN WATERMASTER
STORMWATER CAPTURE AD HOC COMMITTEE

UNITED ROCK PIT NO. 2
LOCATION D

D:\JOBS\1205\1205-82\DPW data\spreading grounds\FIGURE D.DWG
D:\JOBS\1205-82.CTB

UNITED ROCK PIT NO. 2 – Active Sand and Gravel Quarry (Location D) continued

POTENTIAL IMPROVEMENTS

Watermaster Concept:

1. Conserve more storm water by constructing a rubber dam downstream of the confluence of Sawpit Wash and the Buena Vista Channel, adjacent to the United Rock Pit No. 2. This concept will allow storm water to be captured from the Sawpit Wash and the Buena Vista Channel before entering Peck Road Spreading Basin and allowing more water to be conserved in the Main Basin during a storm event. Need to install a rubber dam and appurtenant facilities. The cost of the project is estimated to be about $3.5 million.

ESTIMATE OF WATER CONSERVED IN MAIN BASIN:

Gross Amount: Undetermined

"New Water": The estimated "New Water" is about 100 cfs per day or about 200 AF per day. Based on historical operations and review of actual flows during water year 2004-05, flow to ocean occurred on 32 days. Therefore, the total "New Water" is estimated to be about 6,400 AF during water year 2004-05. Since this storm event occurs every five years, the annual recharge of "New Water" is about 1,300 AFY.

BUENA VISTA SPREADING BASIN (Location E)

LOCATION OF THE FACILITY: Between Buena Vista Channel and Meridian St, west of the San Gabriel River, east of Sawpit Wash and north of Arrow Highway

SOURCE OF STORM WATER: Santa Fe Dam and Buena Vista Channel

IMPORTED WATER: USG-3 (capacity – 400 cfs) and SGVMWD (Azusa Canyon Turnout – capacity: 55 cfs)

OWNER AND YEAR OF FIRST OPERATION: DPW / 1954-1955

SPREADING FACILITY CHARACTERISTICS

Basin Type	Deep
No. of Basins	1
Storage Capacity	177 AF
Intake Capacity	2,900 CFS
Total Area	10 Acres
Wetted Area	6.0 Acres

HISTORICAL MAXIMUM ANNUAL AMOUNT OF WATER CONSERVED: 2,731 AFY (1957-58)

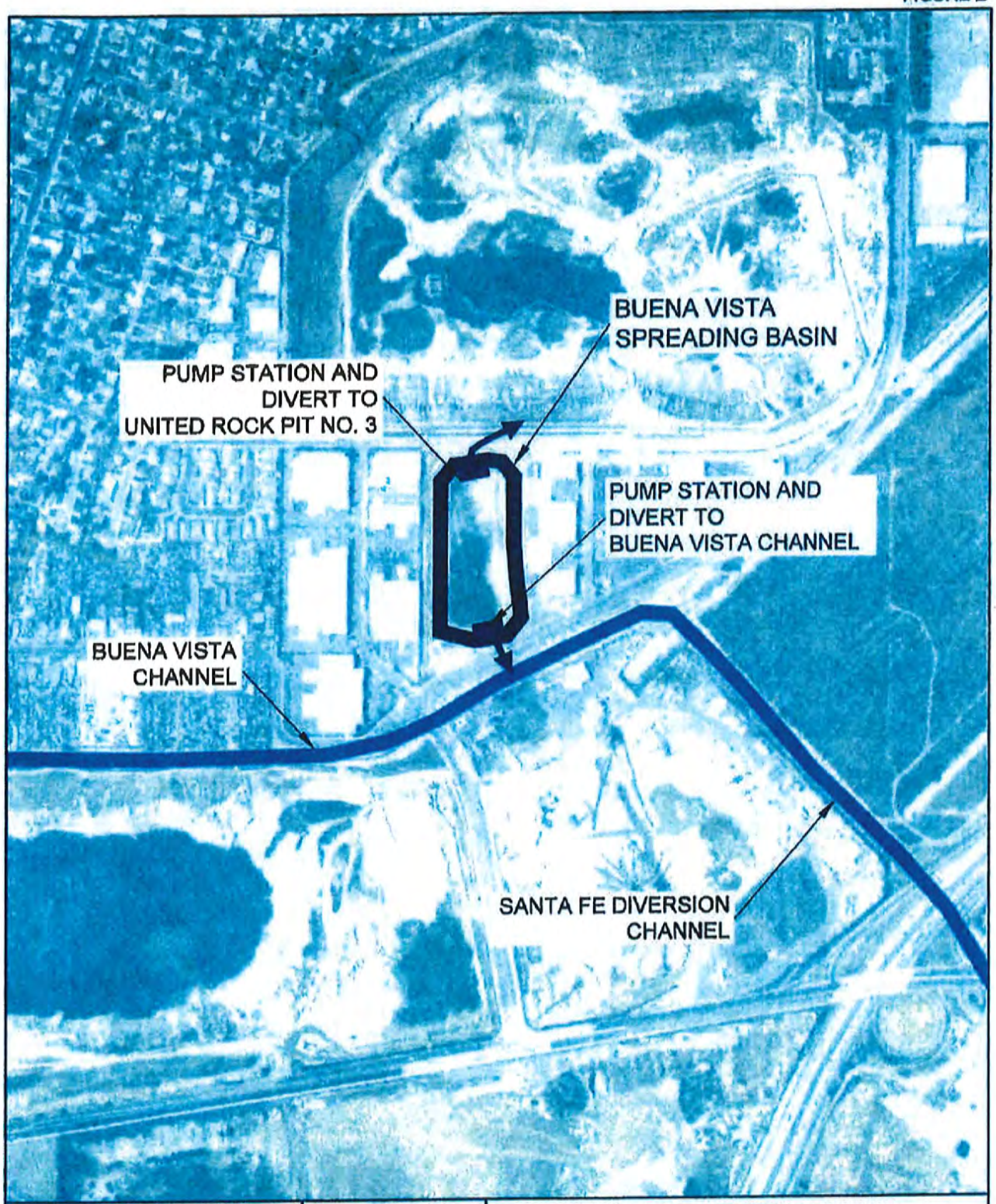
AVERAGE ANNUAL REPLENISHMENT: 610 AFY

SPREADING LIMITATIONS

Percolation Rate from LACDPW:	1 CFS
Short Term (5 days) from PERC III:	6 CFS
Long Term from PERC III:	2 CFS

Included in 2009 LACDPW Water Conservation Plan? YES

FIGURE E



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Mesa Arizona 85202

NORTH

APPROX. SCALE :
0 500' 1,000'

MAIN SAN GABRIEL BASIN WATERMASTER
STORMWATER CAPTURE AD HOC COMMITTEE

BUENA VISTA SPREADING BASIN
LOCATION E

D:\JOBS\1205\1205-82\DPW data\spreading grounds\FIGURE E.DWG
D:\JOBS\1205-82.CTB

BUENA VISTA SPREADING BASIN (Location E) continued

POTENTIAL IMPROVEMENTS

LACDPW Concepts:

1. LACDPW proposes to clean out the basin to optimize percolation rates, enhance habitat, and provide passive recreation. LACDPW did a percolation test and found the percolation to be about 1 cfs at the Buena Vista Spreading Basin. LACDPW proposes to clean the basin to increase the basin's percolation rate to 6 cfs. The preliminary construction cost estimate is about $1.5 to $6 million.

   LACDPW has included this project in their presentation entitled, "Water in Los Angeles County," which can be found in Appendix A.

Watermaster Concepts:

1. The Buena Vista Spreading Basin has a storage capacity of 177 AF. As a complimentary activity to that proposed by LACDPW, Watermaster staff proposes to also divert the "first flush" of each storm event into the Buena Vista Spreading Basin. After each storm, pump the water out for percolation to another facility (United Rock Pit No. 2, Hanson Quarry or Peck Road Spreading Basin). Need to construct a pump station at the Buena Vista Spreading Basin to pump the water into the Buena Vista Channel after each storm. The cost to construct this project is estimated to be about $500,000.

ESTIMATE OF WATER CONSERVED IN MAIN BASIN:

Gross Amount: Undetermined (About 150 AF per storm)

"New Water": Assumes about 150 AF per storm event. Based on the average of the last three years, a storm event occurs about ten times per year. Therefore, the estimated "New Water" is about 1,500 AFY.

UNITED ROCK PIT NO. 3 – Inactive Sand and Gravel Quarry (Location F)

Location: Westerly of Buena Vista Street, northerly of Santa Fe Diversion Channel

City: Irwindale

Potential Source of Storm Water: Santa Fe Dam, Sawpit Wash and Buena Vista Channel

Potential Source of Imported Water: USG-3 (capacity: 400 cfs) and SGVMWD (Azusa Canyon Turnout – capacity: 55 cfs)

Adjacent Storm Channel: Buena Vista Channel

SAND AND GRAVEL PIT CHARACTERISTICS

Owner	United Rock Products
Status	Inactive
Closure Date	--
Gross Area	100 Acres
Gross Storage Capacity	–
Depth	150 Feet

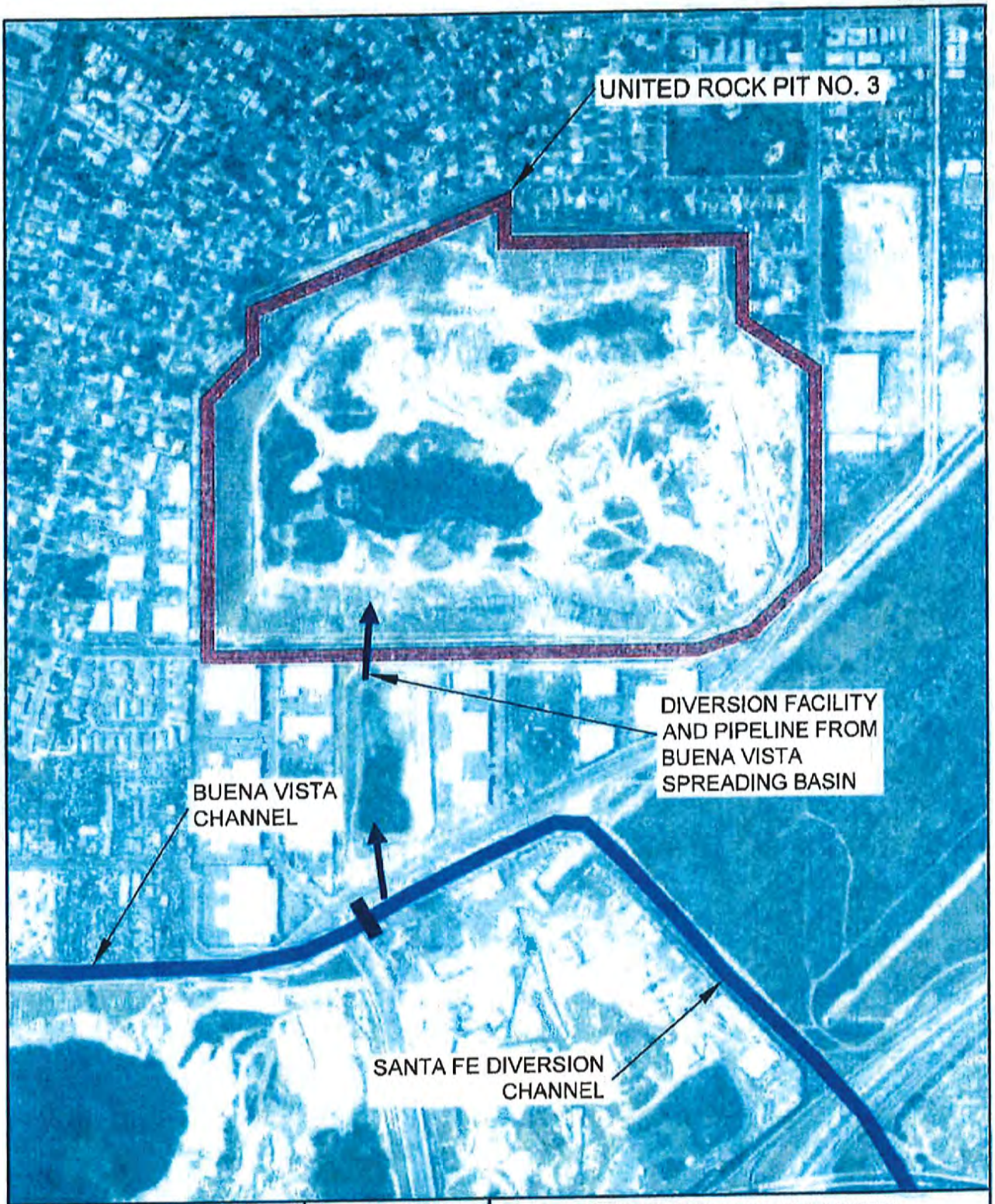
Reclamation Plan:

Completion Year: 2040

United Rock prepared a reclamation plan that stated United Rock Pit No. 3 would be reclaimed for 1) commercial or industrial use or 2) a replenishment facility.

Included in 2009 LACDPW Water Conservation Plan? NO

FIGURE F



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Mesa Arizona 85202

NORTH

APPROX. SCALE:
0 500' 1,000'

MAIN SAN GABRIEL BASIN WATERMASTER
STORMWATER CAPTURE AD HOC COMMITTEE

UNITED ROCK PIT NO. 3
LOCATION F

D:\JOBS\1205\1205-82\DPW data\spreading grounds\FIGURE F.DWG
D:\JOBS\1205-82.CTB

UNITED ROCK PIT NO. 3 – Inactive Sand and Gravel Quarry (Location F) continued

POTENTIAL IMPROVEMENTS

Watermaster Concept:

1. Construct a diversion facility from Buena Vista Spreading Basin to United Rock Pit No. 3. An outlet structure will also be constructed at United Rock Pit No. 3. This concept will allow storm water from the Buena Vista Channel to be captured and allow more water to be conserved in the Main Basin during a storm event. The cost of the project is estimated to be about $3 million.

ESTIMATE OF WATER CONSERVED IN MAIN BASIN:

Gross Amount: Undetermined

"New Water": The estimated "New Water" is about 100 cfs per day or about 200 AF per day. Based on historical operations and review of actual flows during water year 2004-05, flow to ocean occurred on 32 days. Therefore, the total "New Water" is estimated to be about 6,400 AF during water year 2004-05. Since this storm event occurs every five years, the annual recharge of "New Water" is about 1,300 AFY.

SANTA FE DAM SPILLWAY SPREADING BASIN (Location G)

LOCATION OF THE FACILITY: Within the Santa Fe Dam Reservoir and spillway areas

SOURCE OF STORM WATER: San Gabriel Canyon Reservoirs, San Gabriel River below Morris Dam

IMPORTED WATER: USG-3 (capacity – 400 cfs) and SGVMWD (Azusa Canyon Turnout – capacity: 55 cfs)

OWNER AND YEAR OF FIRST OPERATION: DPW / 1953-1954

SPREADING FACILITY CHARACTERISTICS

Basin Type	--
No. of Basins	16
Storage Capacity	--
Intake Capacity	200 CFS
Total Area	--
Wetted Area	--

HISTORICAL MAXIMUM ANNUAL AMOUNT OF WATER CONSERVED: -- AFY

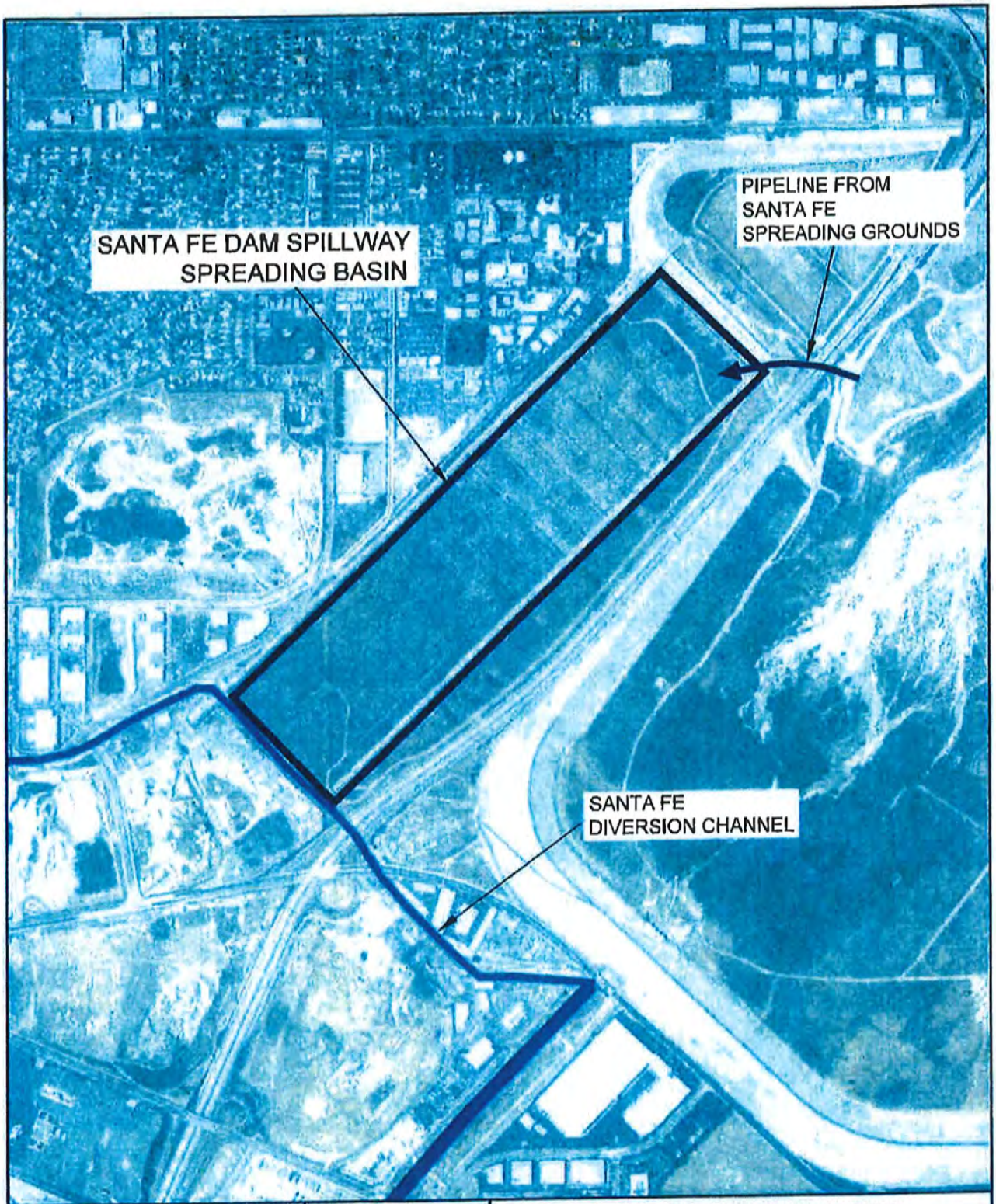
AVERAGE ANNUAL REPLENISHMENT: -- AFY

SPREADING LIMITATIONS

Percolation Rate: -- CFS

Included in 2009 LACDPW Water Conservation Plan? NO

FIGURE G



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NORTH

APPROX. SCALE :
0 500' 1,000'

MAIN SAN GABRIEL BASIN WATERMASTER
STORMWATER CAPTURE AD HOC COMMITTEE

SANTA FE DAM SPILLWAY SPREADING BASIN
LOCATION G

G:\JOBS\1205\1205-82\DPW data\spreading grounds\FIGURE G.DWG
D:\JOBS\1205-82.CTB

SANTA FE DAM SPILLWAY SPREADING BASIN (Location G) continued

POTENTIAL IMPROVEMENTS

Watermaster Concept:

1. An existing pipeline from the Santa Fe Spreading Grounds to the Santa Fe Dam Spillway Spreading Basin allows storm water to be diverted into the Santa Fe Dam Spillway Spreading Basin. The pipeline has a designed capacity of 200 cfs. Watermaster proposes to construct a larger pipe from the Santa Fe Spreading Grounds to the Santa Fe Dam Spillway Spreading Basin to allow more water to be diverted and conserved in the Main Basin. The estimated cost of this project is unknown and needs to be investigated.

ESTIMATE OF WATER CONSERVED IN MAIN BASIN:

Gross Amount: Undetermined

"New Water": Undetermined

MILLER PIT – Inactive Sand and Gravel Quarry (Location H)

Location: Southerly of I-210 Freeway, Westerly of Irwindale Avenue

City: Irwindale

Potential Source of Storm Water: Morris Reservoir

Potential Source of Imported Water: USG-3 (capacity: 400 cfs) and SGVMWD (Azusa Canyon Turnout – capacity: 55 cfs)

Adjacent Storm Channel: San Gabriel River

SAND AND GRAVEL PIT CHARACTERISTICS

Owner	MillerCoors LLC
Status	Inactive
Closure Date	--
Gross Area	50 Acres
Initial Storage Capacity	850 AF
Storage Capacity with Improvements	2,000 AF
Depth	270 Feet

Reclamation Plan:

No reclamation plan required

Completion Year: The Miller Pit is currently closed but has not been reclaimed.

Included in 2009 LACDPW Water Conservation Plan? **NO**

FIGURE H

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NORTH

APPROX. SCALE:
0 500' 1,000'

MAIN SAN GABRIEL BASIN WATERMASTER
STORMWATER CAPTURE AD HOC COMMITTEE

MILLER PIT
LOCATION H

D:\JOBS\1205\1205-82\DPW data\spreading grounds\FIGURE H.DWG
D:\JOBS\1205-82.CTB

MILLER PIT – Inactive Sand and Gravel Quarry (Location H) continued

POTENTIAL IMPROVEMENTS

Watermaster Concept:

1. Construct a pipeline from the existing Santa Fe rubber dam on the east side of the Forebay and divert the water to Miller Pit. An outlet structure would also need to be constructed at Miller Pit. This concept would allow storm water to be captured and conserved in the Main Basin. The cost of this project is estimated to be about $4 million.

ESTIMATE OF WATER CONSERVED IN MAIN BASIN:

Gross Amount: Undetermined

"New Water": The estimated "New Water" is about 100 cfs per day or about 200 AF per day. Based on historical operations and review of actual flows during water year 2004-05, flow to ocean occurred on 55 days of the year. Therefore, the total "New Water" is about 11,000 AF during water year 2004-05. Since this storm event occurs every five years, the annual recharge of "New Water" is about 2,200 AFY.

OLIVE PIT – Inactive Sand and Gravel Quarry (Location I)

Location: Westerly of Azusa Canyon Road, Southerly of Olive Street

City: Irwindale

Potential Source of Storm Water: Big Dalton Dam, Big Dalton Debris Dam, Little Dalton Debris Dam, San Dimas Dam, Puddingstone Dam

Potential Source of Imported Water: SGVMWD (San Dimas Canyon Turnout – capacity: 40 cfs) and CENB-48 (capacity: 300 cfs)

Adjacent Storm Channel: Big Dalton Wash

SAND AND GRAVEL PIT CHARACTERISTICS

Owner	City of Irwindale
Status	Inactive
Closure Date	Prior to 1975
Gross Area	193 Acres
Gross Storage Capacity	--
Depth	--

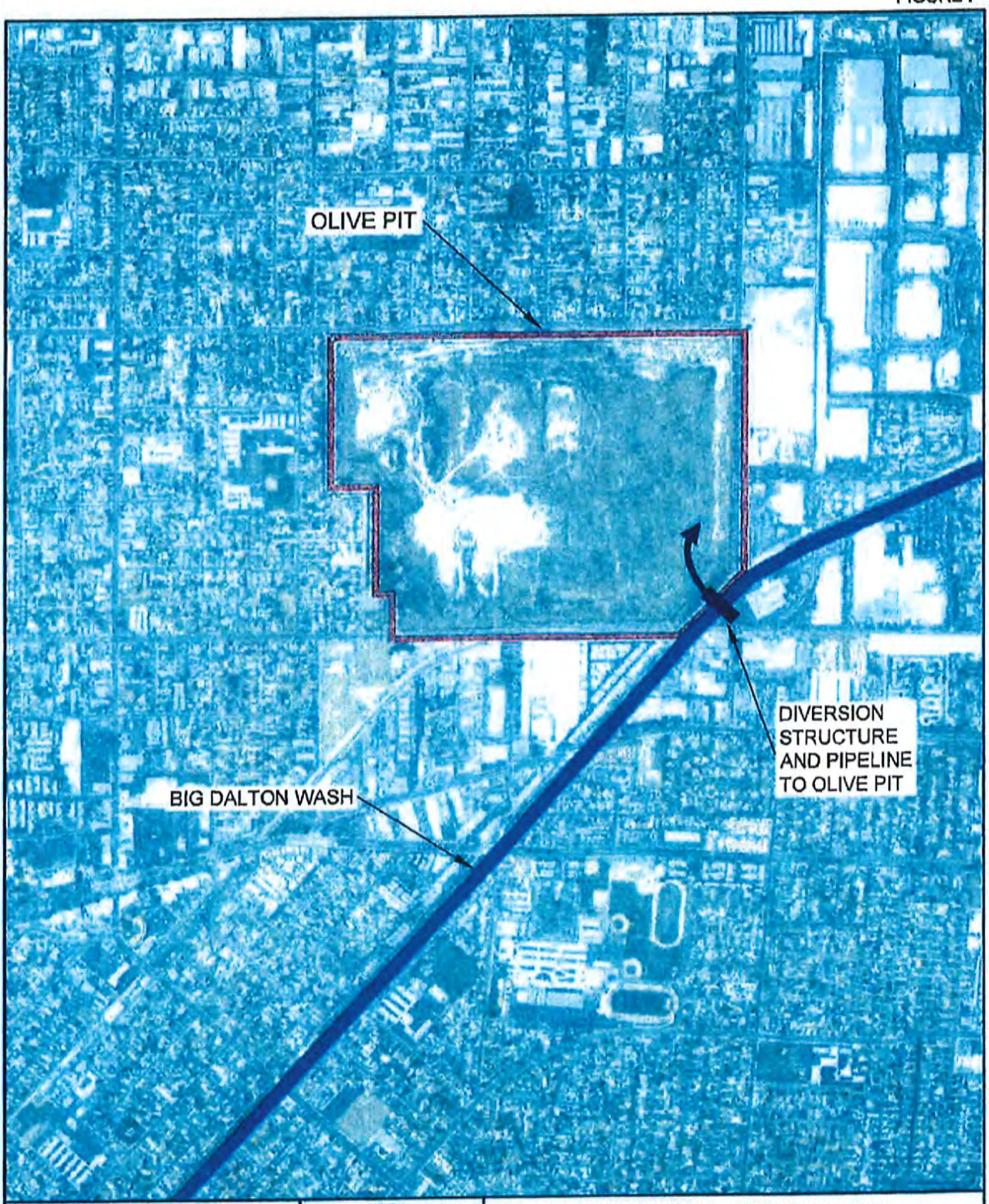
Reclamation Plan:

No reclamation plan required

CalMat and County of Los Angeles Department of Public Works have discussed use of Olive Pit for water conservation / debris disposal. Mining in the Olive Pit ceased prior to 1975. The Surface Mining and Reclamation Act of 1975 first required companies to prepare reclamation plans. Consequently, a reclamation plan is not required.

Included in 2009 LACDPW Water Conservation Plan? **YES**

FIGURE I



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Mesa Arizona 85202

NORTH

APPROX. SCALE:
0 1,000' 2,000'

MAIN SAN GABRIEL BASIN WATERMASTER
STORMWATER CAPTURE AD HOC COMMITTEE

OLIVE PIT
LOCATION I

D:\JOBS\1205\1205-82\DPW data\spreading grounds\FIGURE I.DWG
D:\JOBS\1205-82.CTB

OLIVE PIT – Inactive Sand and Gravel Quarry (Location I) continued

POTENTIAL IMPROVEMENTS

LACDPW Concept:

1. LACDPW proposes to purchase the Olive Pit for use as a water conservation facility, sediment placement site and future recreation area. LACDPW would use the Olive Pit to detain large amounts of storm water for groundwater recharge purposes. LACDPW proposes to construct two basins with a total storage capacity of 1,191 acre-feet. In addition, LACDPW will use the rest of Olive Pit as a sediment placement site and as a recreation area. The estimated construction cost is about $15 to $20 million.

   LACDPW has included this project in their presentation entitled, "Water in Los Angeles County," which can be found in Appendix A.

Watermaster/Upper District Concept:

1. Similar to LACDPW. Initially a portion of Olive Pit will be used as a water conservation facility by diverting storm water from the Big Dalton Wash into Olive Pit. Construct a rubber dam in the Big Dalton Wash, adjacent to Olive Pit. A diversion structure will be constructed at the Big Dalton Wash and connected to a 60-inch pipeline to Olive Pit. An energy dissipation structure will also be constructed at Olive Pit. This concept will allow storm water to be captured from Big Dalton Wash and allowing more water to be conserved in the Main Basin during a storm event. The estimated cost of the project is about $3.5 million. Subsequently, Olive Pit may be more fully developed as described by LACDPW.

OLIVE PIT – Inactive Sand and Gravel Quarry (Location I) continued

ESTIMATE OF WATER CONSERVED IN MAIN BASIN:

Gross Amount: Undetermined

"New Water": The estimated "New Water" is about 500 cfs per day or about 1,000 AF per day. Based on historical operations and review of actual flows during water year 2004-05, flow to ocean occurred on 32 days of the year. Therefore, the total "New Water" is about 32,000 AF during water year 2004-05. Since this storm event occurs every five years, the annual recharge of "New Water" is about 6,400 AFY.

WALNUT CREEK SPREADING BASIN (Location J)

LOCATION OF THE FACILITY: Adjacent to Walnut Creek, west of Grand Avenue and north of 10 Freeway

SOURCE OF STORM WATER: Puddingstone Reservoir and Walnut Creek

IMPORTED WATER: USG-3 (capacity – 400 cfs) and SGVMWD (San Dimas Canyon Turnout – capacity: 40 cfs)

OWNER AND YEAR OF FIRST OPERATION: DPW / 1962-1963

SPREADING FACILITY CHARACTERISTICS

Basin Type	Deep
No. of Basins	1
Storage Capacity	170 AF
Intake Capacity	150 CFS
Total Area	16 Acres
Wetted Area	8.0 Acres

HISTORICAL MAXIMUM ANNUAL AMOUNT OF WATER CONSERVED: 3,261 AFY (2004-05)

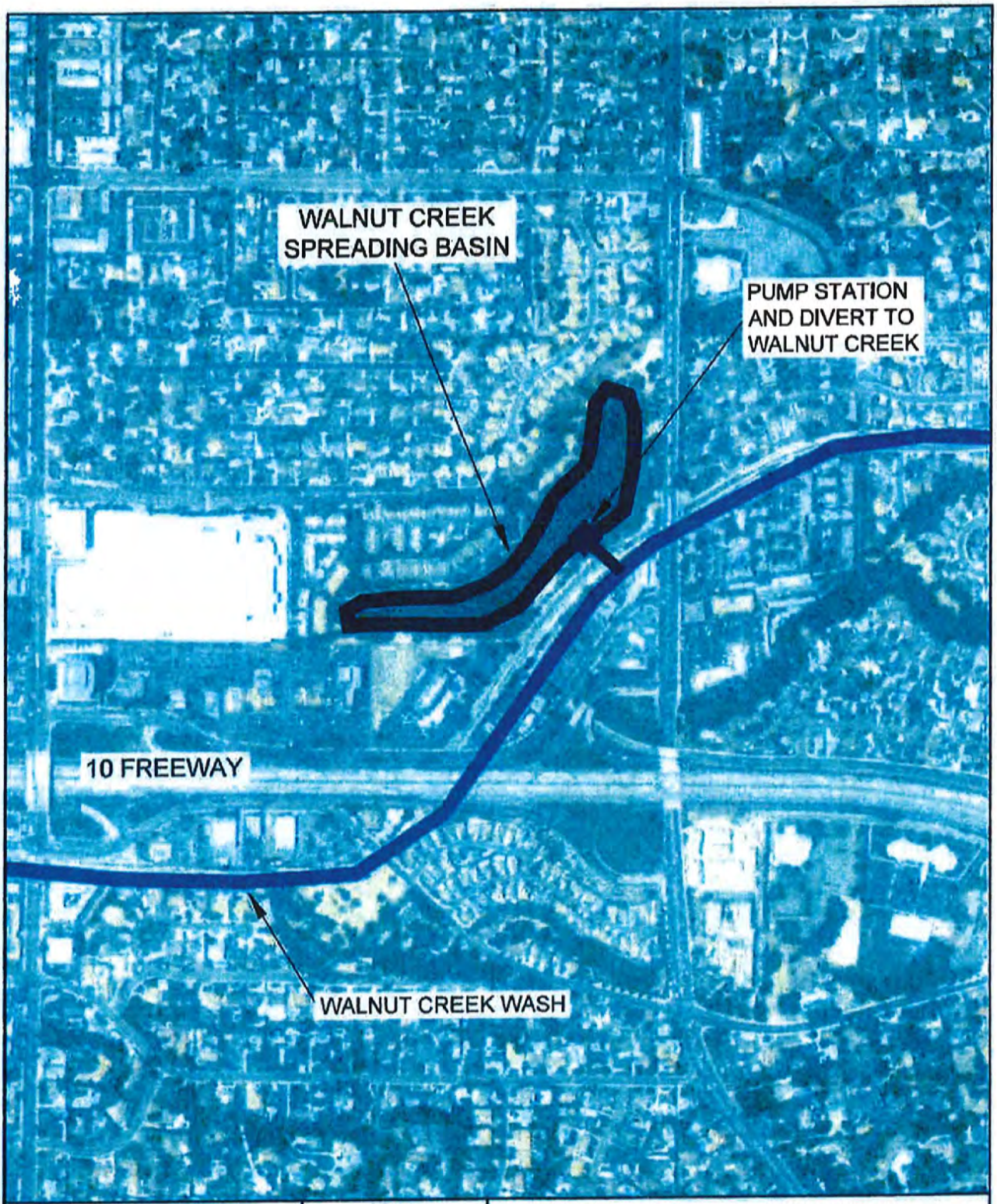
AVERAGE ANNUAL REPLENISHMENT: 1,378 AFY

SPREADING LIMITATIONS

Percolation Rate from LACDPW concept report:	2 CFS
Short Term (5 days) from PERC III:	5 CFS
Long Term from PERC III:	5 CFS

Included in 2009 LACDPW Water Conservation Plan? YES

FIGURE J



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Mesa Arizona 85202

NORTH

APPROX. SCALE:
0 500' 1,000'

MAIN SAN GABRIEL BASIN WATERMASTER
STORMWATER CAPTURE AD HOC COMMITTEE

WALNUT CREEK SPREADING BASIN
LOCATION J

D:\JOBS\1205\1205-82\DPW data\spreading grounds\FIGURE J.DWG
D:\JOBS\1205-82.CTB

WALNUT CREEK SPREADING BASIN (Location J) continued

POTENTIAL IMPROVEMENTS

LACDPW Concepts:

1. Cleanout Walnut Creek Spreading Basin to help restore the percolation rate. The current percolation rate tests showed a percolation of 2 cfs. Historically the basin had a percolation rate as high as 8 cfs. The improvement project will consist of hauling sediment from Walnut Creek Spreading Basin to the Manning Pit Sediment Placement Site and dewatering the basin.
    a. Alternative 1: Install a dewatering pump station in the basin. The pump station will contain a 5 cfs pump. Installing the dewatering pump would allow complete dewatering of the basin in approximately 20 days. In addition, the project proposes to replace the existing gage boards and supplement the gage boards with a data logger and pressure transducer. The cost to construct this project is about $1.2 million. The electricity cost to operate the pump for basin dewatering is approximately $1,600 per dewatering operation.
    b. Alternative 2: Install a higher volume pump which will allow for water to be sent downstream to a better percolation facility. The pump station will contain a 20 cfs pump. Installing the dewatering pump would allow complete dewatering of the basin in approximately 5 days. In addition, the project proposes to replace the existing gage boards and supplement the gage boards with a data logger and pressure transducer. The cost to construct this project is about $1.2 million. The pump used in this alternative utilizes a diesel engine to power the pump and can have varying costs for operation.

LACDPW has included this project in their presentation entitled, "Water in Los Angeles County," which can be found in Appendix A.

Watermaster Concepts:

1. The Walnut Creek Spreading Basin has a storage capacity of 170 AF. The first storm of the year would be diverted to the Walnut Creek Spreading Basin to help capture trash. As a complimentary activity to that proposed by LACDPW, Watermaster staff proposes to also construct a pump station at the Walnut Creek Spreading Basin and pump the water into Walnut Creek. The water will eventually percolate in the unlined portion of Walnut Creek and/or behind the rubber dam on the San Gabriel River, which has a long-term percolation rate of about 10 to 15 cfs. The cost of the pump station is unknown and needs to be investigated. Potential cost is about $500,000 based on LACDPW concept above.

WALNUT CREEK SPREADING BASIN (Location J) continued

ESTIMATE OF WATER CONSERVED IN MAIN BASIN:

Gross Amount: Undetermined (Estimate of about 150 AF per storm)

New Water": Assumes about 150 AF per storm event. Based on the average of the last three years, a storm event occurs ten times per year. Therefore, the estimated "New Water" is about 1,500 AFY.

SAN GABRIEL CANYON SPREADING BASIN (Location K)

LOCATION OF THE FACILITY: Easterly side of the San Gabriel River. Below the mouth of San Gabriel Canyon. North of the City of Azusa.

SOURCE OF STORM WATER: San Gabriel River controlled releases from Cogswell Reservoir, San Gabriel Reservoir and Morris Reservoir

IMPORTED WATER: USG-3 (capacity – 400 cfs) and SGVMWD (Azusa Canyon Turnout – capacity: 55 cfs)

OWNER AND YEAR OF FIRST OPERATION: DPW / 1917

SPREADING FACILITY CHARACTERISTICS

Basin Type	Deep
No. of Basins	2
Storage Capacity	8,170 AF
Intake Capacity	150 CFS
Total Area	165 Acres
Wetted Area	140.0 Acres

HISTORICAL MAXIMUM ANNUAL AMOUNT OF WATER CONSERVED: 33,577 AFY (2002-03)

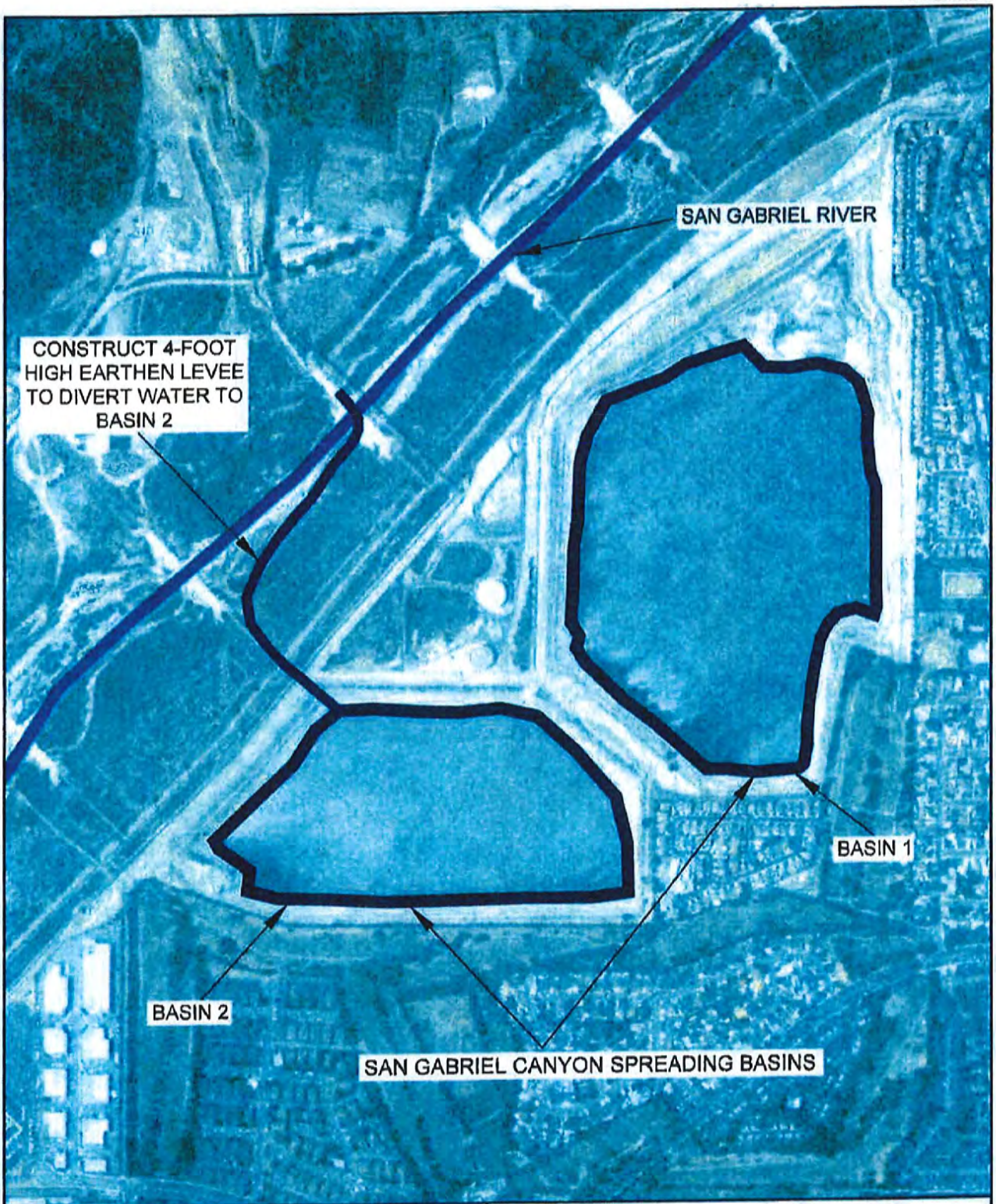
AVERAGE ANNUAL REPLENISHMENT: 14,545 AFY

SPREADING LIMITATIONS

Percolation Rate from LACDPW:	50 CFS
Short Term (5 days) from PERC II:	50 CFS
Long Term from PERC II:	30 CFS

Included in 2009 LACDPW Water Conservation Plan? YES

FIGURE K



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Mesa Arizona 85202

NORTH
APPROX. SCALE :
0 800' 1,200'

MAIN SAN GABRIEL BASIN WATERMASTER
STORMWATER CAPTURE AD HOC COMMITTEE

SAN GABRIEL CANYON SPREADING BASINS
LOCATION K

D:\JOBS\1205\1205-82\DPW data\spreading grounds\FIGURE K.DWG
D:\JOBS\1205-82.CTB

SAN GABRIEL CANYON SPREADING BASIN (Location K) continued

POTENTIAL IMPROVEMENTS

LACDPW Concepts:

1. LACDPW proposes to increase capacity of the main intake and the Basin 2 intake. The improvements to the main intake will increase the capacity from 40 cfs to 70 cfs by extending the intake's gunite lining. The estimated cost of the main intake improvements is about $70,300.

   The intake to Basin 2 currently captures approximately 10 percent of the water available to the San Gabriel River. It is proposed that a 4-foot-high earthen levee be constructed in the San Gabriel River to divert flows to the intake to Basin 2. This would allow flows up to 500 cfs to be diverted to the intake. Higher flows would wash out the levee and bypass the system. A long-term maintenance permit would be needed to keep these improvements functional after the levee is washed out. Cost for this upgrade is estimated to be about $350,000.

   LACDPW has included this project in their presentation entitled, "Water in Los Angeles County," which can be found in Appendix A.

ESTIMATE OF WATER CONSERVED IN MAIN BASIN:

Gross Amount: Undetermined

"New Water": None

LITTLE DALTON SPREADING GROUNDS (Location L)

LOCATION OF THE FACILITY: Downstream of the Little Dalton Debris Basin near the intersection of Glendora Mountain Road and Big Dalton Canyon Road

SOURCE OF STORM WATER: Little Dalton Debris Basin

IMPORTED WATER: PM-26 (capacity – 20 cfs)

OWNER AND YEAR OF FIRST OPERATION: DPW / 1931-1932

SPREADING FACILITY CHARACTERISTICS

Basin Type	Shallow
No. of Basins	13
Storage Capacity	5 AF
Intake Capacity	20 CFS
Total Area	14 Acres
Wetted Area	5.0 Acres

HISTORICAL MAXIMUM ANNUAL AMOUNT OF WATER CONSERVED: 5,546 AFY (1995-96)

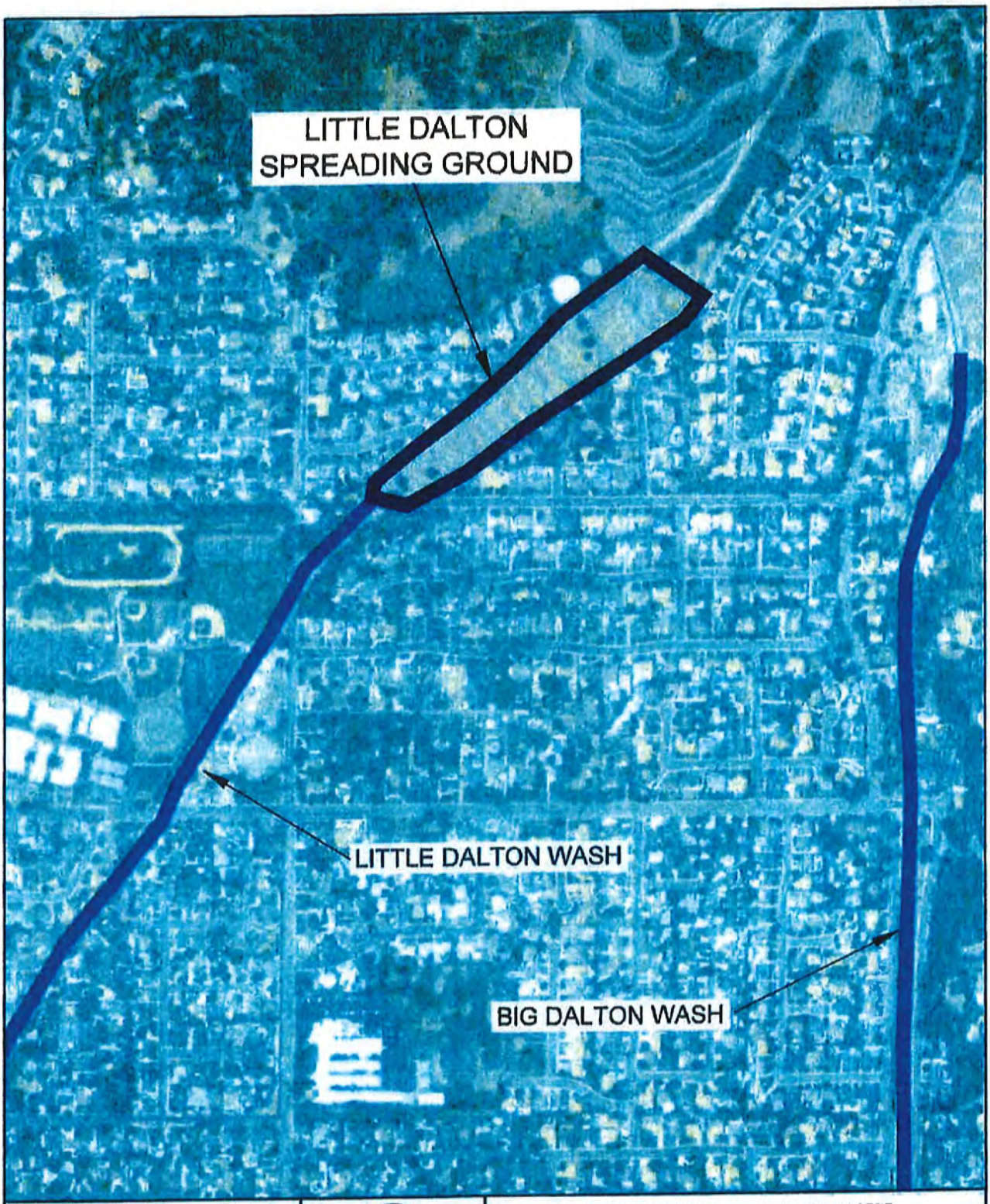
AVERAGE ANNUAL REPLENISHMENT: 567 AFY

SPREADING LIMITATIONS

Percolation Rate from LACDPW:	15 CFS
Short Term (5 days) from PERC III:	15 CFS
Long Term from PERC III:	10 CFS

Included in 2009 LACDPW Water Conservation Plan? YES

FIGURE L



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Mesa Arizona 85202

NORTH

APPROX. SCALE :
0 500' 1,000'

MAIN SAN GABRIEL BASIN WATERMASTER
STORMWATER CAPTURE AD HOC COMMITTEE

LITTLE DALTON SPREADING GROUND
LOCATION L

D:\JOBS\1205\1205-82\DPW data\spreading grounds\FIGURE L.DWG
D:\JOBS\1205-82.CTB

LITTLE DALTON SPREADING GROUNDS (Location L) continued

POTENTIAL IMPROVEMENTS

LACDPW Concepts:

1. LACDPW proposes increasing the height of the spillways at Basins No. 1, 2, 5, 7 and 11 to add storage capacity to the Little Dalton Spreading Grounds. Regular operation of the Little Dalton Spreading Grounds has eroded the spillways resulting in decreased total storage capacity to about 4.7 acre-feet. LACDPW proposes to increase the height of the spillway resulting in the total storage capacity to about 7.0 acre-feet. The increased storage capacity will allow more water to be conserved in the Main Basin. The estimated cost for this project is about $66,000.

   LACDPW has included this project in their presentation entitled, "Water in Los Angeles County," which can be found in Appendix A.

ESTIMATE OF WATER CONSERVED IN MAIN BASIN:

Gross Amount: Undetermined

"New Water": Undetermined

BIG DALTON SPREADING GROUNDS (Location M)

LOCATION OF THE FACILITY: West side of Big Dalton Wash, less than a mile above Sierra Madre Ave.

SOURCE OF STORM WATER: Big Dalton Dam, Big Dalton Debris Basin

IMPORTED WATER: Potentially PM-26 (capacity – 20 cfs)

OWNER AND YEAR OF FIRST OPERATION: DPW / 1930-1931

SPREADING FACILITY CHARACTERISTICS

Basin Type	Shallow
No. of Basins	9
Storage Capacity	12 AF
Intake Capacity	45 CFS
Total Area	24 Acres
Wetted Area	8.0 Acres

HISTORICAL MAXIMUM ANNUAL AMOUNT OF WATER CONSERVED: 3,766 AFY (1966-67)

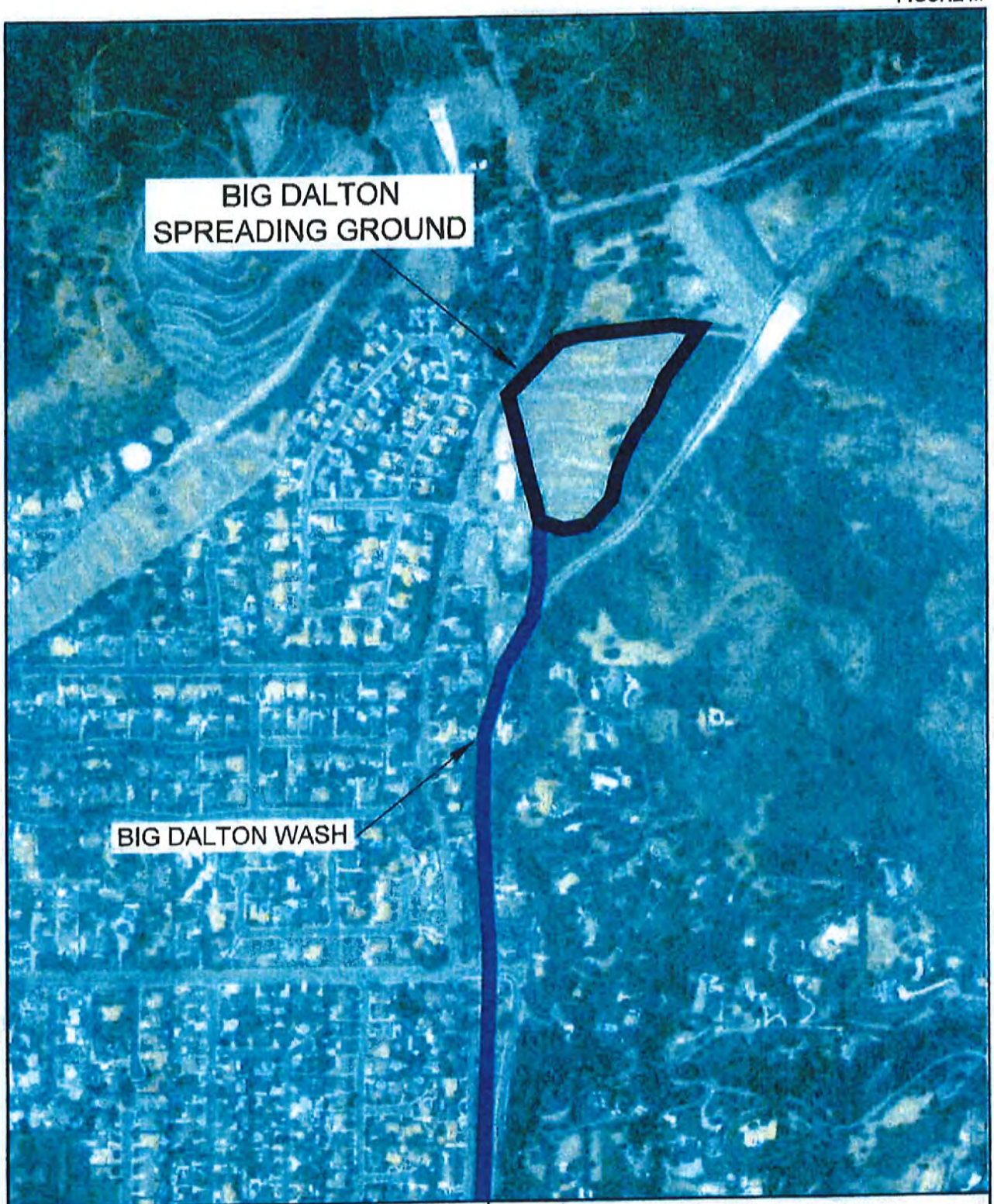
AVERAGE ANNUAL REPLENISHMENT: 636 AFY

SPREADING LIMITATIONS

Percolation Rate from LACDPW:	12 CFS
Short Term (5 days) from PERC III:	12 CFS
Long Term from PERC III:	8 CFS

Included in 2009 LACDPW Water Conservation Plan? YES

FIGURE M



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Mesa Arizona 85202

NORTH

APPROX. SCALE :
0 500' 1,000'

MAIN SAN GABRIEL BASIN WATERMASTER
STORMWATER CAPTURE AD HOC COMMITTEE

BIG DALTON SPREADING GROUND
LOCATION M

D:\JOBS\1205\1205-82\DPW data\spreading grounds\FIGURE M.DWG
D:\JOBS\1205-82.CTB

BIG DALTON SPREADING GROUNDS (Location M) continued

POTENTIAL IMPROVEMENTS

LACDPW Concepts:

1. Alternative 1: LACDPW proposes to modify Basins No. 1, 2, 3, 4, 5, 6, 7, and 8 into a desilting basin, Basins No. 1, 2 and 3. LACDPW will remove the existing interbasin connection between the old basins and construct a new interbasin connecting structure between the proposed basins. In addition, LACDPW will install a rubber dam on Little Dalton Wash and install an outlet structure in order to divert the water into the proposed Basin No. 1. In addition, LACDPW will modify the turnout structure at the intake channel by the Big Dalton Wash. Cost of the project is about $2.1 million.
2. Alternative 2: LACDPW proposes to modify Basins No. 1, 2, 3, 4, 5, 6, 7, and 8 into a desilting basin, Basins No. 1, 2, 3, 4, 5 and 6. LACDPW will remove the existing interbasin connection between the old basins and construct a new interbasin connecting structure between the proposed basins. In addition, LACDPW will install a rubber dam on Little Dalton Wash and install an outlet structure in order to divert the water into the proposed Basin No. 2. In addition, LACDPW will modify the turnout structure at the intake channel by the Big Dalton Wash. Cost of the project is about $2.1 million.

   LACDPW has included this project in their presentation entitled, "Water in Los Angeles County," which can be found in Appendix A.

ESTIMATE OF WATER CONSERVED IN MAIN BASIN:

Gross Amount: Undetermined

"New Water": LACDPW estimates "New Water" to be about 500 AFY.

EATON SPREADING BASIN (Location N)

LOCATION OF THE FACILITY: East side of Eaton Wash, north of Duarte Road

SOURCE OF WATER: Eaton Dam and Eaton Wash

IMPORTED WATER: None

OWNER AND YEAR OF FIRST OPERATION: DPW / 1956-57

SPREADING FACILITY CHARACTERISTICS

Basin Type	Deep
No. of Basins	1
Storage Capacity	284 AF
Intake Capacity	400 CFS
Total Area	16 Acres
Wetted Area	10 Acres

HISTORIC MAXIMUM ANNUAL AMOUNT OF WATER CONSERVED: 3,481 AFY (1982-83)

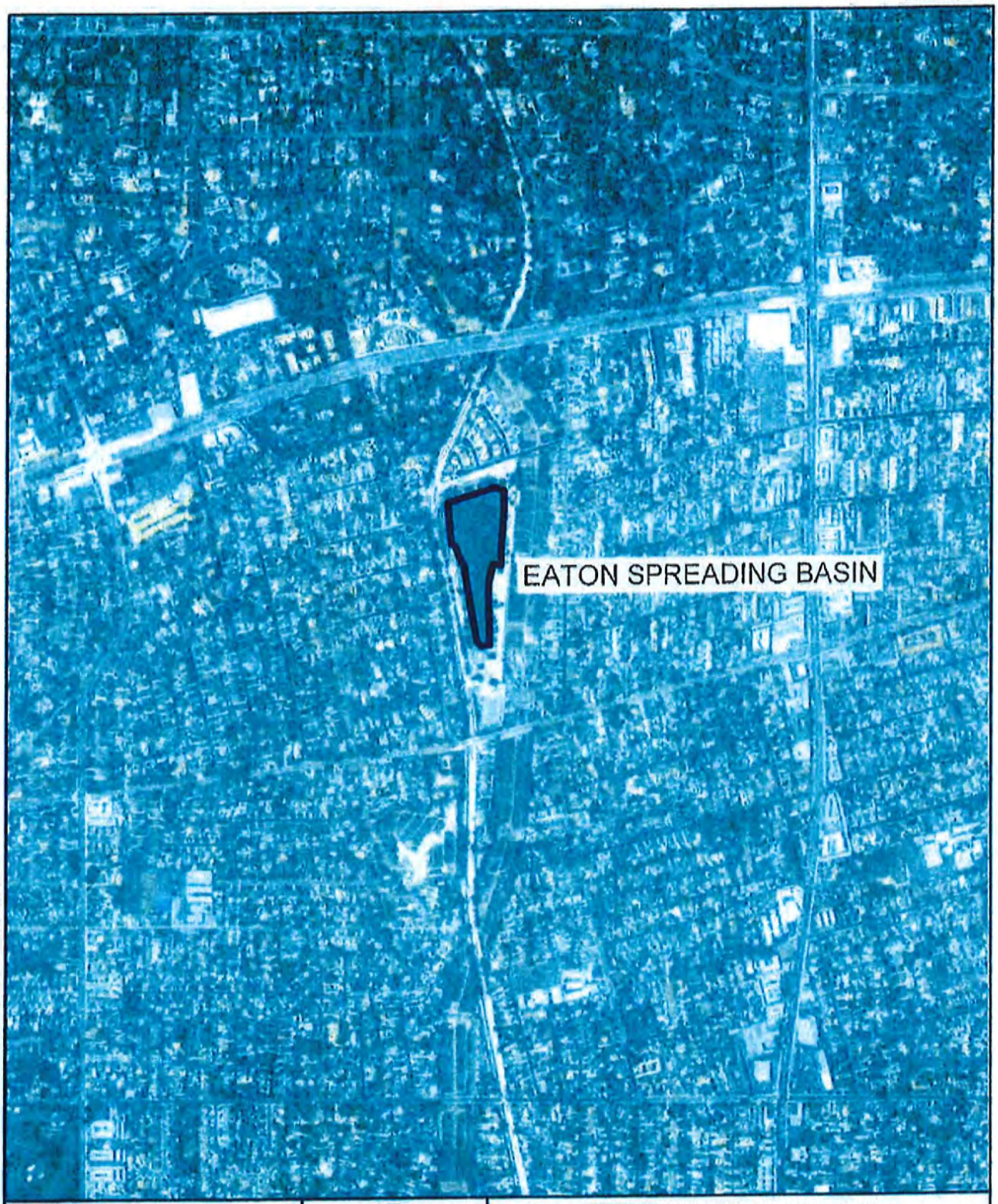
AVERAGE ANNUAL REPLENISHMENT: 1,078 AFY

SPREADING LIMITATIONS

Percolation Rate from LACDPW:	3-5 CFS
Short Term (5 days) from PERC II:	10 CFS
Long Term from PERC II:	5 CFS

Included in 2009 LACDPW Water Conservation Plan? YES

FIGURE N



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Mesa, Arizona 85202

NORTH

APPROX. SCALE:
0 500' 1,000'

MAIN SAN GABRIEL BASIN WATERMASTER
STORMWATER CAPTURE AD HOC COMMITTEE

EATON SPREADING BASIN
LOCATION N

D:\JOBS\1205\1205-82\DPW data\spreading grounds\FIGURE N.DWG
D:\JOBS\1205-82.CTB

EATON SPREADING BASIN (Location N) continued

POTENTIAL IMPROVEMENTS

LACDPW Concepts:

2. LACDPW proposes to clean out the basin to optimize percolation rates, enhance habitat, and provide passive recreation. LACDPW did a percolation test and found the percolation to be about 3 to 5 cfs at the Eaton Spreading Basin. LACDPW proposes to clean the basin to increase the basin's percolation rate to 10 cfs. The preliminary construction cost estimate is about $1 to $1.5 million.

   LACDPW has included this project in their presentation entitled, "Water in Los Angeles County," which can be found in Appendix A.

ESTIMATE OF WATER CONSERVED IN MAIN BASIN:

Gross Amount: Undetermined

"New Water": The estimated "New Water" is about 300 AFY.

APPENDIX A
LACDPW Conservation Plan
(prepared in 2009)

TABLE 3
MEASURED GROUNDWATER ELEVATIONS AT SELECTED WELLS IN THE VICINITY OF THE PROPOSED NEW IRWINDALE PARTNERS WELL
JULY 2016

WELL NAME	RECORDATION NUMBER	LACDPW NUMBER	MEASURING DATE	DEPTH TO WATER (FEET)	RP ELEVATION (FEET MSL)	GROUNDWATER ELEVATION (FEET MSL)
ARCADIA, CITY OF						
LON 2	1901014	4198G	28-Jul-16	195.84	362.82	166.98
CALIFORNIA AMERICAN WATER COMPANY/DUARTE						
B V	1900355	4227A	11-Jul-16	279.78	450.86	171.08
LOS ANGELES, COUNTY OF						
USGVMWD-1	NA	NA	13-Jul-16	253.94	425.90	171.96
USGVMWD-2	NA	NA	13-Jul-16	234.26	405.39	171.13
USGVMWD-3	NA	NA	13-Jul-16	193.95	365.26	171.31
MONROVIA, CITY OF						
03	1900419	4198K	27-Jul-16	201.58	371.62	170.04
05	1940104	NA	27-Jul-16	203.15	374.27	171.12

WATER LEVEL MEASUREMENTS WERE MADE USING A NORTHWEST INSTRUMENTATION'S ELECTRONIC SOUNDER WITH THE SMALLEST DIVISION OF 0.02 FEET

APPENDIX D

THREE-YEAR PURCHASE PLAN

MAIN SAN GABRIEL BASIN WATERMASTER

JUDGMENT, EXHIBIT H(3)(d), "THREE-YEAR PURCHASED WATER PLAN" (FY 2016-17 TO FY 2018-19)

September 2016

TABLE OF CONTENTS

BACKGROUND

On June 21, 2012, the Superior Court of the State of California for the County of Los Angeles (Court) approved certain proposed Judgment amendments. These Judgment amendments help Watermaster address Supplemental Water supply concerns. One of the amendments, Exhibit H(3)(d), requires that "...on or before November 1 of each year, Watermaster shall prepare and distribute to the Responsible Agencies a three-year projection of its supplemental water purchases from each agency. Watermaster shall, to the extent feasible, coordinate the tentative schedule for delivery and payment of those purchases with each agency." Some of the considerations included in the Three-Year projection of Supplemental Water purchases are included below.

Judgment Amendment, Section 45(b)(7), allows Watermaster to "...levy an Assessment on all Pumping, as determined through Rules and Regulations ... to support the purchase, financing, and/or development of new or additional Supplemental Water sources, in cooperation with one or more Responsible Agencies as appropriate." Section 45(b)(7) established the "Water Resource Development Assessment" for the purchase or development of additional Supplemental Water supplies. Based on these Judgment amendments, Watermaster also amended its Rules and Regulations to include a policy/criteria to develop the "Three-Year Purchased Water Plan" (Three-Year Plan). Under Section 26(d)(5) of the Rules and Regulations, the first priority for spreading of Supplemental Water is "...Supplemental Water ordered by Watermaster from Responsible Agencies for direct delivery to the Basin as Replacement Water..."

Following the end of each fiscal year (June 30th), Watermaster receives production data from Basin Producers and calculates the final Replacement Water obligation based on the prior fiscal year's over-production. Watermaster adopted Resolution No. 05-16-278 on May 11, 2016, which provides Producers an economic incentive to pre-purchase and deliver Supplemental Water into their

Cyclic Storage accounts in advance of paying a potentially higher Replacement Water Assessment (see Attachment A). In accordance with its Rules and Regulations, Watermaster provides a Statement of Assessments (including any Replacement Water Assessment) to each Producer by August 15th and all Assessments are due to Watermaster by September 20th.

For this Three-Year Plan, Figure 1 shows the process and chronology for the purchase of Supplemental Water. Figure 1 shows the Supplemental Water requirement incurred from the prior fiscal year (starting with fiscal year 2015-16), when Assessments are due, and when Supplemental Water is anticipated to be delivered for the next three years. After September 20th of each year, as shown in Figure 1, Watermaster has collected necessary funds to pay for the purchase of required Supplemental Water to be delivered to the Basin. As an example, following the end of fiscal year 2015-16 the total Basin Replacement Water requirement to be delivered during fiscal year 2016-17, was about 14,000 acre-feet (does not include 3,000 acre-feet through USG-5) and includes about 9,600 acre-feet which was not delivered in the prior year. Watermaster receives Replacement Water Assessments from Producers on or before September 20, 2016 and coordinates with the Responsible Agencies for the purchase and delivery of Supplemental Water, which includes the Replacement Water requirement, Producer Cyclic Storage and deliveries for the Supplemental Water Storage Reliability Program, as shown in Figure 1.

Policy/Criteria for Three-year Purchased Water Plan

Exhibit M of Watermaster's amended Rules and Regulations provides the policy/criteria for the "Three-year Purchased Water Plan," and requires Watermaster to estimate Supplemental Water purchases from the Responsible Agencies for each of the three subsequent years. The policy/criteria indicate estimated Supplemental Water purchases may be based on the following:

1) *The first year shall be, at a minimum, the total Replacement Water requirement for the three Responsible Agencies (Upper San Gabriel Valley Municipal Water District (Upper District), San Gabriel Valley Municipal Water District (San Gabriel District), and Three Valleys Municipal Water District (Three Valleys).*
2) *The second and third years may be estimated as follows:*
   a) *Operating Safe Yield (OSY) established by Watermaster for the current fiscal year and next succeeding years;*
   b) *Alternative projections of the OSY;*
   c) *Evaluation of potential wet, average, and dry hydrologic conditions;*
   d) *Future groundwater production provided by or estimated for each producer; and*
   e) *Depending on Basin conditions, Watermaster may consider additional factors as necessary.*

Watermaster has followed the policy/criteria from Exhibit M of the Rules and Regulations to develop this Three-year Purchased Water Plan for fiscal years 2016-17 through 2018-19. In addition, Watermaster has considered the new Supplemental Water Reliability Storage Program and the In-Lieu Program in this Three-Year Water Purchase Plan, as described below.

SUPPLEMENTAL WATER RELIABILITY STORAGE PROGRAM

The Supplemental Water Reliability Storage Program provides a process for the Watermaster to generate funds to purchase and store Supplemental Water in the Basin to be used (applied) when there are limitations on the availability of Supplemental Water from the Responsible Agencies. Without this Program, limitations on the availability of Supplemental Water for replenishment often occur during dry periods when the Basin groundwater levels are already low, and the impacts can be significant.

The long-term Basin-wide Supplemental Water requirement for the Main Basin has averaged about 40,000 acre-feet per year. Watermaster has developed a Supplemental Water Reliability Storage Program. Resolution No. 05-14-263 states, "...over a ten-year period Main San Gabriel Basin Watermaster intends to purchase and store 100,000 acre-feet of Supplemental Water in the Basin..." Over the ten-year period, the Water Resource Development Assessment (RDA) delivery will be divided between the three Responsible Agencies based on historical production in the Main Basin. Of the total Main Basin historical production, Upper District producers produced about 81 percent of the total production, San Gabriel District producers produced about 13 percent of the total production and Three Valleys District producers produced about 6 percent of the total production. This historical percentage is used to allocate RDA deliveries to each of the Responsible Agencies and remains unchanged each year. It is anticipated, there will be an RDA delivery of 6,900 acre-feet per year for this Three-Year Plan (RDA based on FY 15-16 deliveries). Based on the percentage breakdown, Upper District will deliver about 5,600 (6,900 x 81%) acre-feet of RDA, San Gabriel District will deliver about 900 (6,900 x 13%) acre-feet of RDA, and Three Valleys District will deliver about 400 (6,900 x 6%) acre-feet of RDA. Watermaster will collect the RDA from Producers and purchase the RDA water when Supplemental Water is available.

Deliveries under the Supplemental Water Reliability Storage Program are based on fiscal year 2015-16 production of about 185,000 acre-feet, assessments for that production will be levied in August 2016 and received by Watermaster by September 20, 2016, as shown in Figure 1. Other Supplemental Water purchases will include treated imported water delivered directly to producers, replenishment water for Producer Cyclic Storage and replenishment water for Replacement Water. Regardless of whether these purchases are more or less than 40,000 acre-feet in any given year after fiscal year 2015-16, Watermaster may use the RDA fund to purchase additional Supplemental Water for the Supplemental Water Reliability Storage Program, which will be placed into

a Watermaster storage account to be used when Supplemental Water supplies are otherwise not available to Watermaster from Responsible Agencies (policies for application of Watermaster's stored water are being developed). Potential deliveries of Supplemental Water, based on RDA revenue, for the Supplemental Water Reliability Storage Program will commence in the first year (fiscal year 2016-17) of this Three-year Purchased Water Plan.

AVAILABILITY OF SUPPLEMENTAL WATER DURING FISCAL YEAR 2015-16

During calendar year 2015, the amount of SWP water available for groundwater replenishment was limited as a result of recent hydrologic conditions and other reasons. On March 2, 2015, the Department of Water Resources (DWR) established the calendar year 2015 Allocation of SWP water at 20 percent of the SWP contractors' Table A Entitlements. As the result of substantial precipitation in Northern California, DWR established the calendar year 2016 Allocation of SWP water at 60 percent.

FACTORS CONSIDERED FOR THIS THREE-YEAR PURCHASE PLAN

Governor's Executive Order - Conservation

The Governor's Executive Order, dated April 1, 2015, required the State of California to reduce its collective water demand by 25 percent, compared to the amount of water used in 2013. For fiscal year 2015-16, total Basin production was about 185,000 acre-feet, about 24 percent less than fiscal year 2012-13 (about 242,900 acre-feet).

On May 9, 2016, the Governor issued Executive Order B-37-16, which requires "...California to move beyond temporary emergency drought measures and adopt permanent changes to use water more wisely and to prepare for more

frequent and persistent periods of limited water supply; and...increasing long-term water conservation..." In addition, "State Water Resources Control Board shall, as soon as practicable, adjust emergency water conservation regulations through the end of January 2017..."

SWRCB Self-Certification

On May 18, 2016, the State Water Resources Control Board (SWRCB) adopted a statewide water conservation approach that replaces the prior percentage-based water conservation standard with a "stress test" approach that mandates urban water suppliers act now to ensure at least a three-year supply of water to their customers under drought conditions. The adopted regulation will be in effect through January 2017. Local water agencies are required to ensure a three-year supply assuming three more dry years similar to 2013 through 2015. Water agencies that may face water supply shortages under three additional dry years are required to establish a conservation standard equal to the amount of the water supply shortage.

On June 15, 2016, Metropolitan Water District of Southern California (MWD) self-certified at 0 percent reduction. Consequently, MWD does not anticipate it will experience a water supply shortage during the next three calendar years (2017, 2018 and 2019), and will be able to supply adequate water to its member agencies including Upper District and Three Valleys District. This Three-Year Plan assumes, during the next three years, there will be sufficient water for MWD to deliver to Upper District and Three Valleys District without implementing any water shortage allocations.

Projected Operating Safe Yield and Production

The OSY, production in the Main Basin and the delivery of Supplemental Water are factors impacting the groundwater elevation at the Baldwin Park Key

Well (Key Well). Projecting the groundwater elevation at the Key Well for the next three fiscal years helps provide an understanding of the need for Supplemental Water. The groundwater elevation at the Key Well has been projected for the next three fiscal years (2016-17, 2017-18 and 2018-19), as shown in Figure 2. For the next three fiscal years, it is assumed the OSY is 150,000 acre-feet, 130,000 acre-feet and 130,000 acre-feet (and production is about 185,000 acre-feet, consistent with fiscal year 2015-16 production). In addition, the Key Well projections assume dry years for the next three years, with similar hydrologies to fiscal years 2012-13, 2013-14 and 2014-15. As shown in Figure 2, by the end of fiscal year 2018-19, the groundwater elevation at the Baldwin Park Key Well is projected to be at about 162 feet.

In-Lieu Program

For this Three-Year Plan, it is assumed Watermaster will not implement a program to have Producers purchase additional treated imported water for direct delivery in-lieu of pumping groundwater, in an effort to reduce the amount of groundwater pumped from the Basin. This is because MWD had indicated there will be no shortages of water supply for the next three years, and it is more cost effective to deliver MWD water as replenishment water than as direct delivery.

Water Supply Allocation Plan Allocation

Due to MWD self-certifying at 0 percent, and MWD's declaration that it has water supplies to meet member agency demands for the next three years, it is assumed there will be no Water Supply Allocation Plan allocation for the next three fiscal years (2016-17, 2017-18 and 2018-19).

San Gabriel District's Allocation

The SWP's annual Allocation to its SWP contractors have been highly variable, and this trend is expected to continue. The San Gabriel District has indicated it expects to receive a 60 percent SWP Allocation. Therefore, for San Gabriel District a 60 percent SWP Allocation is used for this Three-Year Plan.

THREE-YEAR PURCHASE PLAN

First Year – Fiscal Year 2016-17

Total Basin untreated imported water anticipated to be delivered during fiscal year 2016-17 is about 50,000 acre-feet which consists of 17,100 acre-feet of Replacement Water to be delivered following the end of fiscal year 2015-16 (includes 3,000 acre-feet through USG-5), 21,000 acre-feet of Supplemental Water into Producer Cyclic Storage, 5,000 acre-feet San Gabriel District owes to MWD and 6,900 acre-feet for RDA.

Upper District has an obligation to deliver 29,600 acre-feet consisting of 3,000 acre-feet deliveries through USG-5 for the Cooperative Water Exchange Agreement, 21,000 acre-feet of Producer Cyclic storage deliveries, and 5,600 acre-feet of RDA. It is assumed 21,600 acre-feet will be wet deliveries through USG-3 and 5,000 acre-feet will be from Cyclic Storage as the result of a transfer from MWD. Consequently, at the end of fiscal year 2016-17, Upper District will have no Replacement Water Obligation and Watermaster will have an additional 5,600 ace-feet in RDA storage.

Three Valleys District has an obligation to deliver 500 acre-feet which consists of 100 acre-feet of Replacement Water to be delivered in fiscal year 2016-17 and 400 acre-feet of RDA. It is assumed Three Valleys will deliver its full obligation. Consequently, at the end of fiscal year 2016-17, Three Valleys

District will have no Replacement Water obligation and Watermaster will have an additional 400 acre-feet in RDA storage.

San Gabriel District has an obligation to deliver 19,900 acre-feet consisting of 9,600 acre-feet of undelivered Replacement Water that was not delivered by the end of fiscal year 2015-16, 4,400 acre-feet of Replacement Water to be delivered by the end of fiscal year 2016-17, 5,000 acre-feet owed to MWD for calendar year 2015 and 900 acre-feet of RDA. (In addition, due to the Net Interagency Transfer Adjustment, Upper District and Three Valleys District had negative balances for Replacement Water obligations. In accordance with Section 27, Paragraph (h)(3) of Watermaster's Rules and Regulations, "All adjustments shall be accumulated in a Deferred Replacement Water Requirement Account for each of the Responsible Agencies. In future years when deliveries of Replacement Water may be made by a Responsible Agency, up to the amount, or any portion of the amount, in the Deferred Replacement Water Requirement Account, such deliveries will be equally subtracted from the Replacement Water requirement of the Responsible Agency(s) from which it was derived..." At the end of fiscal year 2015-16, San Gabriel District has a Deferred Replacement Water obligation of 7,522.42 acre-feet, which will be delivered in a future year when Upper District and Three Valleys District have a Replacement Water obligation to subtract from.)

The SWP allocation for San Gabriel District is 17,280 acre-feet, of which 3,000 acre-feet is assumed to be reserved for San Gabriel District's Dudley Ridge agreement. Consequently, San Gabriel District will deliver 14,280 acre-feet into its Cyclic Storage account by the end of calendar year 2016. By the end of calendar year 2016, San Gabriel District will have about 16,700 acre-feet in its Cyclic Storage account. Of the 16,700 acre-feet in San Gabriel District's Cyclic Storage account, 5,000 acre-feet will be transferred to MWD, 900 acre-feet will be transferred to RDA, 9,600 acre-feet will be transferred for the undelivered Replacement Water that was not delivered in fiscal year 2015-16, and 1,200

acre-feet will be for Replacement Water. Consequently, San Gabriel District will have an undelivered balance of 3,200 acre-feet of Replacement Water obligation that will not be delivered by the end of calendar year 2016. Watermaster will have an additional 900 acre-feet in RDA storage.

Second Year - Fiscal Year 2017-18

The total Basin untreated imported water obligation required to be delivered during fiscal year 2017-18 is about 44,400 acre-feet which consists of 3,200 acre-feet of undelivered Replacement Water that was not delivered in fiscal year 2016-17, 29,300 acre-feet of Replacement Water to be delivered during fiscal year 2017-18, 5,000 San Gabriel District owes to MWD and 6,900 acre-feet of RDA.

Upper District has an obligation to deliver 26,000 acre-feet consisting of 3,000 acre-feet deliveries through USG-5 for the Cooperative Water Exchange Agreement, 17,400 acre-feet of Replacement Water to be delivered in fiscal year 2017-18 and 5,600 acre-feet of RDA. It is assumed 18,000 acre-feet will be wet replenishment deliveries through USG-3 and 5,000 acre-feet will be from Cyclic Storage as the result of a transfer from MWD. Consequently, at the end of fiscal year 2017-18, Upper District will have no Replacement Water Obligation and Watermaster will have an additional 5,600 ace-feet in RDA storage.

Three Valleys District has an obligation to deliver 2,700 acre-feet which consists of 2,300 acre-feet of Replacement Water to be delivered in fiscal year 2017-18 and 400 acre-feet of RDA. It is assumed Three Valleys will deliver its full obligation. Consequently, at the end of fiscal year 2017-18, Three Valleys District will have no Replacement Water obligation and Watermaster will have an additional 400 acre-feet in RDA storage.

San Gabriel District has an obligation to deliver 15,700 acre-feet consisting of 3,200 acre-feet of undelivered Replacement Water that that was not delivered by the end of fiscal year 2016-17, 6,600 acre-feet of Replacement Water to be delivered by the end of fiscal year 2017-18, 5,000 acre-feet owed to MWD and 900 acre-feet of RDA. (At the end of fiscal year 2017-18, San Gabriel District has a Deferred Replacement Water obligation of 7,522.42 acre-feet, which will be delivered in a future year when Upper District and Three Valleys District have a Replacement Water obligation to subtract from.)

The SWP allocation for San Gabriel District is assumed to be 17,280 acre-feet. Consequently, San Gabriel District will deliver 17,280 acre-feet into its Cyclic Storage account by the end of calendar year 2017. By the end of calendar year 2017, San Gabriel District will have about 17,300 acre-feet in its Cyclic Storage account. Of the 17,300 acre-feet in San Gabriel District's Cyclic Storage account, 5,000 acre-feet will be transferred to MWD, 900 acre-feet will be transferred to RDA, 3,200 acre-feet will be transferred for the undelivered Replacement Water not delivered in fiscal year 2016-17, and 6,600 acre-feet will be transferred for Replacement Water to be delivered by the end of fiscal year 2017-18. Consequently, San Gabriel District will have a balance of 1,600 acre-feet in its Cyclic Storage account. San Gabriel District will have no Replacement Water obligation and Watermaster will have an additional 900 acre-feet in RDA storage.

Third Year - Fiscal Year 2018-19

The total Basin untreated imported water obligation required to be delivered during fiscal year 2018-19 is about 47,400 acre-feet which consists of 1,400 acre-feet of Replacement Water that was not delivered by the end of fiscal year 2017-18, 35,400 acre-feet of Replacement Water to be delivered during fiscal year 2018-19, 5,000 San Gabriel District owes to MWD and 6,900 acre-feet of RDA.

Upper District has an obligation to deliver 28,200 acre-feet consisting of 3,000 acre-feet deliveries through USG-5 for the Cooperative Water Exchange Agreement, 19,600 acre-feet of Supplemental Water to be delivered in fiscal year 2018-19 and 5,600 acre-feet of RDA. It is assumed 20,200 acre-feet will be wet replenishment deliveries through USG-3 and 5,000 acre-feet will be from Cyclic Storage as the result of a transfer from MWD. Consequently, at the end of fiscal year 2018-19, Upper District will have no Replacement Water Obligation and Watermaster will have an additional 5,600 ace-feet in RDA storage.

Three Valleys District has an obligation to deliver 2,700 acre-feet which consists of 2,300 acre-feet of Replacement Water to be delivered in fiscal year 2018-19 and 400 acre-feet of RDA. It is assumed Three Valleys will deliver its full obligation. Consequently, at the end of fiscal year 2018-19, Three Valleys District will have no Replacement Water obligation and Watermaster will have an additional 400 acre-feet in RDA storage.

San Gabriel District has an obligation to deliver 16,500 acre-feet consisting of 10,600 acre-feet of Replacement Water to be delivered by the end of fiscal year 2018-19, 5,000 acre-feet owed to MWD and 900 acre-feet of RDA. (At the end of fiscal year 2018-19, San Gabriel District has a Deferred Replacement Water obligation of 7,522.42 acre-feet, which will be delivered in a future year when Upper District and Three Valleys District have a Replacement Water obligation to subtract from.)

The SWP allocation for San Gabriel District is assumed to be 17,280 acre-feet. Consequently, San Gabriel District will deliver 17,280 acre-feet into its Cyclic Storage account by the end of calendar year 2018. By the end of calendar year 2018, San Gabriel District will have about 18,900 acre-feet in its Cyclic Storage account. Of the 18,900 acre-feet in San Gabriel District's Cyclic Storage account, 5,000 acre-feet will be transferred to MWD, 900 acre-feet will be transferred to RDA, and 10,600 acre-feet will be transferred for Replacement

Water to be delivered by the end of fiscal year 2018-19. Consequently, San Gabriel District will have a balance of 2,400 acre-feet in its Cyclic Storage account. San Gabriel District will have no Replacement Water obligation and Watermaster will have an additional 900 acre-feet in RDA storage.

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TABLE 1
THREE-YEAR WATER SUPPLY PURCHASES FROM
YEAR 1 - FISCAL YEAR 2016-17
(ACRE-FEET)

Agency	Replacement Water		RDA		Delivered to Producer Cyclic Storage/MWD	Accum. Producer Cyclic Storage/MWD	Total Supplemental Water	
	Delivered/ Deducted from Cyclic	Accum. Undelivered Balance	Accum. Delivered	Accum. Undelivered Balance			Delivered	Undelivered Balance
Upper District	3,000	0	5,600	0	21,000	21,000	29,600	0
Three Valleys District	100	0	400	0	0	0	500	0
San Gabriel District	10,800	3,200	900	0	5,000	5,000	14,300 1/	3,200
Total	**13,900**	**3,200**	**6,900**	**0**	**26,000**	**26,000**	**44,400**	**3,200**

Agency	Treated Imported Water Delivered
Upper District Tier 1	500
Three Valleys District Tier 1	7,000
Three Valleys District Tier 2	0
Total	**7,500**

Agency	Total Water Delivered
Upper District	30,100
Three Valleys District	7,500
San Gabriel District	14,300
Total	**51,900**

Note:
1/ It is assumed San Gabriel District will deliver 14,280 AF into its Cyclic Storage account. About 16,700 AF was deducted from its Cyclic Storage account to fulfill Replacement Water, RDA and MWD requirement.

TABLE 2
THREE-YEAR WATER SUPPLY PURCHASES FROM
YEAR 2 - FISCAL YEAR 2017-18
(ACRE-FEET)

Agency	Replacement Water		RDA		Delivered to Producer Cyclic Storage/MWD	Accum. Producer Cyclic Storage/MWD	Total Supplemental Water	
	Delivered/ Deducted from Cyclic	Accum. Undelivered Balance	Accum. Delivered	Accum. Undelivered Balance			Delivered	Undelivered Balance
Upper District	20,400	0	5,600	0	0	21,000	26,000	0
Three Valleys District	2,300	0	400	0	0	0	2,700	0
San Gabriel District	9,800	0	900	0	5,000	10,000	17,300 1/	0
Total	**32,500**	**0**	**6,900**	**0**	**5,000**	**31,000**	**46,000**	**0**

Agency	Treated Imported Water Delivered
Upper District Tier 1	500
Three Valleys District Tier 1	7,000
Three Valleys District Tier 2	0
Total	**7,500**

Agency	Total Water Delivered
Upper District	26,500
Three Valleys District	9,700
San Gabriel District	17,300
Total	**53,500**

Note:
1/ It is assumed San Gabriel District will deliver 17,280 AF into its Cyclic Storage account. About 15,700 AF was deducted from its Cyclic Storage account to fulfill Replacement Water, RDA and MWD requirement.

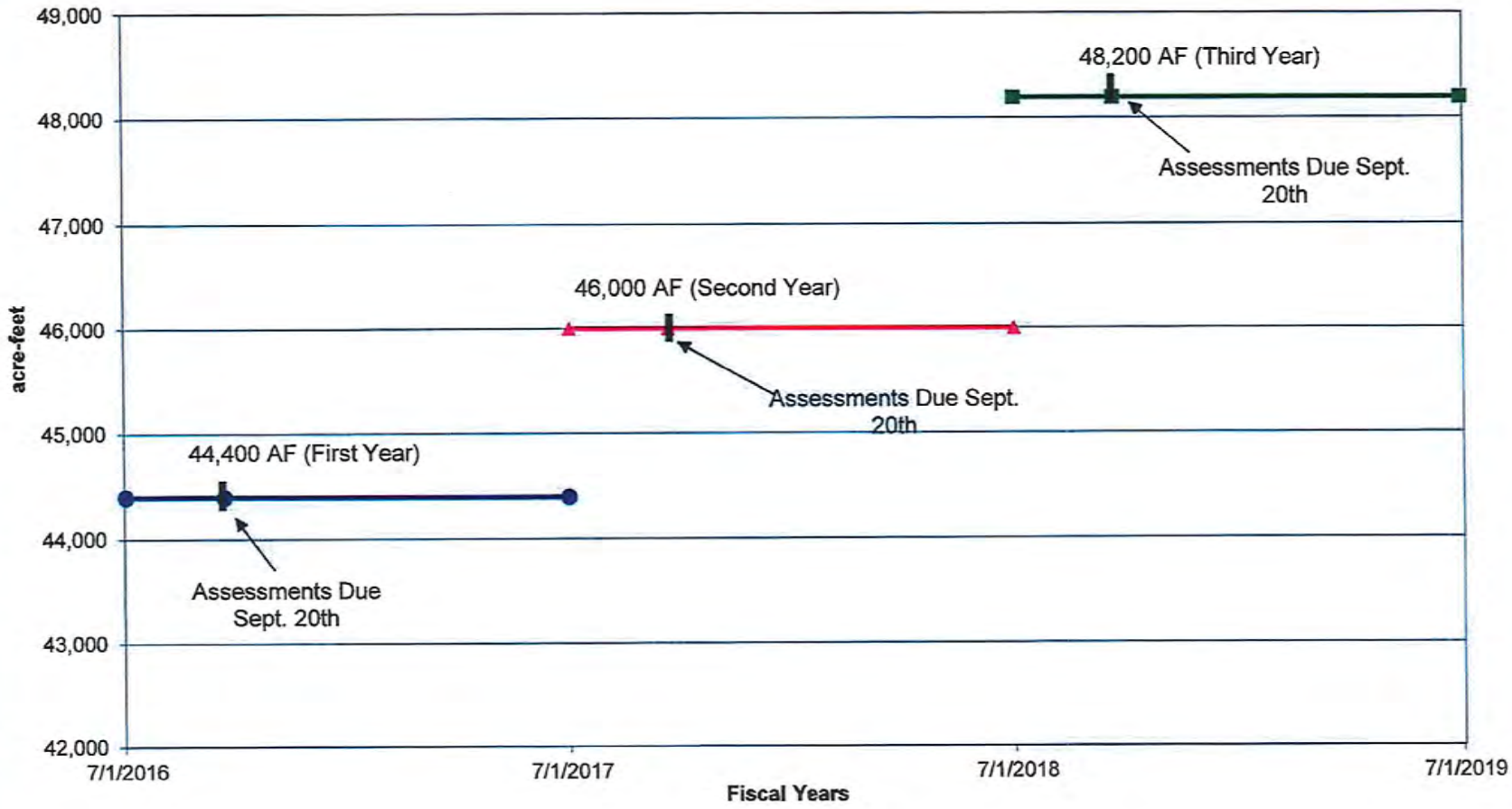
TABLE 3
THREE-YEAR WATER SUPPLY PURCHASES FROM
YEAR 3 - FISCAL YEAR 2018-19
(ACRE-FEET)

Agency	Replacement Water		RDA		Delivered to Producer Cyclic Storage/MWD	Accum. Producer Cyclic Storage/MWD	Total Supplemental Water	
	Delivered/ Deducted from Cyclic	Accum. Undelivered Balance	Accum. Delivered	Accum. Undelivered Balance			Delivered	Undelivered Balance
Upper District	22,600	0	5,600	0	0	21,000	28,200	0
Three Valleys District	2,300	0	400	0	0	0	2,700	0
San Gabriel District	10,600	0	900	0	5,000	15,000	17,300 1/	0
Total	**35,500**	**0**	**6,900**	**0**	**5,000**	**36,000**	**48,200**	**0**

Agency	Treated Imported Water Delivered
Upper District Tier 1	500
Three Valleys District Tier 1	7,000
Three Valleys District Tier 2	0
Total	**7,500**

Agency	Total Water Delivered
Upper District	28,700
Three Valleys District	9,700
San Gabriel District	17,300
Total	**55,700**

Note:
1/ It is assumed San Gabriel District will deliver 17,280 AF into its Cyclic Storage account. About 16,500 AF was deducted from its Cyclic Storage account to fulfill Replacement Water, RDA and MWD requirement.



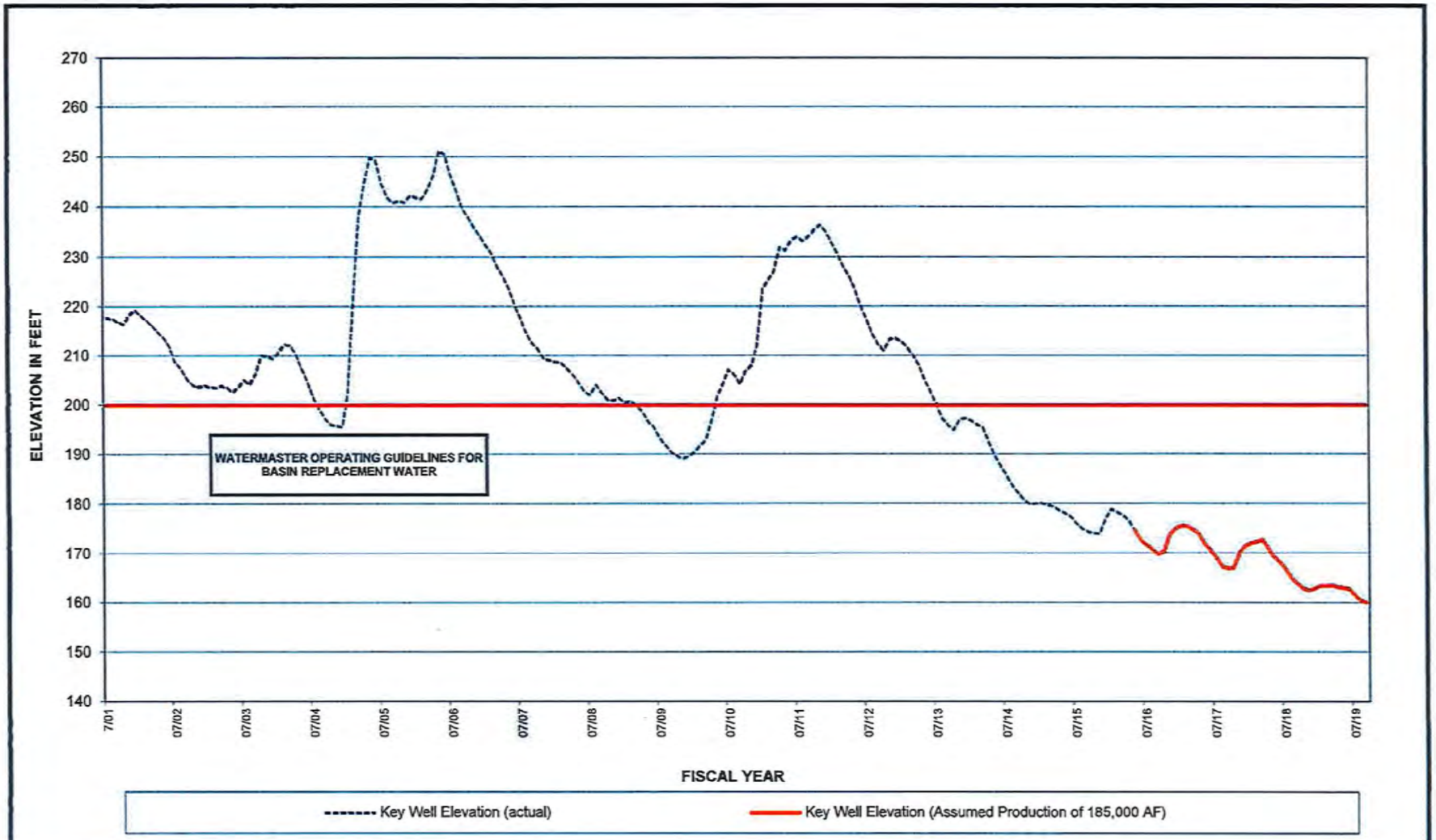
STETSON ENGINEERS INC.
Covina San Rafael Mesa, Arizona
WATER RESOURCE ENGINEERS

MAIN SAN GABRIEL BASIN WATERMASTER

THREE-YEAR WATER PURCHASES
SUPPLEMENTAL WATER DELIVERIES

FIGURE 1

Z:\Jobs\1205\1205-87 Three year plan\FY 2016-17 to 2018-19\Figure 1 - Suppl Water Deliveries_



STETSON ENGINEERS INC.

Covina San Rafael Mesa, Arizona

WATER RESOURCE ENGINEERS

MAIN SAN GABRIEL BASIN WATERMASTER

THREE-YEAR WATER PURCHASES
BALDWIN PARK KEY WELL ELEVATION FORECAST

FIGURE 2

Z:\Jobs\1205\1205-87 Three year plan\FY 2016-17 to 2018-19\Figure 2 - KeyWell Projections

APPENDIX E

RESOLUTION NO. 03-14-260

RESOLUTION NO. 03-14-260

A RESOLUTION OF THE MAIN SAN GABRIEL BASIN WATERMASTER ALERTING PRODUCERS TO THE CURRENT STATEWIDE WATER SUPPLY SHORTAGE AND ENCOURAGING CONSERVATION MEASURES

WHEREAS, the Main San Gabriel Basin is an overdraft basin requiring supplemental water to augment local supplies in order to effectively meet Producers' annual water supply requirements; and

WHEREAS, the Main San Gabriel Basin Watermaster is appointed by the Superior Court of the State of California for the County of Los Angeles to manage groundwater in the Main San Gabriel Basin; and

WHEREAS, the Watermaster in June 2012 has taken steps to modify the judgment, enabling modern and adaptive basin management; and

WHEREAS, the State of California is experiencing record dry year conditions, with 2014 projected to become the driest year on record; and

WHEREAS, effective January 17, 2014, Governor Edmund G. Brown, Jr. declared a statewide state of emergency due to drought conditions; and

WHEREAS, on January 31, 2014, the state of California's second snow survey reported statewide snowpack 12% of normal levels and the California Department of Water Resources (DWR) officially reduced the State Water Project (SWP) Table A Allocation to zero percent of contract amounts; and

WHEREAS, court-mandated cutbacks on water deliveries from the State Water Project have greatly reduced the amount of imported water available to Southern California; and

WHEREAS, Main San Gabriel Basin Watermaster depends on imported water from Northern California and the Colorado River to augment its supply; and

WHEREAS, the Los Angeles County and specifically, the San Gabriel Valley has experienced below-normal rainfall for the past seven of 10 years, resulting in decreased storm water capture and runoff available for groundwater recharge; and

WHEREAS, storage in the San Gabriel Canyon Reservoirs is at or below minimum pool levels; and

WHEREAS, the water elevation at the Baldwin Park Key Well is currently below the 200 foot level, and without significant precipitation, the Key Well is expected to reach an historic low during Fiscal Year 2014-15; and

WHEREAS, over the past 20 years, southern California rate payers have invested more than $15 billion in regional storage, infrastructure improvements, local resources and water use efficiency programs that are now serving to sustain supplies during this historic dry period; and

WHEREAS, the cities and water agencies serving The San Gabriel Valley's population of more than 1 million people have done an outstanding job working together to develop water-management strategies and implement comprehensive water use efficiency programs to help ensure a reliable supply of high-quality water to meet countywide demand and health and safety regulations; and

WHEREAS, the Metropolitan Water District of Southern California has declared a Water Supply Alert calling for all cities, counties, member agencies and retail water agencies to implement extraordinary water use efficiency measures, adopt and implement local drought ordinances to preserve regional storage reserves; and

WHEREAS, reducing water consumption through conservation is an effective method of reducing overall water demands on the Basin, thereby helping to sustain water levels to minimize overdraft of the Basin; and

WHEREAS, increasing and applying efficient water use habits today is the responsible thing to do and will help ensure the San Gabriel Valley has enough water to maintain its quality of life and thriving economy;

NOW, THEREFORE, BE IT RESOLVED BY THE MAIN SAN GABRIEL BASIN WATERMASTER AS FOLLOWS:

1) All Basin Producers are hereby alerted to the critical water supply shortage in California, and, in particular, in the Main San Gabriel Basin.

2) All Producers are hereby strongly encouraged to implement measures to promote water conservation in order to achieve a reduction goal of 20 percent of average annual demands.

3) This Resolution shall be sent to all Basin Producers, and shall remain in effect until such time as Watermaster determines that water levels in the Basin can be sustained without extraordinary conservation measures.

Adopted this 5th day of March, 2014

Chair

Attest:

Secretary

APPENDIX F

RDA RESOLUTION

RESOLUTION NO. 09-13-257

A RESOLUTION OF INTENTION OF THE MAIN SAN GABRIEL BASIN WATERMASTER TO FIX, ESTABLISH, AND LEVY THE WATER RESOURCE DEVELOPMENT ASSESSMENT FOR FISCAL YEAR 2014-15 ON ALL PRODUCTION FROM THE MAIN SAN GABRIEL BASIN

WHEREAS, the Main San Gabriel Basin Watermaster is the court-appointed agency with the responsibility to manage, and maintain, the quality and quantity of water in the Main San Gabriel Basin. Those responsibilities include implementation of the Physical Solution which requires the delivery of Supplemental Water to the Main San Gabriel Basin; and

WHEREAS, delivery of Supplemental Water supplies to the Main San Gabriel Basin, were interrupted during calendar years 2007, 2008 and 2009; and

WHEREAS, Pursuant to the June 21, 2012 amendments to the Judgment, and Rules and Regulations adopted by Resolution No. 03-13-251, Watermaster has established a Water Resource Development Assessment which may be levied on all water Produced from the Basin; and

WHEREAS, Main San Gabriel Basin Watermaster intends to purchase and store Supplemental Water in the Main San Gabriel Basin to address a future Replacement Water Obligation in the event Supplemental Water supplies are interrupted again.

NOW, THEREFORE, BE IT RESOLVED BY THE MAIN SAN GABRIEL BASIN WATERMASTER, as follows:

Section 1. There is hereby fixed, established, and levied, the Water Resource Development Assessment on all Production from the Basin during Fiscal Year 2014-15.

a) The rate of the Water Resource Development Assessment shall be $20.00 (twenty dollars) per acre-foot, on all water Produced from the Basin. Future Water Resource Development Assessments shall be established at the May meeting of the Main San Gabriel Basin Watermaster and in accordance with the amended Judgment.

b) A Water Resource Development Assessment Plan shall be approved by Watermaster defining specific criteria for amount of water to be stored, its procedures whereby water may be withdrawn from storage by Watermaster to fulfill a specific undelivered Replacement Water Requirement, and all accounting procedures to document the funds contributed by each producer and the quantity of water purchased with those funds.

c) The Water Resource Development Assessment shall be evaluated and re-affirmed by Watermaster each year. The final Water Resource Development Assessment shall be levied on Fiscal Year 2023-24 Production.

Section 2. Upon receipt of the final Production Reports for the Fiscal Year 2014-15, the Secretary of Watermaster is, hereby, instructed to calculate the said respective Water Resource Development Assessment due from each Producer from the Basin by multiplying its Fiscal Year 2014-15 Production by the applicable Water Resource Development Assessment set forth above.

The Secretary shall then furnish each such Producer with a statement of the amount due to Watermaster on account of such Water Resource Development Assessment, on or before August 15, 2015 for said fiscal year 2014-15 Production.

Section 3. Said Water Resource Development Assessment shall be payable by each Producer which had Production within the Basin during Fiscal Year 2014-15 on or before September 20, 2015, and the said Water Resource Development Assessment shall be delinquent thereafter.

Dated: September 4, 2013

Chairman

Attest:

Secretary

APPENDIX G

IN-LIEU PROGRAM

RESOLUTION NO. 12-14-270

A RESOLUTION OF THE MAIN SAN GABRIEL BASIN WATERMASTER DECLARING ITS INTENT TO ESTABLISH A DIRECT DELIVERY IMPORTED WATER PROGRAM IN THE BASIN DURING FISCAL YEARS 2014-15 & 2015-16

WHEREAS, on January 17, 2014, Governor Edmund G. Brown, Jr., declared a state of emergency to exist in California due to severe drought conditions; and

WHEREAS, on April 25, 2014, Governor Brown issued a proclamation of a continued state of emergency based on continued drought conditions; and

WHEREAS, the water in the Main San Gabriel Basin ("Basin"), as measured at the Baldwin Park Key Well, is at elevation 181.4 feet above mean sea level as of October 17, 2014, which is 18.6 feet below the lowest operating range of 200 feet as set forth in the Main San Gabriel Basin Judgment; and

WHEREAS, the Main San Gabriel Basin Watermaster ("Watermaster") was formed by the Los Angeles County Superior Court in 1973 to manage the Basin on behalf of the water rights holders and the Court; and

WHEREAS, Three Valleys Municipal Water District ("Three Valleys District") was formed in 1950, and the Upper San Gabriel Valley Municipal Water District ("Upper District") was formed in 1960 as Metropolitan Water District of Southern California ("Metropolitan") member agencies; and San Gabriel Valley Municipal Water District ("San Gabriel District") was formed in 1959. Each of the three municipal water districts was formed under the Municipal Water District Act and serve as a Responsible Agency under the Basin Judgment to provide Replacement Water; and

WHEREAS, on April 18, 2014 the California Department of Water Resources provided a notice that the allocation of water to State Water Project (SWP) contractors, which includes Metropolitan and San Gabriel District, was five percent of the SWP Entitlement; and

WHEREAS, extended dry weather conditions and the limited SWP water allocation, which historically has been used for groundwater replenishment deliveries, prompted Watermaster to consider alternative methods of sustaining Basin groundwater supplies; and

WHEREAS, Watermaster adopted the Water Supply Shortage In-lieu Water Delivery Program at its October 1, 2008 meeting to supplement and extend the availability of decreasing groundwater supplies by shifting groundwater production to treated imported water deliveries where those connections are available; and

WHEREAS, the Basin's primary source of Replacement Water for groundwater replenishment, Metropolitan, is currently restricting the source of water that can be obtained for purposes of replenishing the Basin; and

WHEREAS, the Watermaster has coordinated with Producers which have treated imported water connections to take delivery of treated imported water instead of continuing to Produce from their groundwater wells. The phased deliveries are shown on Attachment A; and

WHEREAS, the use of treated imported water on an in-lieu basis by those Producers who have access to such connections is considered to be a benefit to all Basin Producers and the equivalent to replenishment because the in-lieu deliveries off-set groundwater production, slow Basin decline, reduce overdraft and thereby reduce the amount of untreated Supplemental Water needed for replenishment. Consequently, the cost of the Direct-Delivery Imported Water Program ("Program") may be spread among all Basin Producers through use of the Administration assessment on all Basin Production; and

WHEREAS, Producers who take treated imported water pursuant to Attachment A will be reimbursed for the cost of the purchased water, less normal groundwater production costs and appropriate assessments (avoided-costs).

NOW THEREFORE, BE IT RESOLVED BY THE MAIN SAN GABRIEL BASIN WATERMASTER, as follows:

Section 1. Beginning January 1, 2015, Watermaster will implement Phase 1 (Attachment A) of the Program.

Section 2. Phase 1 of the Program shall consist of 3,500 acre-feet of water to be delivered within the Upper District service area.

Section 3. Watermaster will fund Phase 1 of the Program in the amount of $974,000 out of reserves with repayment assessed through future assessments.

Dated: December 9, 2014

Chair

Attest:

Secretary

ATTACHMENT A

Summary of Direct Delivery Phases

1. **Phases 1** (Jan – June 2015)
    - A. Immediate start up
    - B. Benefit to main part of Basin
    - C. Participants
        - a. SWS
            - i. 3500 AF
            - ii. $974,000
            - iii. Assessment of $4.30/AF
2. **Phases 2** (July 2015 – June 2016)
    - A. Benefit to main part of Basin
    - B. Participants
        - a. SWS
            - i. 11,000 AF
            - ii. $3,062,000
            - iii. Assessment of $13.98/AF
        - b. Arcadia
            - i. 1,000 AF
            - ii. $277,300
            - iii. $1.21/AF
        - c. So. Pas.
            - i. 200 AF
            - ii. $21,100
            - iii. Assessment of $0.09/AF
        - **d. Sub-total Phases 1 and 2**
            - i. 15,700 AF (almost 20,000 AF required when Key Well is at elevation 185 feet)
            - ii. $4,334,000
            - iii. Assessment of $20.02/AF
3. **Phase 3; Optional** (July 2015 – June 2016)
    - A. Primary benefit to a sub-basin; incidental benefit to main part of Basin
    - B. Producer may need to purchase treated imported water regardless
    - C. Participants
        - a. ALW
            - i. 3,650 AF
            - ii. $943,000
            - iii. Assessment of $3.99/AF
        - b. Glendora
            - i. 2,000 AF
            - ii. $444,000
            - iii. $1.95/AF

c. GSWC - SD
    i. 4,100 AF
    ii. $1,030,000
    iii. Assessment of $4.56/AF
    iv. Subtotal Phase 3
        1. 9,750 AF
        2. $2,417,000
        3. $11/AF
    v. Subtotal Phases 1, 2, and 3
        1. 25,450 AF
        2. $6,751,000
        3. $33/AF

4. Phases 4 (July 2015 – June 2016)
    a. Alhambra
        i. Not economically viable to Alhambra
    b. CAWC – SM
        i. Tier 1 allocation to San Marino is minimal; increased deliveries would likely result in Tier 2 rates
    c. GWSC –SG
        i. Cannot participate due to OU pumping obligations
    d. VCWD –declined to participated at this time (BPOU CRs may be responsible for treated water costs in the event of lost production due to water quality)
    e. Monrovia-- declined to participated at this time