Home Gardens
County Water District

TEMESCAL BASIN GROUNDWATER SUSTAINABILITY PLAN

ADMINISTRATIVE DRAFT
PROJECTS AND MANAGEMENT ACTIONS

July 2021

TODD GROUNDWATER

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Acronyms

AFY	acre-feet per year
Basin	Temescal Subbasin
CEQA	California Environmental Quality Act
Corona	City of Corona
DBP	disinfection byproduct
DWR	California Department of Water Resources
GSA	Groundwater Sustainability Agency
GSP	Groundwater Sustainability Plan
HGCWD	Home Gardens County Water District
IRWMP	Integrated Regional Water Management Plan
JPA	joint powers authority
MGD	million gallons per day
MSL	mean sea level
Norco	City of Norco
O&M	operation and maintenance
OWOW	One Water One Watershed
PFAS	per and polyfluoroalkyl substances
POTW	publicly owned treatment works
PVC	polyvinyl chloride
QA/QC	Quality Assurance and Quality Control
RCFCWCD	Riverside County Flood Control and Water Conservation District
RO	reverse osmosis
RWQCB	Santa Ana Regional Water Quality Control Board
SAR	Santa Ana River
SWRCB	State Water Resources Control Board
TCP	1,2,3-Trichloropropane
TDS	total dissolved solids
TSS	total suspended solids
USBR	United States Bureau of Reclamation
UWMP	Urban Water Management Plan
WMWD	Western Municipal Water District
WRCRWA	Western Riverside County Regional Wastewater Authority
WRF	Water Reclamation Facility
WSCP	water shortage contingency plan

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8. PROJECTS AND MANAGEMENT ACTIONS

This chapter of the Groundwater Sustainability Plan (GSP) includes projects and management actions aimed at achieving sustainability goals and responding to changing conditions in the Temescal Subbasin (Basin). The projects and management actions are divided into three groups:

- Group 1 - Existing or established projects and management actions
- Group 2 - Projects and management actions that have been or are under development
- Group 3 - Conceptual projects and management actions that can be considered in the future if any Group 2 projects fail to be implemented or additional intervention is required to achieve basin sustainability goals.

A summary of the projects and management actions in each of the groups is presented in **Table 8-1**. Additional discussion of each project is included in the sections that follow.

Table 8 1. Summary of Projects and Management Actions

Description	Agency	Category	Status	Anticipated Timeframe
Group 1 - Existing or established projects and management actions				
Groundwater Treatment	City of Corona	Project	Ongoing	Implemented
WRF Percolation Ponds	City of Corona	Project	Ongoing	Implemented
Water Level QA/QC	City of Corona	Project	Ongoing	Implemented
Water Shortage Contingency Plans	Cities of Corona and Norco	Management Action	Ongoing	Implemented
Water Conservation Programs	Cities of Corona and Norco	Management Action	Ongoing	Implemented
Western Municipal Water District - IRWMP	10 local cities/agencies including the GSA	Management Action	Ongoing	Implemented
Western Riverside County Regional Wastewater Authority (WRCRWA)	GSA, Jurupa Community Services District, and WMWD	Project	Ongoing coordination	Pending coordination with WRCRWA and partner agencies
Santa Ana Watershed Involvement	GSA, Santa Ana Watershed Project Authority (SAWPA), and Santa Ana River Dischargers Association (SARDA) members	Management Action	Ongoing	Implemented
Group 2 – Projects and management actions have been developed or are under development				
Interconnected Surface Water Monitoring Wells Implementation	GSA	Project	In planning	Well implementation within the first year of GSP adoption
Potable Reuse Feasibility Study	GSA	Project	Not started	Study initiation within the second year of GSP adoption
Mountain Runoff Capture Investigation	GSA and RCFCWCD	Project	Not started	Study initiation within five years of GSP adoption
Group 3 – Conceptual future projects and management actions				
Future Groundwater Treatment	GSA	Project	Not started	No current anticipated timeline
Stormwater Capture, Treatment and Recharge	GSA	Project	Not started	No current anticipated timeline
Santa Ana River Wastewater Discharge Coordination for Shallow Groundwater Conditions	GSA, SAWPA, and SARDA members	Management Action	Not started	No current anticipated timeline

8.1. GROUP 1 PROJECTS

Group 1 projects and management actions are considered existing or established commitments by the City of Corona (Corona), other agencies within the Temescal Groundwater Sustainability Agency (GSA), and/or affiliated agencies. Group 1 projects are either already in operation or are currently being implemented with anticipated near-term operation.

8.1.1. Groundwater Treatment

Corona relies on groundwater from the Temescal and Bedford-Coldwater Basins for up to 50 percent of its potable water supply. **Table 8-2** shows Corona's current and projected annual groundwater extraction volumes from these basins. As shown in the table, the Temescal Basin is responsible for most of Corona's current and future groundwater supply.

Table 8-2. Existing and Projected Groundwater Extraction Volumes (AFY)

Basin	2020	2025	2030	2035	2040	2045
Bedford-Coldwater	0	2,112	2,112	2,112	2,112	2,112
Temescal	16,239	13,000	13,000	13,000	13,000	13,000

Data Source: 2020 Urban Water Master Plan (Michael Baker International 2021)

Approximately half of the groundwater pumped in Corona is treated at the Temescal Desalter Facility, a city-owned, reverse osmosis (RO) facility. This facility reduces nitrates, per and polyfluoroalkyl substances (PFAS), 1,2,3-Trichloropropane (TCP), perchlorates, and total suspended and dissolved solids (TSS and TDS) from water pumped from the Temescal Basin. In addition, ammonium hydroxide and sodium hypochlorite is added to the treated groundwater to act as a disinfectant and mitigate the formation of disinfection byproducts (DBPs) (City of Corona 2020). The Temescal Desalter produces 10 million gallons per day (MGD) on average.

Corona maintains five continuously monitored blending facilities that blend the treated groundwater with both surface water and non-Desalter treated, locally produced groundwater. A portion of the groundwater utilized at the blend station that has not been treated by the desalter is treated with sodium hypochlorite and ammonium hydroxide. This blend reduces the elevated amounts of fluoride, nitrate, and perchlorates found in the groundwater to a safe, consumable level.

The City of Norco (Norco) and Home Gardens County Water District (HGCWD) have service areas that overlie the Basin. The two entities do not currently pump groundwater from the

Basin; however, should they utilize it for future supply they would likely require implementation of similar treatment.

8.1.2. Water Reclamation Facility (WRF) Percolation Ponds

Wastewater is treated at three Corona-owned and operated Water Reclamation Facilities (WRF-1, WRF-2 and WRF-3). The average annual production of treated wastewater (effluent) from these sources is approximately 11.35 MGD, or 12,700 acre-feet per year (AFY). Supply is anticipated to increase incrementally due to population growth by an additional 0.88 MGD through 2040 (about 7.8 percent).

WRF effluent is allocated to three end uses: (1) discharge to the Santa Ana River Watershed (SWRCB 2021), (2) reuse via the reclaimed water distribution system, and (3) discharge to offsite percolation ponds. WRF-1 and WRF-2 both contribute effluent to all of these end uses while WRF-3 only contributes effluent to the reclaimed water system. The three offsite percolation ponds overlie the Basin and allow for recharge. One of the ponds is located along Lincoln Avenue and the other two at the end of Rincon Street near Cota Street. **Table 8-3** below shows the total annual effluent contributed to the percolation ponds in the last five years.

Table 8-3. WRF Annual Percolation Pond Contributions (AFY)

Facility	2016	2017	2018	2019	2020
WRF-1	1,364	5,273	4,493	5,026	4,987
WRF-2	734	1,207	1,306	1,462	1,774

Data Source: 2020 Urban Water Master Plan (Michael Baker International 2021)

8.1.3. Water Level Quality Assurance and Quality Control (QA/QC)

Corona is conducting water level quality assurance and quality control (QA/QC) activities to maintain and increase the integrity and reliability of ongoing groundwater elevation data collection. Static and pumping water level depths are collected, by Corona water operators, once a month from each groundwater well location identified in Chapter 7, Monitoring Network.

The current QA/QC process practiced by Corona involves the following activities:

- The data is entered into Corona's database at the end of the water operator's shift.
- The data is also written in a whiteboard in the Drinking Water staff crew room.

Corona is updating their QA/QC policies to ensure manual entry errors are minimized by creating "Alert" pop up boxes in their database.

- The minimum, maximum, average, and standard deviation static and pumping water level depths have been calculated for each monitored well.
- The "Alert" pop up will appear if the data entered is greater than the upper limit or less than the lower limit for any monitoring event.
    - The upper limit for each well will be the standard deviation times two plus the average.
    - The lower limit will be the average minus two times the standard deviation.
- The Alert pop up still allows the operator to enter the data, but makes them aware that the data being entered in is outside the range of the historical measurements.
- It will be up to the water operator to recheck the data being entered, and either confirm or correct the measurement.
- A report including the most recent static and pumping water levels for each monitored well will be created once a month, and this report will be reviewed by operators and management to identify data collection errors and/or trends in water levels.

8.1.4. Water Shortage Contingency Plans

Corona's 2020 Urban Water Management Plan (UWMP) estimated the available supply from imported water, groundwater, and reclaimed water at a total of 50,000 AFY. Using this baseline supply, a water shortage contingency plan (WSCP) was developed. The WSCP has six stages based on available supply and associated deficit. Each stage has associated response actions to ensure appropriate reductions water use (Michael Baker International 2021). **Table 8-4** shows each of the stages and associated supply. Note that the Ordinance 2962 Water Conservation Stage Column will be discussed further in Section 8.2.5. Detailed information on response actions for a given stage can be found in the 2020 UWMP and is discussed further in Section 8.2.5.

Table 8-4. WSCP Shortage Level Determination

WSCP Stage	Ordinance 2962 Water Conservation Stage	Condition	Available Supply (AFY)	Deficit (AFY)
0	1	No Shortage	50,000	None
1	1	10 percent Shortage	45,000	None
2	1	20 percent Shortage	40,000	None
3	2	30 percent Shortage	35,000	5,000
4	3	40 percent Shortage	30,000	10,000
5	4	50 percent Shortage	25,000	15,000
6	5	> 50 percent Shortage	< 25,000	> 15,000

Data Source: 2020 Urban Water Master Plan (Michael Baker International 2021)

The City of Norco has developed their own respective WSCP based on the six stages and respective percent shortage condition as well (City of Norco 2021).

8.1.5. Water Conservation Program

In 2009, Corona implemented Ordinance No. 2962, amending the Corona Municipal Code to provide framework for water conservation and drought response measures. The Ordinance defines five stages of water conservation, corresponding water consumption objectives (10 percent to 40 percent or greater), and associated conservation and drought response measures. **Table 8-4**, above, shows the five stages and associated storage condition and available supply. The following is a summary of the shortage response actions to be taken at each water conservation stage (per Ordinance No. 2962), more detailed information can be found in the 2020 UWMP (Michael Baker International 2021).

- **Stage 1:** No water shortage, or "normal water supply", applies when Corona is able to fully meet all customer water demands. Normal water efficiency programs will be in effect during this time.
- **Stage 2:** Water customers shall reduce consumption by 10 to 15 percent. Examples of water reduction measures include irrigation limitations and residential car washing and drainage restrictions.
- **Stage 3:** Water customers shall reduce consumption by 16 to 20 percent. This includes all restrictions in Stages 1 and 2 and adds additional restrictions, such as limiting new construction water meters and prohibiting ornamental fountains or similar structures.
- **Stage 4:** Water customers shall reduce consumption by 21 to 40 percent. This includes all restrictions in Stages 1, 2, and 3 and adds additional restrictions, such as

prohibiting the issuance of new construction water meters and prohibiting issuance of new building permits.

- **Stage 5:** Water customers shall reduce consumption by at least 41 percent. This includes all restrictions in Stages 1, 2, 3, and 4 and adds additional restrictions, such as prohibiting all outdoor watering, except for recycled water use for fruit tree irrigation.

The City of Norco has developed their own respective conservation plan based more directly on the WSCP stages discussed in the prior section (City of Norco 2021).

8.1.6. Participation in Integrated Regional Water Management Plans (IRWMP)

The Western Municipal Water District (WMWD) Integrated Regional Water Management Plan (IRWMP) was prepared in 2008 (WMWD 2008). The purpose of the plan was to address long range water quantity, quality, and environmental planning needs within the WMWD service area. The IRWMP was prepared in cooperation with the ten cities/water districts receiving water from WMWD, including the Cities of Corona and Norco. The creation of the IRWMP provided a coordinated water management strategy to make sure water resources are being used responsibly throughout the region.

More recently, in 2018, the Santa Ana River Watershed Project Authority (SAWPA) developed the One Water One Watershed (OWOW) Plan Update to serve as the IRWMP for the Santa Ana River Watershed (SAWPA 2018). The OWOW Plan was initially developed in 2010 and has been subsequently updated in 2014 and 2018. The OWOW Plan was prepared with engagement from over 4,000 stakeholders. Including 120 water agencies and 63 incorporated cities within the watershed. All three GSA members were involved in the planning process.

The goals of the 2018 OWOW Plan are to achieve resilient water supply, improve water quality, preserve natural spaces, improve data integration and tracking, diminish environmental injustices, and educate visitors within the Santa Ana River Watershed.

8.1.7. Western Riverside County Regional Wastewater Authority (WRCRWA)

The Western Riverside County Regional Wastewater Authority (WRCRWA) is a joint powers authority (JPA) consisting of the cities of Norco and Corona, Jurupa Community Services District, Home Gardens Sanitary District, and WMWD. The WRCRWA Plant has a 14 MGD capacity and will soon produce recycled water for local irrigation use.

As JPA partners, Corona and Norco will be entitled to up to 2 and 2.7 MGD respectively of recycled water allocated for use in their service areas, reducing local pumping from the Temescal Basin.

8.1.8. Santa Ana Watershed Involvement

SAWPA is a JPA formed to develop and maintain regional plans and projects that will protect the Santa Ana River basin and associated water resources. The City of Corona participates in the task forces and working groups within the watershed noted in **Table 8-5**.

Table 8-5. City of Corona Santa Ana Watershed Task Forces/Groups

Name	Brief Description
SAWPA – Emerging Constituents Task Force	In 2007, a workgroup was formed among the water recharging agencies and publicly owned treatment works (POTWs) to address a characterization program for emerging constituents. SAWPA was requested to administer the development of a 2-phase approach.
SARDA – Santa Ana River Discharge Agencies	Working group of Santa Ana River (SAR) discharge agencies jointly implementing the annual mercury monitoring in the SAR.
SAWPA – Basin Monitoring Task Force	As an outgrowth of the Nitrogen/TDS Task Force, the agencies responsible for implementing the Basin Plan Amendments formed the Basin Monitoring Task Force, and SAWPA was identified to administer/facilitate that effort.
SAWPA – Imported Water Recharge Workgroup	The purpose of this Workgroup is to undertake tasks defined in a Cooperative Agreement among the water recharging agencies to assure that the water quality (Nitrogen and TDS) in groundwater is protected. These tasks include regular reporting on the amount and quality of water recharged, the ambient water quality in each groundwater management zone, and 20-year groundwater flow and quality model projections for each groundwater management zone that is recharged. All reports are provided to the Regional Water Quality Control Board.

In addition, Corona discharges treated wastewater from one of their three water reclamation plants (WRF-1) to Temescal Wash within the Santa Ana River Watershed. Corona discharged an average of approximately 2,000 AFY to the watershed from WRF-1 (Michael Baker International 2021). The discharged water serves a dual purpose of maintaining riparian habitat as well as recharging the Basin via percolation.

8.2. GROUP 2 PROJECTS

Group 2 projects will be implemented to meet Basin sustainability goals, in conjunction with Group 1 projects.

8.2.1. Shallow Monitoring Well Installation

A total of three shallow monitoring wells will be drilled in the Prado Management Area. The wells will be approximately 40 to 60 feet in depth and 2-inches in diameter. **Figure 8-1** shows the proposed, approximate location of these monitoring wells.

The approximate locations have been identified based on existing groundwater conditions, land access, and the ongoing construction of the new Prado Dike. Areas north of the Prado Dike will potentially be inundated in the future, and future monitoring wells need to be located outside the area of inundation. The locations shown on **Figure 8-1** are above 545-feet mean sea level (MSL) elevation. The existing spillway elevation of the Prado Dam is 543-feet MSL, so these monitoring well locations should be above the future area of inundation.

8.2.1.1. Measurable Objective Expected to Benefit from Project or Management Action

The project will allow for continuous monitoring at representative sites in the Prado Management Area. This will allow Corona to track groundwater levels in the southern part of the management area along with the rest of the Basin. Groundwater levels in these wells will be incorporated into the interconnected surface water sustainable management criteria in the 5-year GSP update. Once established, the sustainable management criteria for these wells will help guide future management actions required by upstream Santa Ana River Watershed partners.

8.2.1.2. Circumstances for Implementation

Corona has already initiated the planning process to install these monitoring wells. It is anticipated that these can be implemented with existing on-call contracts.

8.2.1.3. Public Noticing

The public will be notified per California Environmental Quality Act (CEQA)requirements.

8.2.1.4. Permitting and regulatory process

Wells will be drilled on private or City of Corona property. The project will comply with all CEQA, Riverside County, and discharge permitting requirements. Corona will coordinate with the Santa Ana Regional Water Quality Control Board (RWQCB) to plan for discharging any and all water in accordance with RWQCB general permits.

8.2.1.5. Project Timetable

The monitoring wells will be installed within two years of GSP implementation.

8.2.1.6. Plan for Project Implementation

Three monitoring wells will be drilled in areas in the Prado Management Area. The wells will be approximately 40 to 60 feet deep, each, and will be 2-inches in diameter with polyvinyl chloride (PVC) casings and screens, bentonite seals, and cement sanitary seals. The well drilling process will be completed with existing Corona on-call contracts.

8.2.1.7. Expected Benefits

The installation of three monitoring wells will allow the Corona to track groundwater levels in the Prado Management Area and identify timing and triggers for future management actions, if needed.

8.2.1.8. Legal Authority

By California state law, water districts and land use jurisdictions have the authority to take action to ensure sufficient water supply is available for present or future beneficial use within their service areas.

8.2.1.9. Estimated Costs and Funding Plan

Costs are anticipated to be $40,000 to $50,000 in total for the installation of the three wells. The project will be financed from existing Corona budgets.

8.2.1.10. Management of Project

The project will be managed by the City of Corona Department of Water and Power with support from other staff and outside technical experts, as necessary.

8.2.1.11. Relationship to Additional GSP Elements

The addition of three new monitoring wells in the Basin will identify future management actions required by upstream Santa Ana River Watershed partners. This is discussed in further detail in Group 3.

8.2.2. Potable Reuse Feasibility Study

As noted in the Group 1 project section, the WRCRWA facility is near-future reclaimed water supply source for Corona. Corona will conduct a potable reuse feasibility study to evaluate various potable reuse strategies and opportunities for optimizing use this reclaimed water supply in conjunction with existing reclaimed water supply from WRF-1, 2, and 3. This study would likely involve looking at specific end uses, water supply benefits, regulatory requirements, treatment requirements, infrastructure requirements, and associated costs.

8.2.2.1. Measurable Objective Expected to Benefit from Project or Management Action

Corona is exploring future options to optimize use of water reuses in the basin in order to reduce groundwater dependence.

8.2.2.2. Circumstances for Implementation

Corona is currently exploring a wide range of options to increase their water supply portfolio.

8.2.2.3. Public Noticing

Public noticing is not required for this project. Should potable reuse projects be recommended for the region, Corona may choose to adopt a comprehensive outreach and education program to solicit public input.

8.2.2.4. Permitting and regulatory process

Permits are not required for this project. This study will evaluate potential potable reuse projects and will consider potential regulatory requirements for implementation.

8.2.2.5. Project Timetable

The study is anticipated to be one year in duration, initiating approximately two years after adoption of the GSP.

8.2.2.6. Plan for Project Implementation

Corona would need to develop a study scope, issue a project solicitation, and hire a technical consultant to perform the evaluation.

8.2.2.7. Expected Benefits

This study will evaluate and recommend future potable reuse projects to be implemented in the region.

8.2.2.8. Legal Authority

Legal authority is not required to perform a feasibility study.

8.2.2.9. Estimated Costs and Funding Plan

The study is anticipated to cost between $150,000 to $200,000 and will likely be funded through City of Corona sources. Grant funding is available through the State Water Resources Control Board (SWRCB) and the United States Bureau of Reclamation (USBR) should Corona choose to pursue alternate means of funding.

8.2.2.10. Management of Project

The project will be managed by the City of Corona Department of Water and Power with support from other staff and outside technical experts, as necessary.

8.2.2.11. Relationship to Additional GSP Elements

Because this project is a feasibility study, it is not anticipated to have any impact on other GSP projects or management actions described in this chapter. Future potable reuse projects recommended as a result of this study will reduce groundwater dependence in the region.

8.2.3. Mountain Runoff Capture Feasibility Study

Riverside County Flood Control and Water Conservation District (RCFCWCD) operates major flood control facilities such as dams, flood basins, levees, open channels, and major (36-inch or larger) underground storm drains in a 2,700 square mile service area in the western portion of Riverside County. Rainwater runoff from the Santa Ana Mountains flows into RCFCWCD flood basins during storm events to mitigate downstream flood damage. This study would explore options for operational changes that would provide the dual benefit of flood control and groundwater recharge.

8.2.3.1. Measurable Objective Expected to Benefit from Project or Management Action

Although this study would yield no direct measurable objectives, future recommended projects would help to raise groundwater levels in the basin and reduce the threat of land subsidence.

8.2.3.2. Circumstances for Implementation

Corona is currently exploring options to increase groundwater recharge. An initial study would be conducted to establish a basis for inter-agency coordination between RCFCWCD and Corona on the subsequent feasibility study.

8.2.3.3. Public Noticing

Public noticing is not required for this project. Should implementation projects be recommended for the region, Corona may choose to adopt a comprehensive outreach and education program to solicit public input.

8.2.3.4. Permitting and regulatory process

Permits are not required for this project. This study will evaluate potential runoff capture projects and will consider potential regulatory requirements for implementation.

8.2.3.5. Project Timetable

The initial study would be undertaken within the first five years of GSP adoption and be approximately three months in duration. After appropriate inter-agency coordination, the subsequent feasibility study is anticipated to be approximately six months in duration.

8.2.3.6. Plan for Project Implementation

RCFCWCD owns and operates this infrastructure. Interagency discussion should be conducted, upon completion of the initial study, to coordinate on development of the feasibility study.

8.2.3.7. Expected Benefits

This study will evaluate and recommend operational changes to the RCFCWCD flood basins that would enable the system to be used for both flood control and groundwater recharge to the Basin.

8.2.3.8. Legal Authority

Legal authority is not required to perform a feasibility study.

8.2.3.9. Estimated Costs and Funding Plan

The study is anticipated to cost approximately $75,000. Corona could explore potential funding sources through the California Department of Water Resources (DWR).

8.2.3.10. Management of Project

The project will be managed by the City of Corona Department of Water and Power with support from other staff and outside technical experts, as necessary.

8.2.3.11. Relationship to Additional GSP Elements

Because this project is a feasibility study, it is not anticipated to have any impact on other GSP projects or management actions described in this chapter. Future projects implemented as a result of this study will reduce groundwater dependence in the region.

8.3. GROUP 3 PROJECTS

Group 3 projects are conceptual activities that can be considered in the future if any Group 2 projects fail to be implemented or additional intervention is required to achieve basin sustainability goals. These projects are not planned for near-term implementation and have been developed to a lesser degree than Group 2 projects but will be evaluated further, as needed, should a given Group 3 project be deemed critical for Basin sustainability.

8.3.1. Groundwater Treatment

A study conducted in 2016 focused the detection of PFAS in Corona wells as well as potential treatment options (Carollo 2016). Subsequently, Corona initiated an ongoing PFAS study likely to be complete in mid to late 2021.

Corona has future interests in advanced groundwater treatment to treat for previously detected PFAS as well as addressing TDS, nitrate, and TCP. Groundwater treated to remove these contaminants could potentially be recharged back into the Basin, improving water quality.

8.3.2. Stormwater Capture, Treatment, and Recharge

Harvesting of urban stormwater has a potential benefit of reducing the loss of water from the basin. There are a number of different approaches to stormwater capture and use including:

- Onsite rain barrels to promote reuse and reduce generation of urban runoff
- Larger scale capture in stormwater vaults/cisterns and reuse
- Capture and infiltration approaches including infiltration basins, bioretention, and permeable pavement
- Dry wells for capture and recharge
- Diversion to WWTPs for treatment and reuse

The City has conducted a preliminary investigation on capture of stormwater from a lined channel on Oak Avenue and transfer to the existing percolation ponds (Todd Engineers 2011).

It is anticipated that a future study would explore potential sources of urban runoff, estimated yield, mechanisms for augmenting or offsetting water supplies, treatment needs, capital costs, and operation and maintenance (O&M) costs. An initial investigation would establish the basis for further exploration of the feasibility of specific stormwater capture approaches and projects.

8.3.3. Santa Ana River Wastewater Discharge Coordination for Shallow Groundwater Conditions

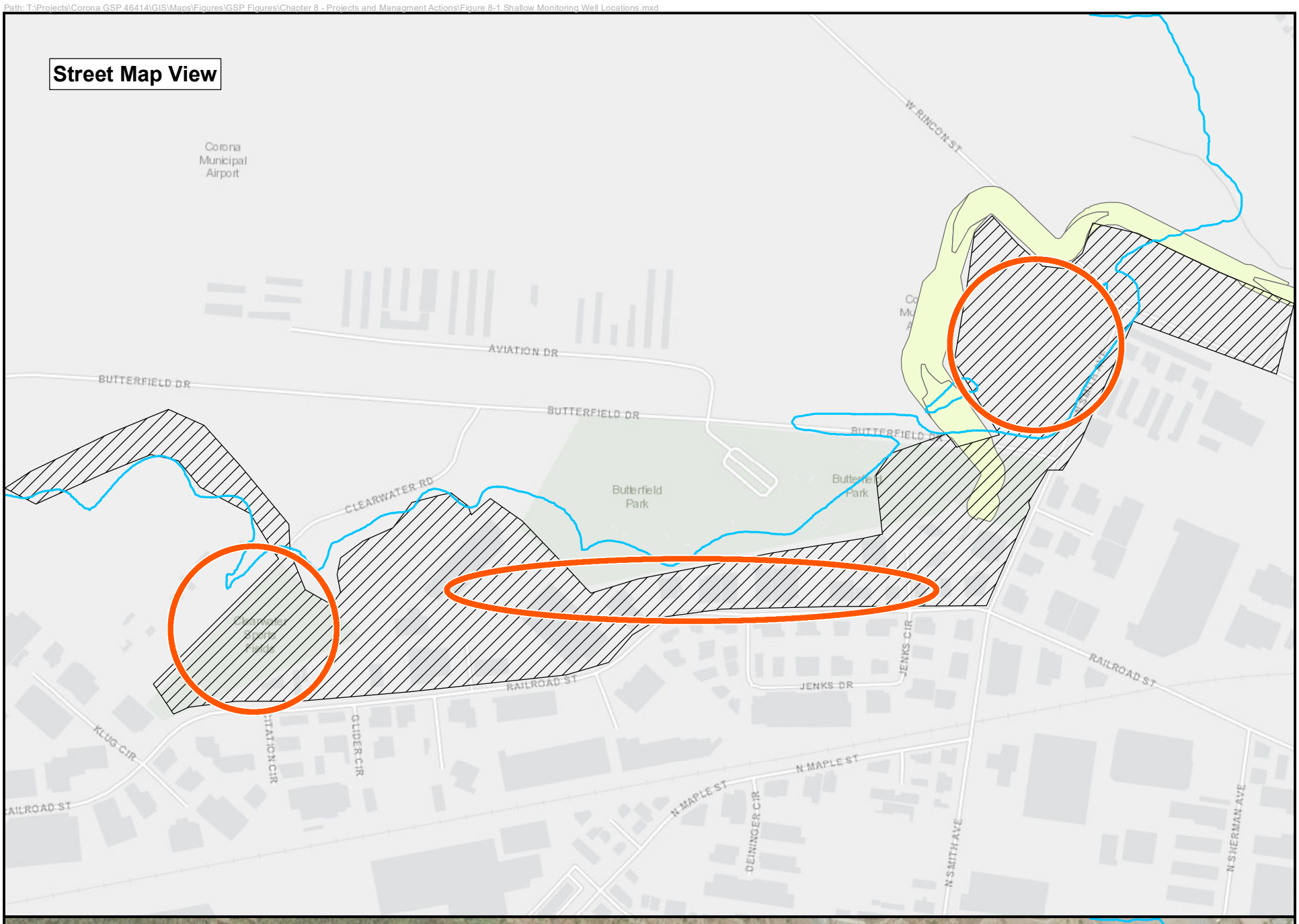
This project would be implemented contingent on the outcome of the Prado Management Area monitoring well installation, a previously discussed Group 2 project. The Prado Management Area is currently maintained by wastewater discharge from upstream parties. If monitoring well data indicates that groundwater elevations are falling, it is likely due to reduction of wastewater discharge flow.

The project approach would be two-fold and encompass the following:

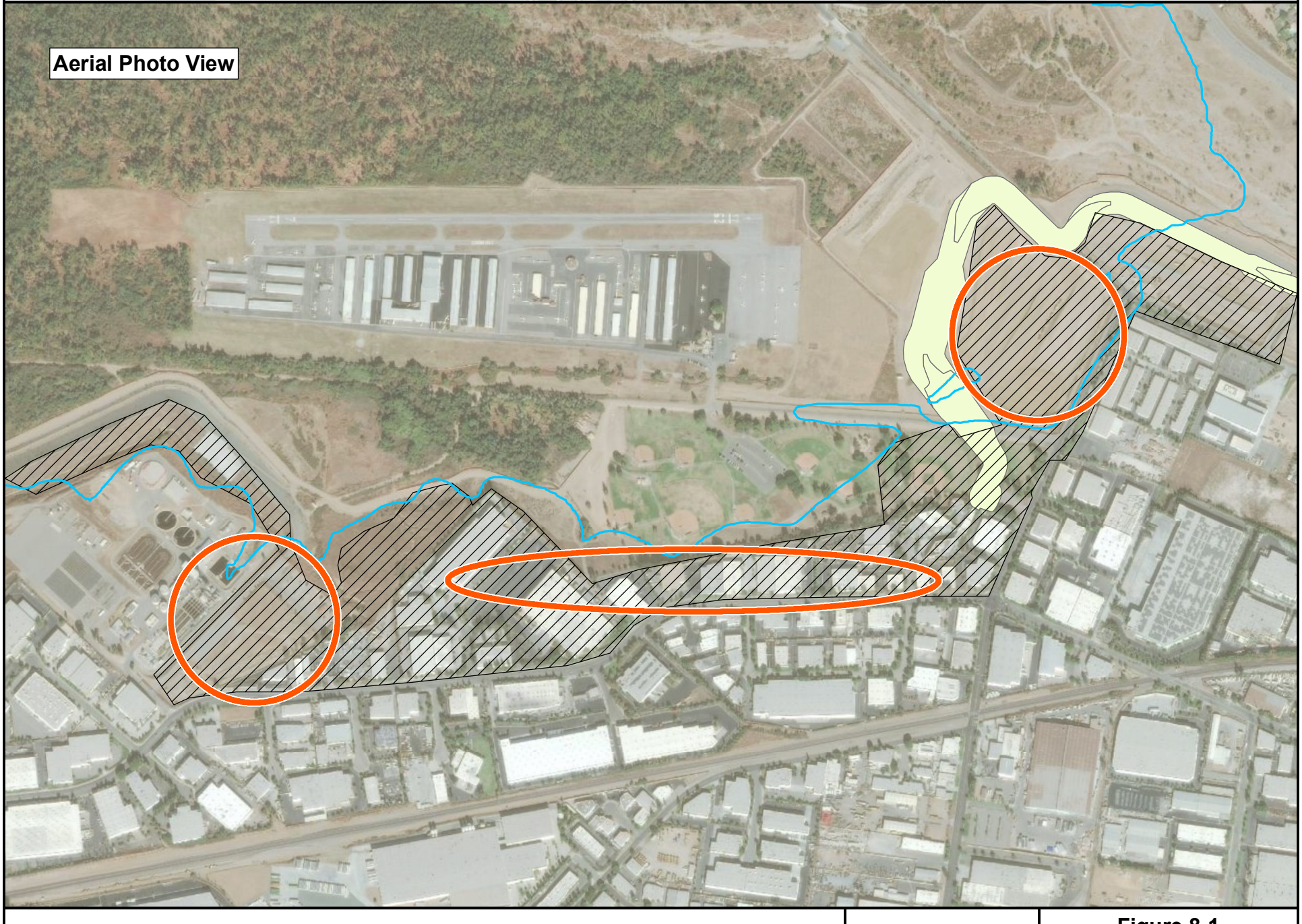
1. Evaluation and examination of current wastewater discharges into the Prado Management Area from contributing parties including SAWPA member agencies (Eastern Municipal Water District, Inland Empire Utilities Agency, Orange County Water District, San Bernardino Valley Municipal Water District, and Western Municipal Water District).
2. Coordinate with partners to identify solutions to falling groundwater water levels in the Prado Management Area.

Path: T:\Projects\Corona GSP 46414\GIS\Maps\Figures\GSP Figures\Chapter 8 - Projects and Managment Actions\Figure 8-1 Shallow Monitoring Well Locations.mxd

Street Map View



Aerial Photo View



Legend

- Approximate 545 foot Ground Surface Elevation Contour
- Recommended Shallow Monitoring Well General Search Area
- Focused Shallow Well Search Area
- Planned Prado Dike

N

0 800

Feet

Figure 8-1
Potential Shallow Monitoring Well Locations

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