

**CITY OF PASADENA
WATER AND POWER DEPARTMENT
150 SOUTH LOS ROBLES AVENUE, SUITE 200
PASADENA, CA 91101**

INITIAL STUDY

In accordance with the Environmental Policy Guidelines of the City of Pasadena, this analysis, the associated "Master Application Form," and/or Environmental Assessment Form (EAF) and supporting data constitute the Initial Study for the subject project. This Initial Study provides the assessment for a determination whether the project may have a significant effect on the environment.

SECTION I – PROJECT INFORMATION

1. Project Title: Eastside Well Collector and Centralized Disinfection Facility Project
2. Lead Agency Name and Address: City of Pasadena, Water and Power Department (PWP), 150 South Los Robles Avenue, Suite 200, Pasadena, CA 91101
3. Contact Person and Phone Number: Elisa Ventura, P.E., Engineer, (626) 744-4465
4. Project Location: The proposed project consists of installing a disinfection facility at the City's existing Jones Reservoir/Hamilton Park Site, which is located on the north side of Sierra Madre Boulevard between Riviera Drive and Hastings Ranch Road. The proposed Centralized Disinfection Facility would be located along the Sierra Madre Boulevard frontage east of and adjacent to existing PWP facilities (electric substation).

The proposed Eastside Well Collector project consists of installing pipelines to connect seven well sites to the proposed Centralized Disinfection Facility. The proposed pipelines would be installed within the segments of the City's existing street right of way identified in Table 1. Improvements would also be made at each of the involved seven well sites, which are identified in Table 2.

Figure 1 depicts the regional orientation of the City of Pasadena. Figures 2-4 depict the locations of the proposed pipelines, the well sites, and the proposed disinfection facility.

Table 1
Pipeline Segments

Street	Roadway Segment		Segment Details				Segment Facilities				Proposed Pipeline Location	Potentially Affected Facilities
	From	To	Lanes	Median	Shoulder Limit	Side-walks	Parking Spaces	Drive-ways	Bus Stop	Bike Facility		
Walnut St	Parkwood Av	Greenwood Av	2/2	DY	30	Y	8	1	-	-	19 ft from S curb	1 EB lane, Parking
	Greenwood Av	Berkeley Av	1/1	DY	35	S only	5	0	-	-	18 ft from N curb	Parking
	Berkeley Av	San Marino Av	1/1	SDY	35	S only	11	0	-	-	18 ft from N curb	Parking
	San Marino Av	Oak Av	1/1	SDY	35	S only	18	2	-	-	18 ft from N curb	Parking
	Oak Av	Craig Av	1/1	SDY	35	S only	12	1	-	-	18 ft from N curb	Parking
	Walnut St	Foothill Bl	1/1	SDY	25	Y	0	2	-	-	9 ft from W curb	Access only
	Foothill Bl	100 ft S of Foothill Bl	1/1	SDY	25	Y	16	3	-	-	13.5 ft from W curb	Parking
	100 ft S of Foothill Bl	White St	1/1	SDY	25	Y	16	3	-	-	4.5 ft from E curb	Parking
	White St	180 ft S of Corson St	1/1	SDY	25	Y	8	4	-	-	13.5 ft from W curb	Parking
	180 ft S of Corson St	Corson St	2/2	DY	25	Y	6	3	-	-	14 ft from W curb	Parking
Craig Av	Corson St	Maple St	2/2	RM	25	Y	0	0	-	-	14 ft from W curb	1 SB lane
	Maple St	100 ft N of Dolores St	2/2	DY/RM	25	Y	4	2	-	-	13 ft from W curb	1 SB lane, Parking
	100 ft N of Dolores St	Villa St	1/1	DY	25	Y	6	2	-	-	13 ft from W curb	Parking
	Villa St	Monte Vista St	1/1	UD	25	Y	5	2	-	-	12 ft from E curb	Parking
	Monte Vista St	Las Lunas St	1/1	UD	25	Y	10	2	-	-	12 ft from E curb	Parking
	Las Lunas St	Lambert Dr	1/1	UD	25	Y	11	2	-	-	12 ft from E curb	Parking
	Lambert Dr	Orange Grove Bl	1/1	UD	25	Y	10	2	-	-	12 ft from E curb	Parking
	Orange Grove Bl	Paloma St	1/1	UD	25	Y	12	2	-	-	12 ft from E curb	Parking
	Paloma St	Craig Av	1/1	UD	30	Y	25	11	-	-	7 ft from N curb	N sidewalk, parking
	600 ft E of Palo Verde	Oak Av	1/1	UD	25	Y	16	5	-	-	8 ft from N curb	Parking
Monte Vista St	Craig Av	Palo Verde Av	1/1	UD	25	Y	24	4	-	-	4 ft from S curb	Parking
	Oak Av	Dunham Aly	1/1	UD	25	Y	5	1	-	-	11 ft from W curb	Parking
Palo Verde Av	Monte Vista St	Lola Av	1/1	UD	25	Y	25	3	-	-	13 ft from S curb	Parking
	Craig Av	Martelo Av	1/1	UD	25	Y	12	6	-	-	13 ft from S curb	Parking
White St	Lola Av	Vista Av	1/1	UD	25	Y	14	7	-	-	13 ft from S curb	Parking
	Martelo Av	White St (W)	1/1	UD	25	Y	14	2	-	-	22 ft from W curb	Parking
Vista Av	White St (E)	Carmelo Av	1/1	UD	25	Y	20	1	-	-	5 ft from S curb	S sidewalk, parking
	Vista Av	Altadena Dr	1/1	UD	25	Y	16	7	-	-	5 ft from S curb	S sidewalk, parking
White St	Carmelo Av	Sierra Madre Bl	3/3	RM	35	Y	-	-	-	-	crossing	All lanes
	White St	Del Rey	3/3	RM	35	Y	3	4	-	-	13 ft S of median	1 EB lane, parking
Altadena Dr	Del Rey	Bella Vista	3/3	RM	35	Y	7	3	-	-	13 ft S of median	1 EB lane, parking
	White St	La Tierra	3/3	RM	35	Y	5	2	-	-	13 ft S of median	1 EB lane, parking
Sierra Madre Bl	Sierra Madre Bl	San Gabriel Bl	4/0	none	35	Y	0	1	-	-	20 ft from N curb	1 EBT, 1 EBL
	Del Rey	Mataro St	3/3	RM	35	Y	7	1	-	-	2 ft from W curb	Parking, SB add lane
La Tierra	Sierra Madre Bl	San Gabriel Bl	3/3	UD	25	Y	16	5	-	-	9 ft from N curb	Parking
	La Tierra	Daisy Av	1/1	UD	25	Y	34	14	-	-	9 ft from N curb	Parking
San Gabriel Bl	San Gabriel Bl	east terminus	1/1	UD	25	Y	34	14	-	-	9 ft from N curb	Parking
	San Gabriel Bl	east terminus	1/1	UD	25	Y	34	14	-	-	9 ft from N curb	Parking

Table 1
Pipeline Segments

Street	Roadway Segment		Segment Description					Segment Facilities				Proposed Pipeline Location	Potentially Affected Facilities
	From	To	Lanes	Median	Speed Limit	Side-walks	Parking Spaces	Drive-ways	Bus Stop	Bike Facility			
La Tierra	Mataro St	Sunnyslope Av	2/0	none	35	Y	4	3	-	-	10 ft from N curb	Parking	
	La Tierra St	Foothill Bl	2/3	RM	30	Y	0	0	-	-	5 ft from E curb	1 NB lane	
Sunnyslope Av	Sunnyslope Av	Titley Av	2/2	RM	35	Y	0	1	1 S side	-	1-21 ft N of median	1 WB lane, turn lane	
	Titley Av	Santa Paula Av	2/2	DY	35	Y	12	2	1 N side	-	25 ft from N curb	1 WB lane, turn lanes	
Foothill Bl	Santa Paula Av	Sierra Madre Bl	2/2	2LT	35	Y	15	6	1 N, 1 S	-	25 ft from N curb	1 WB lane, turn lanes	
	Sierra Madre Bl	Halstead St	2/2	DY	35	Y	0	6	1 S side	-	23.5 ft from N curb	1 WB lane, turn lanes	
Halstead St	Foothill Bl	175 ft S of Foothill	2/1	DY	25	Y	0	5	-	-	19 ft from N curb	1 NB lane	
	Foothill Bl	Mataro St	2/2	DY	35	Y	0	4	1 E side	Class III E	5 ft N of centerline	1 EB lane, bike lane, parking	
Mataro St	Mataro St	La Tierra	2/2	DY	35	Y	10	4	-	Class III E	5 ft N of centerline	Bike lane, parking (1 SBL)	
	La Tierra St	Estado	2/2	DY	35	Y	11	3	-	Class III E	5 ft N of centerline	Bike lane, parking (1 SBL)	
Estado St	Estado St	Alameda St	2/2	DY	35	Y	13	3	-	Class III E	5 ft N of centerline	Bike lane, parking (1 SBL)	
	Alameda St	Del Vina St	2/2	DY	35	Y	31	6	1 W side	Class III E	5 ft N of centerline	Bike lane, parking (1 SBL)	
Sierra Madre Villa Ave	Del Vina St	Las Lunas St	2/2	DY	35	Y	15	5	-	Class III E	5 ft N of centerline	Bike lane, parking (1 SBL)	
	Las Lunas St	Hermanos St	2/2	DY	35	Y	13	2	-	Class III E	13 ft from W curb	1 SB lane, parking	
Hermanos St	Hermanos St	Rosemead Bl	2/2	DY	35	Y	8	0	-	Class III E	1-5 ft from centerline	Turnlanes, parking	
	Rosemead Bl	Rida St	2/2	DY	35	Y	0	0	1 W side	Class III E	1-5 ft from centerline	Turnlanes, parking	
Rida St	Rida St	Paloma St	2/2	DY	35	Y	13	3	-	Class III E	1-5 ft from centerline	Turnlanes, parking	
	Paloma St	Primavera St	2/2	DY	35	Y	17	4	1 E, 1 W	Class III E	7 ft from E curb	parking, bike lane	
Primavera St	Primavera St	Sierra Madre Bl	2/2	DY	35	Y	8	6	-	Class III E	7 ft from E curb	parking, bike lane	
	Sierra Madre Villa Av	Riviera Dr	3/3	RM	40	Y	0	1	1 N side	Class II	3.5 ft from N curb in eastbound side	1 EB lane	
Sierra Madre Bl	Riviera Dr	200 ft E of Riviera	3/3	RM	40	Y	0	7	1 N, 1 S	Class II	3.5 ft from N curb in eastbound side	1 EB lane	

Table 2 –Eastside Well Sites

Well	Injection Capacity (AFY)¹	Extraction Capacity (GPM)²	Extraction Capacity (AFY)²	Pump HP³	Initial Year of Construction³
Craig	NA	800	1290	20	1924
Chapman	NA	1300	2,099	35	1967, 1983
Jourdan	3,805	1600	2,895	40	1926, 1992
Monte Vista	NA	1200	3,055	40	1925
Woodbury	NA	2200	3,438	40	1907, 1992
Twombly (#58)	1,701	2500	3,402	45 0	1999
Wadsworth (#59)	1,376	1500	2,751	40 0	1999
Total	6,882	111000	18,930		

1. Source: Jourdan well – historical injection data; Twombly and Wadsworth – estimated to be 50% of production capacity.
 2. Source: Pasadena Water and Power Production Records.
 3. Source: (MWH 2002)

5. Project Sponsor's Name and Address: City of Pasadena, Water and Power Department, 150 South Los Robles Avenue, Suite 200, Pasadena, CA 91101
6. General Plan Designation: OS (Open Space) – Hamilton Park/Jones Reservoir
7. Zoning: OS (Open Space) – Hamilton Park/Jones Reservoir
8. Description of the Project: (Describe the whole action involved, including but not limited to later phases of the project and any secondary, support, or off-site features necessary for its implementation. A location map and a site plan should be included. Attach additional sheets if necessary.)

The Eastside Well Collector and Centralized Disinfection Facility project involves installing the infrastructure necessary to transport groundwater from seven wells in the eastern portion of Pasadena to PWP's Jones Reservoir and to provide for centralized disinfection of the groundwater from these wells. To accomplish these objectives, PWP proposes to install 23,587 linear feet of pipeline to collect and transport groundwater from the seven involved wells to the Jones Reservoir site, where a chloramination system would be installed to disinfect the water prior to its storage in the reservoir. The proposed project also includes improvements at each of the well sites and a minor improvement to the Jones Reservoir overflow vault. The details of each project component are provided in the subsections below, as is a summary of the anticipated construction activities.

Eastside Well Collector Pipelines

The Eastside Well Collector component of the project consists of installing 23,587 linear feet of ductile iron (DI) pipeline to collect and transport groundwater from the seven involved wells to the Jones Reservoir site. The proposed pipelines would be installed

within the City's existing right-of-way (primarily street right-of-way) and would include 12-inch, 16-inch, 20-inch, and 24-inch diameter DI pipes. Figure 2 depicts the alignments of the proposed pipelines and Table 1, above, identifies and describes the involved street segments.

Centralized Disinfection Facility

The Centralized Disinfection Facility component of the project consists of installing a chloramination system (chlorine and ammonia) to disinfect the water transported by the Eastside Well Collector pipelines prior to discharge into the Jones Reservoir where the water would be stored and mixed with imported Metropolitan Water District (MWD) water. During the chloramination process, sodium hypochlorite (i.e., liquid chlorine) and ammonium hydroxide (i.e., aqueous ammonia) would be injected into the pipeline with collected groundwater.

The proposed Centralized Disinfection Facility would be located in the southern portion of the Jones Reservoir Site along the north side of Sierra Madre Boulevard (see Figure 4). As shown in Figure 5a, the facility is expected to include one (1), above-ground, 6,650-gallon sodium hypochlorite tank and one (1), above-ground, 1,800 gallon ammonium hydroxide tank. The sodium hypochlorite tank is anticipated to be a high density, cross-linked, polyethylene, double-walled tank that is up to 10.25 feet in diameter and 14.25 feet in height. The ammonium hydroxide tank is anticipated to be a carbon steel, double-walled tank that would be up to 6 feet in diameter and 10 feet in height. The tanks would be installed outdoors in an area surrounded by a concrete containment curb and covered by a roof structure to provide protection from direct sunlight. In addition, there would be three vaults installed along with a 24-inch pipeline receiving water from the Eastside Wells. These include a sodium hypochlorite injection vault, a sampling and ammonia injection vault, and a sampling and flow meter vault.

Activities to operate the facility would be coordinated with operation of the overall Jones Reservoir site. The City's water system operators currently visit the Jones Reservoir site on a daily basis to check on the existing water facilities. As part of this normal maintenance routine, the City's water system operators would visit the proposed Centralized Disinfection Facility daily to ensure the facility is operating properly. In addition, a private chemical vendor would be hired to refill the tanks as needed, with a trained Pasadena operator onsite to oversee and assist with the delivery/refill process. During normal anticipated operations the sodium hypochlorite tank would require refilling about every 23 days and the ammonium hydroxide tank would require refilling about every 42 days. In the peak flow rate scenario, the sodium hypochlorite tank would require refilling about every 13 days and the ammonium hydroxide tank would require refilling about every 25 days. Due to the size restrictions of the site where the treatment facility would be located, the vendor(s) would be asked to deliver the materials in vehicles that would be able to access the site.

Well Site Improvements

The proposed project would collect water from seven PWP wells and transport/disinfect the water for storage in Jones Reservoir. In order to protect the system from high localized pressures that could be caused from a loss of power, surge tanks are proposed at each well site to dissipate velocity and pressure. These tanks would eliminate negative pressures in the system following well pump power failure and also protect the

system from waterhammer and pressure surges during normal operation. The anticipated surge tank sizes are as follows:

- Craig Well: 340-cubic-foot (ft³) surge tank;
- Monte Vista Well: 140-ft³ surge tank; and
- Jourdan Well, Chapman Well, Twombly Well (#58), Woodbury Well, and Wadsworth Well (#59): 500-gallon surge tanks.

Each tank would be connected to the well with a short length of 8-inch diameter pipeline.

In addition, the Jourdan well pump and electric motor would be replaced as part of the project.

Jones Reservoir Overflow Vault Improvement

Jones Reservoir is considered an earth dam and any proposed alterations require approval from the California Department of Water Resources, Division of Safety of Dams (DSOD). Coordination with DSOD identified the need to increase the capacity of the Reservoir's spillway to accommodate the increased inflow that would result from the Eastside Well Collector and Centralized Disinfection Facility Project. Overflow is currently diverted through a series of pipes and an overflow/drain vault to a flood control channel in Sierra Madre Boulevard. To account for the potential increased outflow, the City proposes to modify this system by replacing the top of the existing overflow vault with grating, which would allow excess flow not handled by the existing overflow piping to be discharged to the street. The overflow vault proposed for modification is located in the reservoir's service road near the existing vent structure. No aboveground facilities or improvements are proposed.

Construction

Construction activities to complete the Eastside Well Collector and Centralized Disinfection Facility Project would occur within Pasadena right-of-way and City-owned property.

Construction would occur in two phases. The first phase of the project would occur nearest the reservoir site with pipeline segments replaced between the reservoir and Well 59. Work crews would install pipe and make well improvements in succession (not simultaneously). First phase pipeline installation and well improvements are anticipated to be completed by 2013. The second phase of the project would install pipes and improve the three remaining wells.

Pipeline installation would use standard open-cut trenching techniques. Figure 7 presents photographs of similar pipeline construction sites. Standard installation of the pipeline is anticipated to proceed at the rate of approximately 100 feet per day in more difficult conditions, and 200 to 300 feet per day in easier conditions, with an average production rate of approximately 200 feet per day. The work zone (maximum construction area at any given time) would be approximately 300 to 400 feet long. For work within roadways, the trench width would be approximately 4 to 6 feet, with active work areas of about 8 feet on one side of the trench and 10 to 12 feet on the other side for access by trucks and loaders, resulting in a construction zone approximately 20 to 30 feet wide. The depth of cover over the pipeline would be approximately 3 to 4 feet unless

deeper installation is required to avoid conflict with an existing pipeline. Suitable excavated trench materials would be used as backfill for the pipeline. Unsuitable materials would be hauled off site and disposed of at an acceptable location.

Site construction of the disinfection facility at Jones Reservoir would include site clearing; grading; pipeline installation; construction of concrete slabs and walls; construction of buried vaults; small diameter buried pipeline installation; and tank, pump and miscellaneous equipment installation. Disturbed areas would be repaired in accordance with the City of Pasadena's Standards. Pavement would be repaired and landscaping, fencing, walls and other existing improvements disturbed during construction would be replaced to pre-construction condition or better.

9. Surrounding Land Uses and Setting:

Surrounding Land Uses and Setting: The City of Pasadena lies in the San Gabriel Valley portion of the Los Angeles Basin. The San Gabriel Valley is bounded by the San Gabriel Mountains to the north and a series of hills to the west, east, and south, including the San Rafael Hills on the west, the Montebello and Puente Hills on the south, and the San Jose Hills on the east. The City of Pasadena is located in the western portion of the San Gabriel Valley with the San Rafael Hills traversing the western portion of the City.

Pasadena is a largely developed, urban/suburban City in Los Angeles County with a historic urban core, suburban residential neighborhoods, hillside communities, and the natural areas of the Arroyo Seco and San Rafael Hills. Other notable land uses in the City include the Rose Bowl, the Jet Propulsion Laboratory (JPL), Pasadena City College, and the California Institute of Technology (Caltech).

The proposed Centralized Disinfection Facility would be installed on the south side of the existing Jones Reservoir (Hamilton Park). The reservoir site is City-owned and is currently used for municipal water and power and recreation services. The Jones Reservoir is a 49.9 million gallon reinforced concrete storage facility that was built in 1949. The reservoir is completely buried. It has a high water elevation of 945 feet and serves PWP's Sunset Pressure Zone.

Hamilton Park is situated atop of the buried Jones Reservoir. This park is improved with active recreational facilities including baseball diamonds, tennis and basketball courts, and other recreational amenities. Current facilities that serve the reservoir are located on the south-facing slope of the reservoir facility. A paved area and access roads (with gates) directly abut the reservoir on the south, east, and west sides. Photographs of the Jones Reservoir site and surrounding area are shown in Figure 6.

The Jones Reservoir site is bounded by East Sierra Madre Boulevard on the south, single-family residences on the west (which front onto Crestview Drive), single-family residences to the east (which front onto Peppermill Road), and a public parking area and single-family residences to the north. Two institutional uses (Eugene Field Elementary School and First Church of the Nazarene) are located to the south across East Sierra Madre Boulevard from the project site.

The Eastside Well Collector pipelines would be constructed within existing City right-of-way (primarily street right-of-way). South of the I-210 Foothill Freeway the involved

streets lie primarily within commercial portions of the City; and north of the I-210 Foothill Freeway the involved streets are primarily within residential neighborhoods.

From a groundwater standpoint, Pasadena lies within the Raymond Basin. This basin is divided into three subareas – Pasadena, Monk Hill, and Santa Anita. The project site lies within the Pasadena Subarea of the Raymond Basin.

10. Other public agencies whose approval is required (e.g. permits, financing approval, or participation agreement):

The proposed project is anticipated to require the following discretionary approvals:

- City of Pasadena: Selection of a contractor for the pipeline installation;
- City of Pasadena: Selection of a contractor for the disinfection facility construction;
- City of Pasadena Public Works Department: Encroachment permit for work within City street right-of-way;
- City of Pasadena Fire Department: California Accidental Release Prevention (CalARP) Risk Management Plan review and approval
- California Department of Public Health (DPH): Amendment to PWP's public water system permit;
- California Department of Water Resources, Division of Safety of Dams (DSOD): Approval of alterations to Jones Reservoir; and
- Caltrans: Encroachment permit for crossing of I-210 Foothill Freeway right-of-way.

FIGURE 2: PROJECT LOCATION – EASTSIDE WELL COLLECTOR PIPELINES AND WELL SITES



FIGURE 3: PROJECT LOCATION – CENTRALIZED DISINFECTION FACILITY LOCATION

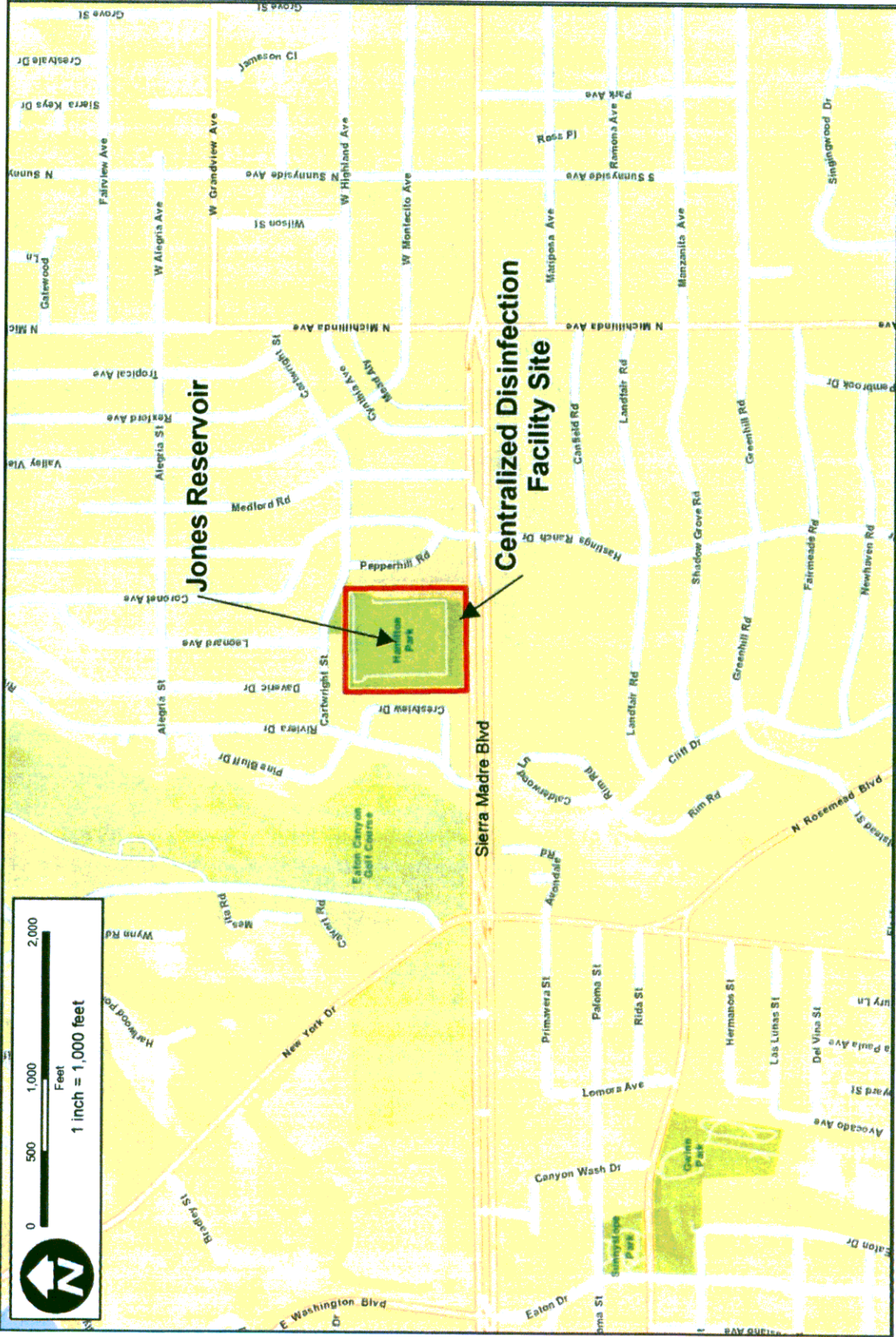


FIGURE 4: AERIAL PHOTOGRAPH OF THE CENTRALIZED DISINFECTION FACILITY SITE

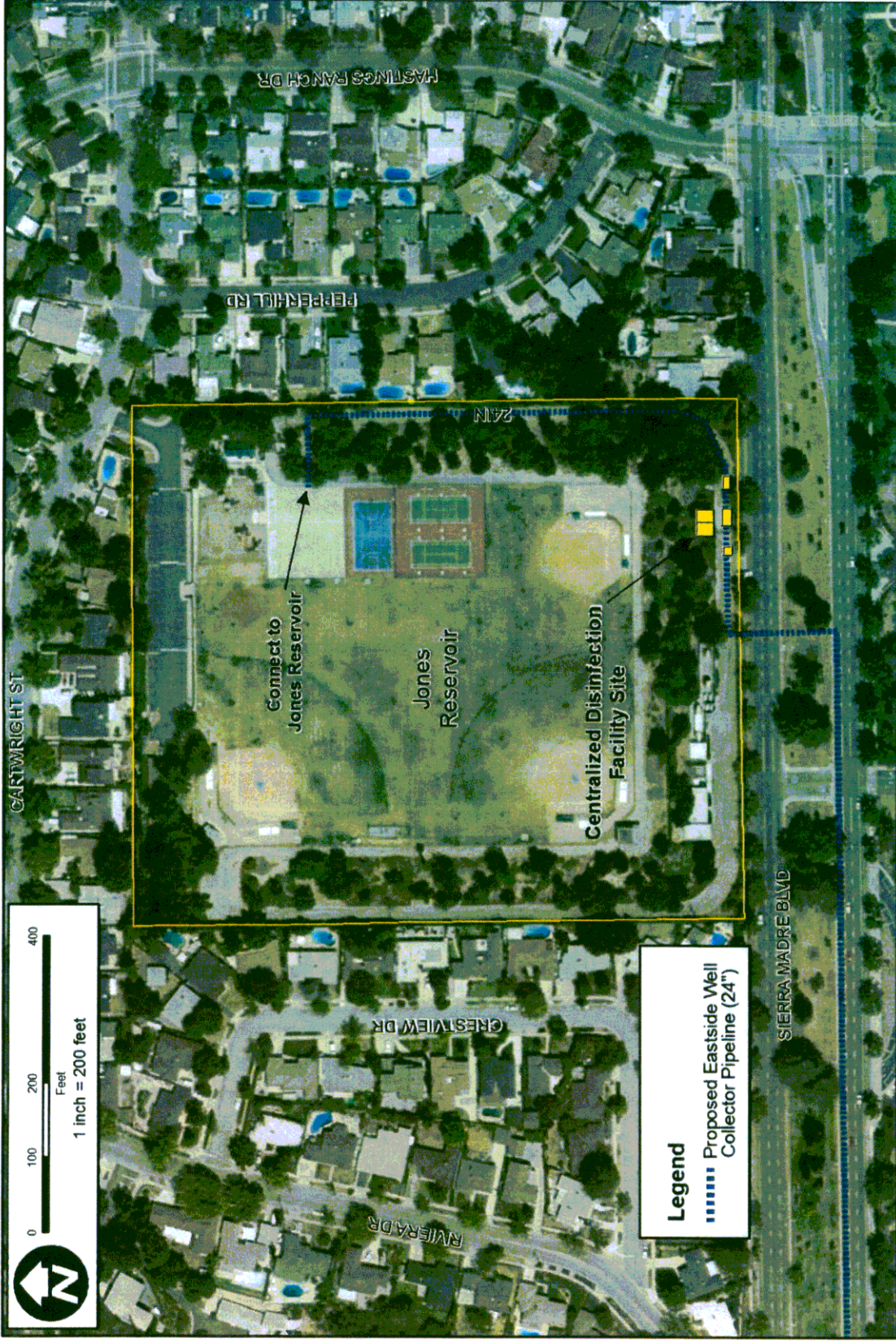


FIGURE 5b: CENTRALIZED DISINFECTATION FACILITY SITE PLAN (SHEET 2 OF 2 – NOT TO SCALE)

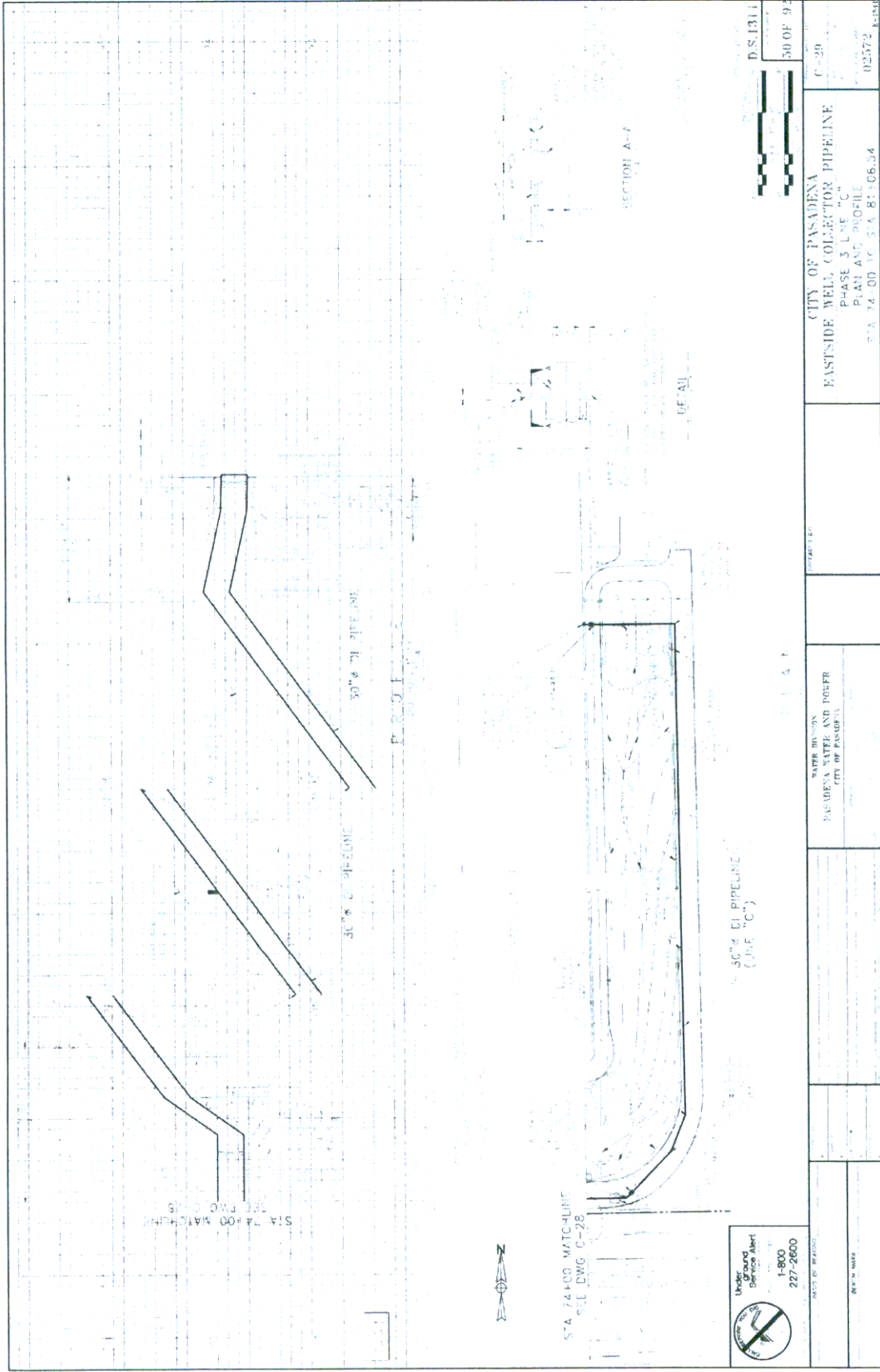


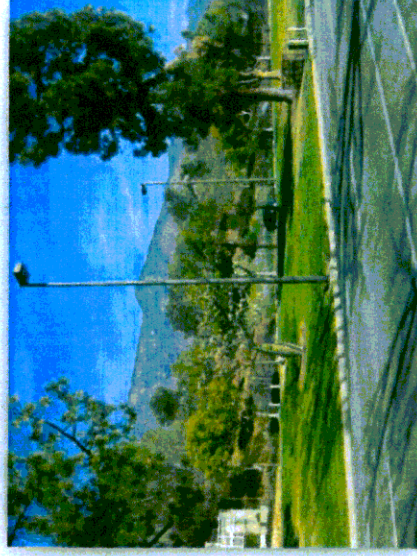
FIGURE 6: PHOTOGRAPHS OF THE JONES RESERVOIR SITE AND SURROUNDING AREA



North-Facing View of PWP Equipment at Jones Reservoir Adjacent to Centralized Disinfection Facility Site



North-Facing View of PWP Equipment at Jones Reservoir Adjacent to Centralized Disinfection Facility Site



North-Facing View of PWP Equipment at Jones Reservoir Adjacent to Centralized Disinfection Facility Site



West-Facing View of Centralized Disinfection Facility Site



West-Facing View of Centralized Disinfection Facility Site



North-Facing View of Access Road at Jones Reservoir; Buried 24" Pipeline Proposed at this Location

FIGURE 7: EXAMPLE PIPELINE CONSTRUCTION SITES



Example of 24-Inch Pipeline Trenching



Example of 12-Inch Pipeline Installation



Example of 24-Inch Pipeline Trenching



Example of 24-Inch Pipeline Installation

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

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

	Aesthetics		Geology and Soils		Population and Housing
	Agricultural Resources		Hazards and Hazardous Materials		Public Services
	Air Quality		Hydrology and Water Quality		Recreation
	Biological Resources		Land Use and Planning		Transportation/Traffic
	Cultural Resources		Mineral Resources		Utilities and Service Systems
	Energy		Noise		Mandatory Findings of Significance

DETERMINATION: (to be completed by the Lead Agency)

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	
I find that, although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. A MITIGATED NEGATIVE DECLARATION will be prepared.	X
I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.	
I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment., but at least effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards , and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.	
I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.	

John Bellas / 7.23.2012
Prepared By/Date

John Bellas
Printed Name

Jennifer Paige 7/23/12
Reviewed By/Date

Jennifer Paige
Printed Name

Negative Declaration/Mitigated Negative Declaration adopted on: _____

Adoption attested to by: _____
Printed name/Signature Date

EVALUATION OF ENVIRONMENTAL IMPACTS:

- 1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
 - 2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
 - 3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect is significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
 - 4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Unless Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less than Significant Impact." The Lead Agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section 21, "Earlier Analysis," may be cross-referenced).
 - 5) Earlier analysis may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. See CEQA Guidelines Section 15063(c)(3)(D). Earlier analyses are discussed in Section 21 at the end of the checklist.
 - a) Earlier Analysis Used. Identify and state where they are available for review.
 - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c) Mitigation Measures. For effects that are "less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier documents and the extent to which address site-specific conditions for the project.
 - 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
 - 7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
 - 8) The explanation of each issue should identify:
 - a) The significance criteria or threshold, if any, used to evaluate each question; and
 - b) The mitigation measure identified, if any, to reduce the impact to less than significant
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Potentially Significant Impact	Significant Unless Mitigation is Incorporated	Less Than Significant Impact	No Impact
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SECTION II - ENVIRONMENTAL CHECKLIST FORM

1. BACKGROUND.

Date checklist submitted:
 Department requiring checklist:
 Case Manager:

2. ENVIRONMENTAL IMPACTS. (explanations of all answers are required):

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3. AESTHETICS. Would the project:

a. *Have a substantial adverse effect on a scenic vista? (6, 18)*

The eastside collector pipeline would be located within and/or adjacent to existing City streets. These installations are largely below-ground and not visible to the public. The proposed centralized disinfection facility, however, would be above ground and would be located on the existing Jones Reservoir site, along the north side of East Sierra Madre Boulevard in the eastern portion of Pasadena. The primary view in the area of the existing reservoir is the north facing view of the San Gabriel Mountains, which are visible along north-south trending streets, through other breaks in the built environment, and above the built environment where the line-of-sight permits.

The north-facing views of the San Gabriel Mountains south of the reservoir project site include views from along the east-west trending East Sierra Madre Boulevard, views from Hamilton Park (which sits atop the Jones Reservoir), and views from the residential neighborhood south of East Sierra Madre Boulevard. These views are all currently interrupted by the existing Jones Reservoir. The proposed facility would be installed on the south side of the existing reservoir and would generally match the height of the existing structures that serve the reservoir (see Figure 6). Like these existing structures, the proposed disinfection facility structures would be placed on a pad that would be cut into the earthen slope that covers the southern boundary of the reservoir. The top of the proposed facilities would be lower than the top of this slope, and lower in elevation than the Hamilton Park recreational facilities that sit at the top of this slope. As such, the proposed project would not impact any uninterrupted views of the San Gabriel Mountains. In addition, in some portions of the neighborhoods south of Sierra Madre Boulevard, the area's topography does not allow a line-of-sight to the San Gabriel Mountains or views of the mountains are blocked by large structures (e.g., First Church of the Nazarene). Therefore, the proposed project would not have a significant impact on any scenic vistas or scenic views.

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b. *Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? (6, 10, 18)*

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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The only designated state scenic highway in the City of Pasadena is the Angeles Crest Highway (State Highway 2), which is located north of Arroyo Seco Canyon in the extreme northwest portion of the City. While not an officially designated state scenic highway, the I-210 Foothill Freeway north of S.R. 134 is identified as an "Eligible State Scenic Highway" in Caltrans' State Scenic Highway Program. The project site is not within the viewshed of the Angeles Crest Highway or the scenic corridor portion of the Foothill Freeway. Therefore, the proposed project would have no impacts on state scenic highways or scenic roadway corridors.

c. *Substantially degrade the existing visual character or quality of the site and its surroundings? (26)*

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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The proposed project consists of integrating a new centralized disinfection facility into an existing reservoir facility compound, the installation of new below-ground pipelines, and the repair/refurbishment of existing water wells. The new centralized disinfection facility at the Jones Reservoir would be constructed on a site that currently contains assorted pumping and chlorination facilities, storage buildings, access road, and parking that serves the existing reservoir. The proposed project would be consistent with the developed character of the City of Pasadena and the existing use of the Jones Reservoir site for water related facilities. The site is currently developed with a 49.9 million gallon reservoir (Jones Reservoir), a pump house, an electrical room, a chlorine enclosure, an electrical substation, and associated improvements (e.g., fencing, access road, pipes, etc.).

The proposed centralized disinfection facility would be integrated within the confines of the existing Jones Reservoir complex. The existing facility is screened from most adjacent uses by a tall screen wall, landscaping, site orientation, or the topographic configuration relative to the adjacent uses. To the south of the project site (across Sierra Madre Boulevard) are institutional uses, including an elementary school and a church. To the north, east and west of the project site are residential neighborhoods, which would be screened from the proposed disinfection facility by the existing Jones reservoir and Hamilton Park, such that the proposed disinfection facilities would not be visible from these residences or the surrounding residential street network. Similarly, the proposed disinfection facility would be largely screened from the residential neighborhood south of the project site by existing structures in the area (e.g., Eugene Field Elementary School and First Church of the Nazarene).

The only surrounding land use that would have a clear view of the proposed treatment facility is the First Church of the Nazarene, which lies south of the project site, across Sierra Madre Boulevard. As it currently exists, the north-facing view from the church is impacted by the existing views of the parkway median in Sierra Madre Boulevard, trees, landscaping, and the reservoir and related structures (pump house, an electrical room, a chlorine enclosure, an electrical substation, etc.). The existing buildings are set back from Sierra Madre Boulevard and are separated from the street by an access road, retaining wall, and trees and landscaping in the parkway. The proposed facilities would be constructed just east and in line with these existing facilities. Currently, there is sparse landscaping and a fence located on the reservoir property that partially screens the adjacent view. The installation of the proposed disinfection facility on the Jones Reservoir site would not diminish the usefulness or attractiveness of Hamilton Park as a neighborhood play site or as a ball field, which are not dependent upon attractive adjacent views. Furthermore, the proposed project would not affect the aesthetic character of Hamilton Park because the proposed water treatment facility is entirely consistent with the utilitarian aesthetic character of the Jones Reservoir facility and since

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the proposed aboveground facilities would lie at a depressed position in the landscape that is out of sight from park patrons.

Since the proposed disinfection facility would be screened from view from the surrounding residential neighborhoods and institutional uses located across Sierra Madre Boulevard, and since the project would not change the aesthetic character of the site, the proposed project would not substantially degrade the visual quality or character of the site or surroundings.

d. *Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? (26)*

The project would not have a significant impact on light and glare because it would be required to comply with the standards in the zoning code that regulate glare and outdoor lighting. Height and direction of any outdoor lighting and the screening of mechanical equipment would be required to conform to Zoning Code requirements. The project does not propose any lighting for nighttime events or sporting activities. The only outdoor lighting included in the project is for safety and security of the site. These lights are not substantial sources of glare and are an aide to public safety. The project is in an older, developed urban area with streetlights in place. The proposed lighting would be consistent with these ambient light sources; and, in accordance with the City's Municipal Code, the proposed exterior lighting fixtures would be installed and located in a manner that would not allow light beams to spill onto any surrounding properties

4. AGRICULTURAL RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland.

a. *Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? (6, 9)*

The City of Pasadena is a developed urban area surrounded by hillsides to the north and northwest. The western portion of the City contains the Arroyo Seco, which runs from north to south through the City. It has commercial recreation, park, natural and open space. The City contains no prime farmland, unique farmland, or farmland of statewide importance, as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency.

b. *Conflict with existing zoning for agricultural use, or a Williamson Act contract? (6, 26)*

The City of Pasadena has no land zoned for agricultural use other than commercial growing areas. Commercial Growing Area/Grounds is permitted in the CG (General Commercial), CL (Limited Commercial), and IG (General Industrial) zones and conditionally in the RS (Residential Single-Family), and RM (Residential Multi-Family) districts. The use is also permitted within certain specific plan areas. No portion of the project site lies within a zone that allows agriculture.

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- c. *Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220 (g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104 (g))?* (6, 26)

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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There is no timberland or Timberland Production zone in the City of Pasadena; therefore the proposed project would not result in the loss of forest land, timberland or Timberland Production areas.

- d. *Result in the loss of forest land or conversion of forest land to a non-forest use?* (6)

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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There is no forest land in the City of Pasadena; therefore the proposed project would not result in the conversion or loss of forest land.

- e. *Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?* (6, 26)

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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There is no farmland in the City of Pasadena; therefore the proposed project would not result in the conversion of farmland to a non-agricultural use.

5. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

- a. *Conflict with or obstruct implementation of the applicable air quality plan?* (2, 16)

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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The City of Pasadena is within the South Coast Air Basin (SCAB), which is bounded by the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east, and the Pacific Ocean to the south and west. The air quality in the SCAB is managed by the South Coast Air Quality Management District (SCAQMD).

The SCAB has a history of recorded air quality violations and is an area where both state and federal ambient air quality standards are exceeded. Because of the violations of the California Ambient Air Quality Standards (CAAQS), the California Clean Air Act requires triennial preparation of an Air Quality Management Plan (AQMP). The AQMP considers air quality on a regional level and identifies region-wide attenuation methods to achieve the air quality standards. The most recent plan is the 2007 AQMP, which was adopted by the California Air Resources Board (CARB) in September 2007. This plan is the South Coast Air Basin's portion of the State Implementation Plan (SIP). The 2003 AQMP remains the applicable air plan for federal ozone standards, since the U.S. Environmental Protection Agency (EPA) has not taken action to approve the 2007 AQMP. In addition to the region-wide AQMPs, the City of Pasadena participates in a sub-regional air quality plan – the West San Gabriel Valley Air Quality Plan. This plan, prepared in

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1992, is intended to be a guide for the 16 participating cities, and identifies methods of improving air quality while accommodating expected growth.

Implementation of the AQMP is based on a series of control measures and strategies that vary by source type (i.e., stationary or mobile) as well as by the pollutant that is being targeted. The control measures in the 2007 AQMP are based on facility modernization, energy efficiency and conservation, good management practices, market incentives/compliance flexibility, area source programs, emission growth management and mobile source programs. In addition, CARB has developed a plan of control strategies for sources controlled by CARB (i.e. on-road and off-road motor vehicles and consumer products). Further, Transportation Control Measures (TCM) defined in SCAG's Regional Transportation Plan (RTP) and Regional Transportation Improvement Program (RTIP) are needed to attain the ambient air quality standards. The TCMs defined in the RTP and RTIP fall into three categories, High Occupancy Vehicle Measures, Transit and System Management Measures and Information-based Transportation Strategies.

The SCAQMD's CEQA Handbook identifies two key indicators of consistency with the AQMP:

- (1) Whether the project will result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP (except as provided for CO in Section 9.4 for relocating CO hot spots).
- (2) Whether the project will exceed the assumptions in the AQMP in 2010 or increments based on the year of project buildout and phase.

In regards to criterion 1, the consistency criterion pertains to long-term local air quality impacts, rather than regional emissions, as defined by the SCAQMD. The SCAQMD has identified carbon monoxide (CO) as the best indicator pollutant for determining whether air quality violations would occur, as CO hot-spot is most directly related to increase in traffic. Nevertheless, the air basin is now in attainment for the CO standards and exceedances of the CO standards are not expected. Consequently, local air quality impact modeling is no longer performed. Local air pollutant concentrations would not be expected to exceed the ambient air quality concentration standards due to local traffic, with or without the project. Because the project is not projected to impact the local air quality, the project is found to be consistent with the AQMP for the first criterion.

In regards to criterion #2, the assumptions used to develop the AQMP are based upon projections from local general plans. Consequently, conformity with the AQMP of infrastructure and land development projects is measured by the project's consistency with adopted land use plans, growth forecasts, and programs relative to population, housing, employment, and land use. The proposed project is an improvement of the City's water system and does not involve a direct change in population, housing, employment, or land use. Furthermore, the project does not involve expansion of available water supplies or other improvements that would promote growth. Rather, the proposed project is intended to improve the City's water reliability and disinfection process to serve the City's existing and projected water demand. As a result, the project is consistent with the growth expectations for the region. The proposed project is therefore consistent with the AQMP, and would have no associated impacts.

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b. *Violate any air quality standard or contribute to an existing or projected air quality violation? (2)*

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AND

c. *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? (2)*

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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The South Coast Air Basin (SCAB) is an airshed that regularly exceeds ambient air quality standards (AAQS) – i.e., a non-attainment area. The SCAB is designated a non-attainment area for respirable particulate matter (PM₁₀), fine particulate matter (PM_{2.5}), and ozone (O₃). The SCAB is currently a designated attainment area for the remaining criteria pollutants, which include carbon monoxide (CO), volatile organic compounds (VOC), nitrogen oxides (NO_x), and sulfur dioxide (SO₂). The South Coast Air Quality Management District (SCAQMD) has established Regional Significance Thresholds for these pollutants to compare to a project’s daily emissions for operation and construction activities. In addition, the SCAQMD has developed Localized Significance Thresholds (LSTs) for CO, NO_x, PM₁₀, and PM_{2.5} for stationary sources of air pollutants and for on-site construction induced air pollutants. Mestre Greve Associates (MGA) prepared an Air Quality Assessment for the proposed project (dated March 13, 2012) to compare the project’s emissions with the SCAQMD’s regional and localized thresholds. The project’s Air Quality Assessment is included as Appendix A of this Initial Study and the discussion below is based on this technical report.

Operation Emissions

The project is not expected to result in a considerable long-term increase in air pollutant emissions. The amount of water pumped from the wells is limited by groundwater pumping rights. Therefore, there would be no increase in water production due to the project. The project would require periodic delivery of disinfectant agents to the disinfection facility. The sodium hypochlorite tank is expected to require refilling about every 23 days in normal operation and every 13 days during peak operation. The ammonium hydroxide tank is expected to require refilling about every 42 days during normal operation and every 25 days during peak operation. These materials would be delivered by trucks that generate air pollutant emissions. However, these emissions would be well below the SCAQMD significance thresholds and may be partially offset by the reduction or elimination of the current delivery of disinfection agents (chlorine gas cylinders) to the individual well sites.

Operation of the project would require daily inspections of the Centralized Disinfection Facility to ensure that the facility is operating correctly. However, PWP currently visits the Jones Reservoir site on a daily basis to check the existing facilities and the inspection of the Disinfection Facility would be included in this existing activity. Any potential increase in long-term operational air emissions would be considerably less than the SCAQMD Regional and Localized Significance Thresholds. Therefore, operation of the project would not cause or substantially contribute to an existing or projected air quality violation, would not generate pollutants in excess of SCAQMD standards, and would not result in a cumulative considerable net increase of any criteria pollutant. The project’s long-term air quality impacts are thus less than significant.