



● **Board of Directors**
Engineering and Operations Committee

1/12/2010 Board Meeting

8-4

Subject

Appropriate \$2.64 million; award \$1,588,121.55 contract to ERS Industrial Services, Inc. to rehabilitate four filters at the Weymouth plant; and authorize amendment to existing agreement with Montgomery Watson Harza (Approp. 15440)

Description

This action awards a construction contract at the F. E. Weymouth Water Treatment Plant to rebuild four filters that currently exhibit diminished performance, and authorizes subsequent filter demonstration testing. An amendment to an existing professional services agreement is also included to support the construction and testing efforts.

Timing and Urgency

Four filters at the Weymouth plant have been removed from service due to their poor performance, and must be rehabilitated to maintain compliance with current water quality regulations at full plant capacity. The Weymouth plant filters were originally designed decades ago to meet less stringent water quality standards, and have been operated at higher filtration rates than intended, without any major modifications. With four filters out of service, the remaining filters cannot support the plant's full design capacity. Rebuilding the four out-of-compliance filters, as well as the 44 operating filters at Weymouth, will be essential for the plant to maintain reliable operation in the future at the plant's full design capacity. As a first step, this project will retrofit the four off-line filters with different configurations of filter media, underdrains, and troughs, as a full-scale demonstration study. Results will be used to develop the optimal configuration for the future rehabilitation of the remaining 44 filters at the Weymouth plant.

This project has been reviewed with Metropolitan's updated Capital Investment Plan (CIP) prioritization criteria. Staff recommends award of the filter rehabilitation contract at this time to restore the plant's treatment capacity, to facilitate evaluation of future filter retrofit alternatives, and to take advantage of the current highly competitive bidding climate. This project is categorized as an Infrastructure Rehabilitation project and is budgeted within Metropolitan's CIP for fiscal year 2009/10.

Background

The Weymouth plant was placed into service in 1941 with an initial capacity of 100 million gallons per day (mgd), and has been expanded twice to its current capacity of 520 mgd. The plant delivers a blend of waters from the Colorado River and State Water Project to Metropolitan's Central Pool portion of the distribution system.

The 48 filters at the Weymouth plant range in age from 40 to nearly 70 years old. While they were state-of-the-art at the time of their construction, the filters were designed to meet much less stringent performance and water quality standards than exist today. The filters were originally designed to operate at lower filtration rates, using a fine sand mono-media and low backwash rates. Since then, the filters have been retrofitted with a dual filter media composed of anthracite coal and silica sand to enhance performance. However, filter performance is highly constrained by the shallow filter bed depth, which is susceptible to air-binding and media loss, leading to short filter runs.

While it is not feasible to deepen the filter beds due to hydraulic limitations, the modification of other filter components (e.g., troughs, underdrains, etc.) may compensate for the shallow filter depth and support the higher performance expected of the filters.

At the present time, four filters have been removed from service due to severely reduced filter run times and frequent turbidity spiking issues. Staff has investigated the filters and has varied the operating conditions to trouble-shoot the performance issues, but has not been able to rectify the problems through operational changes.

In March 2008, Metropolitan's Board authorized final design of improvements to the four filters, so that the performance of the modified filters may be monitored and evaluated at full-scale. This project provides a unique opportunity to reengineer these filters with slightly different designs of underdrain, media and backwash trough configurations, suitable for full-scale testing and implementation. The ultimate goal is to develop a filter retrofit scheme that will optimize future rehabilitation of the remaining 44 filters at the Weymouth plant.

Weymouth Filter Rehabilitation Demonstration Project – Construction (\$2,335,000)

Specifications No. 1652 for the Weymouth Filter Rehabilitation Demonstration project was advertised for bids on October 26, 2009. As shown in [Attachment 2](#), six bids were received on December 1, 2009. The low bid from ERS Industrial Services, Inc., in the amount of \$1,588,121.55, complies with the requirements of the specifications. The five higher bids ranged from approximately \$2 million to \$3 million. The engineer's estimate was \$2.76 million. Staff believes the difference between the engineer's estimate and the group of low bids reflects the current highly competitive bidding environment. For this contract, Metropolitan has established a Small Business Enterprise (SBE) participation level of at least 22 percent of the total bid amount. ERS Industrial Services, Inc. is a registered SBE firm, and thus achieves 100 percent participation.

This action appropriates \$2,335,000 and awards a \$1,588,121.55 contract to ERS Industrial Services, Inc. to rehabilitate four filters at the Weymouth plant. In addition to the amount of the contract, the appropriated funds include \$20,000 for Metropolitan force shutdown and start-up support; \$254,300 for construction inspection; \$156,000 for technical support by the design consultant, Montgomery Watson Harza (MWH), as discussed below; \$9,000 for mitigation monitoring by Environmental Science Associates (see below); \$97,400 for technical oversight of consultants and project management; and \$210,700 for remaining budget.

Metropolitan staff will perform inspection of the construction contract. For this project, the anticipated cost of inspection and support is approximately 15.8 percent of the total construction cost. Engineering Services' goal for inspection of projects with construction cost less than \$3 million is 9 to 15 percent. The inspection budget on this project exceeds the goal due to the complexity of the retrofit work, and the extensive precautions to be taken to avoid interferences with plant operations.

Full-Scale Demonstration Testing (\$305,000)

Following the completion of construction, Metropolitan staff will conduct a full-scale evaluation of the four modified filters. During the planned one-year test period, staff will operate the filters over a range of conditions, collect data, and assess filter performance with respect to water quality. Staff will also identify physical constraints within the existing filter cells and develop the optimal configuration for rehabilitation of the remaining 44 filters.

This action appropriates \$305,000 to conduct the filter testing program. The work will be conducted by Metropolitan staff, with specialized support by MWH.

Montgomery Watson Harza – Amendment to Existing Agreement

MWH prepared the final design of the Weymouth Filter Rehabilitation Demonstration project. As the Engineer of Record, MWH is recommended to provide technical support during construction and for the testing program. These activities include review of submittals received from the contractor, responding to requests for information, performing the manometer testing during filter underdrain installation, and advising staff on technical issues as they may arise. MWH was selected through a competitive process via Request for Qualifications No. 833, and the design work was performed under a board-authorized agreement. Amendment of the existing MWH

agreement is consistent with the agreement's scope of work and with the planned approach for project implementation. For this agreement, Metropolitan has established an SBE participation level of 18 percent.

This action authorizes an increase of \$300,000 to the existing agreement with MWH, for a new not-to-exceed total of \$1,375,000, to provide technical support during construction and demonstration testing.

Environmental Science Associates – No Action Required

Environmental Science Associates is recommended to provide environmental monitoring services under an existing board-authorized agreement. Due to the specialized nature of these services, no SBE participation was established for this agreement. Environmental Science Associates was selected through a competitive process via Request for Proposals No. 763 to perform environmental planning and permitting support for the Weymouth plant. No amendment to the existing agreement is required at this time. The estimated cost for these services is \$9,000.

Summary

This action appropriates \$2.64 million; awards a \$1,588,121.55 contract to ERS Industrial Services, Inc.; authorizes filter demonstration testing; and authorizes an amendment to the existing agreement with MWH. All work has been evaluated and recommended by Metropolitan's CIP Evaluation Team, and funds have been included in the fiscal year 2009/10 capital budget. See [Attachment 1](#) for the Financial Statement, [Attachment 2](#) for the Abstract of Bids, and [Attachment 3](#) for the Location Map.

This project is consistent with Metropolitan's goals for sustainability by enhancing the reliability of existing treatment facilities in order to maintain reliable water deliveries in the future.

Project Milestones

November 2010 – Completion of construction

February 2012 – Completion of Weymouth Filter Rehabilitation Demonstration testing program

Policy

Metropolitan Water District Administrative Code Section 5108: Appropriations

Metropolitan Water District Administrative Code Section 8121: General Authority of the General Manager to Enter Contracts

California Environmental Quality Act (CEQA)

CEQA determination for Option #1:

The environmental effects of design and construction of the project were evaluated in the F. E. Weymouth Filtration Plant Ozonation Facilities and Site Improvements Program Final Environmental Impact Report (Final EIR), which was certified by the Board on April 12, 2005. The Board also approved the Findings of Fact (Findings), the Statement of Overriding Considerations, the Mitigation Monitoring and Reporting Program (MMRP), and the projects themselves. On December 9, 2009, Addendum No. 3 to the Final EIR was prepared to document the proposed minor modifications to the approved project as detailed in this board letter.

CEQA and the State CEQA Guidelines require the preparation of an addendum to a previously certified EIR if changes or additions are necessary but none of the conditions described in Section 15162 of the State CEQA Guidelines calling for the preparation of a subsequent EIR have occurred (Section 15164 of the State CEQA Guidelines). The proposed modifications to the previously approved project also do not meet any of the conditions requiring the preparation of a supplement to an EIR (State CEQA Guidelines, Section 15163). Instead, the proposed modifications require only minor changes or additions to the evaluation in the certified Final EIR to make it adequate under CEQA. None of the proposed modifications would result in significant adverse impacts beyond those impacts already disclosed in the original Final EIR. Finally, the Board must certify that the addendum reflects Metropolitan's independent judgment and analysis. The current board action is solely based on appropriation of funds and award of construction-related contracts, and not on any changes to the approved

project itself. Hence, the previous environmental documentation acted on by the Board, in conjunction with the proposed action fully complies with CEQA and the State CEQA Guidelines. Accordingly, no further CEQA documentation is necessary for the Board to act on the proposed action. The Addendum is included in [Attachment 4](#).

The CEQA determination is: Certify that Addendum No. 3 to the Final EIR has been completed in compliance with CEQA and the State CEQA Guidelines; certify that the Board has reviewed and considered the information contained in Addendum No. 3 with the Final EIR and find that there is no substantial evidence that the proposed modifications to the previously approved project will create any new significant impacts; certify that the addendum reflects Metropolitan's independent judgment and analysis; and certify Addendum No. 3.

CEQA determination for Option #2:

None required

Board Options

Option #1

Adopt the CEQA determination and

- a. Appropriate \$2.64 million;
- b. Award \$1,588,121.55 construction contract to ERS Industrial Services, Inc., for the Weymouth Filter Rehabilitation Demonstration project, and authorize filter demonstration testing; and
- c. Authorize increase of \$300,000 to the existing agreement with Montgomery Watson Harza, for a new not-to-exceed total of \$1,375,000.

Fiscal Impact: \$2.64 million of budgeted funds under Approp. 15440

Business Analysis: This option would enhance the treatment process reliability and facilitate evaluation of future filter retrofit options at the Weymouth plant.

Option #2

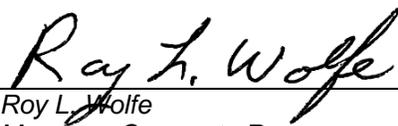
Do not award the construction contract and re-advertise in an attempt to receive more favorable bids.

Fiscal Impact: Unknown

Business Analysis: This option may or may not result in a lower bid, and will delay completion schedule to rehabilitate four filters in compliance with current water quality regulations. .

Staff Recommendation

Option #1


 Roy L. Wolfe
 Manager, Corporate Resources

12/29/2009

Date


 Jeffrey Lightlinger
 General Manager

12/29/2009

Date

[Attachment 1 – Financial Statement](#)

[Attachment 2 – Abstract of Bids](#)

[Attachment 3 – Location Map](#)

[Attachment 4 – EIR Addendum No. 3](#)

Financial Statement for Weymouth Improvements Program – Phase II

A breakdown of Board Action No. 7 for Appropriation No. 15440 for the Weymouth Filter Rehabilitation Demonstration project* is as follows:

	Previous Total Appropriated Amount (Jan. 2010)	Current Board Action No. 7 (Jan. 2010)	New Total Appropriated Amount
Labor			
Studies & Investigations	\$ 452,000	\$ -	\$ 452,000
Owner Costs (Program mgmt, env. monitoring)	527,600	67,000	594,600
Filter Testing Program	-	110,500	110,500
Final Design	152,000	-	152,000
Submittals Review and As-builts	32,000	30,400	62,400
Construction Inspection & Support	6,000	254,300	260,300
Metropolitan Force Construction	197,500	17,200	214,700
Materials and Supplies	309,000	-	309,000
Incidental Expenses	22,000	2,800	24,800
Professional/Technical Services	580,000	-	580,000
Montgomery Watson Harza	-	300,000	300,000
Environmental Science Associates		9,000	9,000
Equipment Use	2,500	-	2,500
Contracts	-	1,588,122	1,588,122
Remaining Budget	265,400	260,700	526,100
Total	\$ 2,546,000	\$ 2,640,000	\$ 5,186,000

Funding Request

Program Name:	Weymouth Improvements Program - Phase II		
Source of Funds:	Revenue Bonds, Replacement and Refurbishment or General Funds		
Appropriation No.:	15440	Board Action No.:	7
Requested Amount:	\$ 2,640,000	Capital Program No.:	15440-I
Total Appropriated Amount:	\$ 5,186,000	Capital Program Page No.:	324
Total Program Estimate:	\$ 37,100,000	Program Goal:	I-Infrastructure & Reliability

*The total amount expended to date on the Weymouth Filter Rehabilitation Demonstration project is approximately \$601,300.

The Metropolitan Water District of Southern California

Abstract of Bids Received on December 1, 2009 at 2:00 P.M.

Specifications No. 1652

**F.E. Weymouth Water Treatment Plant
Filter Rehabilitation Demonstration**

The project consists of removal of filter media within four existing filters; demolition of existing filter piping systems and underdrains; and repair and reconstruction of the filter beds by installing new piping, valves, electrical systems, filter media, and appurtenances. Each of the four rehabilitated filter beds shall have a unique filtering configuration for demonstration purposes.

Engineer's Estimate: \$2.76 million

Bidder and Location	Total	SBE \$	SBE %	Met SBE*
ERS Industrial Services, Inc., Fremont, CA	\$ 1,588,121.55	\$ 1,588,121.55	100%	Yes
J.R. Filanc Construction Company, Inc., Escondido, CA	\$ 2,047,000.00	N/A	N/A	N/A
Environmental Construction, Inc., Woodland Hills, CA	\$ 2,327,793.00	N/A	N/A	N/A
Cora Constructors Inc., Palm Desert, CA	\$ 2,579,000.00	N/A	N/A	N/A
Abhe & Svoboda, Inc., Prior Lake, MN	\$ 2,844,400.00	N/A	N/A	N/A
Metro Builders & Engineers Group, Ltd., Newport Beach, CA	\$ 2,999,990.00	N/A	N/A	N/A

*SBE (Small Business Enterprise) participation set at 22 percent

F.E. Weymouth Water Treatment Plant



**THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA**

**ADDENDUM NO. 3 TO THE
FINAL F.E. WEYMOUTH FILTRATION PLANT
OZONATION FACILITIES AND SITE IMPROVEMENTS PROGRAM
ENVIRONMENTAL IMPACT REPORT**

(State Clearinghouse No. 2004071097)

**For additional information
regarding this document contact:**

**The Metropolitan Water District of Southern California
Environmental Planning Team
700 North Alameda Street
Los Angeles, CA 90012**

Report No. 1244, Addendum No. 3

December 2009

1.0 INTRODUCTION

1.1 Purpose of Addendum No. 3

The purpose of this Addendum is to evaluate the environmental impacts associated with a minor project modification to the previously approved F.E. Weymouth Filtration Plant Ozonation Facilities and Site Improvements Program (Final EIR). The Environmental Impact Report for the Project was certified and the project was approved by The Metropolitan Water District of Southern California (Metropolitan) Board of Directors on April 12, 2005. In addition, Addenda No. 1 and No. 2 to the Final EIR were approved in January 2007 and November 2009, respectively. Subsequent to the certification of the Final EIR and Addenda (Program EIR), a minor modification to the Project was identified.

The Program EIR identified various rehabilitation and upgrade improvements at the Weymouth Water Treatment Plant (Plant) located in La Verne, California. However, the Program EIR did not specifically include filter process upgrades as part of the rehabilitation improvements. In order to upgrade the filters to meet current water quality standards and performance requirements at the Weymouth Plant, the Program EIR would be modified to include the rebuilding of four (4) filters, and potentially up to forty-four (44) filters with new configurations of filter media, under-drain, surface wash, and trough (Project). The environmental impacts associated with various rehabilitation and upgrade improvements were analyzed in the Final EIR. The purpose of Addendum No. 3 is to evaluate the environmental impacts associated with replacing the trough in Filter No. 12 and the remaining forty-six filters, if applicable.

To comply with the California Environmental Quality Act (CEQA) (Public Resources Code Sections 21000 et seq.) and *State CEQA Guidelines* (California Code of Regulations Sections 15000 et seq., hereinafter referred to as "*Guidelines*"), this Addendum No. 3 to the Program EIR has been prepared to evaluate the environmental impacts associated with the proposed Project modifications.

1.2 Regulatory Background

According to Section 15164(a) of the *Guidelines*, the lead agency or responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for the preparation of a subsequent EIR have occurred. Section 15162 of the *Guidelines* lists the conditions that would require the preparation of a subsequent EIR rather than an addendum. These include the following:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the Negative Declaration was adopted, shows any of the following:

- (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;
- (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;
- (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
- (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

Metropolitan evaluated the environmental impacts of the removal and upgrade of these specific troughs, which is described in detail in Section 2.0 of this Addendum, in light of the requirements defined under CEQA and the *Guidelines*. As the CEQA Lead Agency, Metropolitan has determined that none of the above conditions apply and an Addendum to the 2005 Final EIR is the appropriate environmental document for the proposed modification to the Project.

1.3 Incorporation by Reference

The following documents were used in the preparation of this Addendum, and are incorporated herein by reference, consistent with Section 15150 of the *Guidelines*:

- *Final F.E. Weymouth Filtration Plant Ozonation Facilities and Site Improvements Program Environmental Impact Report*. Report No. 1244. The Metropolitan Water District of Southern California. (SCH #2004071097), January 2005.
- *Addendum No. 1 to the Final F.E. Weymouth Filtration Plant Ozonation Facilities and Site Improvements Program Environmental Impact Report*. The Metropolitan Water District of Southern California. (SCH #2004071097), December 2006.
- *Addendum No.2 to the Final F.E. Weymouth Filtration Plant Ozonation Facilities and Site Improvements Program Environmental Impact Report*. The Metropolitan Water District of Southern California. (SCH #2004071097), October 2009.

1.4 Summary of Effects

Section 2.0 of this Addendum describes the potential effects associated with the proposed Project modification. In summary, the proposed Project modification would not result in new or substantially change significant impacts, or involve new or considerably different mitigation measures from those presented in the Program EIR. The proposed modification would not trigger any conditions that require the preparation of a subsequent EIR as described in Section 15162 of the *Guidelines*.

2.0 DESCRIPTION OF THE FILTER BASINS

As noted in the Final EIR and Addenda, the Program EIR involves a number of improvements to the Plant, including modifications to existing plant facilities and construction and operation of new facilities designed to improve plant safety and efficiency and meet increasingly stringent water quality requirements.

The forty-eight filters at Weymouth Treatment Plant range in age from forty to nearly seventy years old and were built in three phases; Filters 1-12 were part of the original Plant construction and went into service in 1941, Filters 13-24 were added in 1949 as part of Expansion No. 1, and the remaining Filters 25-48 were completed in 1962 during Expansion No. 2. The filters were designed to operate at lower filtration and backwash rates using a mono-media of fine sand. The Plant replaced the mono-media with dual media to increase filtration rate and enhance filtered water quality. Surface wash piping for the filters had also been replaced to address the corrosion issues. No additional upgrades have been added; the appurtenances that support the filtration process (e.g., troughs, underdrains) remain unchanged.

The Filter Rehabilitation Demonstration project includes modification of four filters: Filter Nos. 12, 23, 34, and 36. The modifications include demolition and removal of existing water filter piping system underdrains and filter media; repair of existing filter beds; and reconstruction of the filter beds by installing new piping, valves, electrical system, filter media (anthracite, sand, and gravel), and appurtenances. Each of the filter beds would have a unique filtering configuration for demonstration purposes. Table 1 below lists the design configurations.

Upon final construction, the four filters would undergo a 12-month study to monitor and evaluate at full-scale operations the filter performance with respect to water quality and the physical constraint impacts. The study results would indicate the optimal design configuration for the remaining forty-four filters. This Addendum also addresses the potential future modifications to the troughs of the remaining forty-four filters, if applicable. The mitigation measures for Filter No. 12 and 36 trough modifications would be comparable, and are described in Section 2.

Table 1. Filter Rehabilitation Demonstration Design Configuration

	Filter No. 12	Filter No. 23	Filter No. 34	Filter No. 36
Year constructed	1941	1949	1962	1962
Replace media	X	X	X	X
Replace underdrain pipes	X	X		X
Replace and raise trough by 6 to 12 inches	X			
Modify surface wash	X	X	X	
Demolish trough and replace surface wash laterals with grid				X

Metropolitan recently conducted a historical assessment on the filter basins and appurtenances and concluded the troughs are part of the structural integrity of the filter basin. The analysis provided in this Addendum assesses the potential environmental impacts that may result from the removal and upgrade of these troughs.

2.1 Background/Location

2.1.1 The Metropolitan Water District of Southern California

Metropolitan delivers supplemental water to its member agencies located within the coastal plain of southern California. These member agencies consist of 26 cities, municipal water districts, and county water authorities that provide drinking water to approximately 19 million people in parts of Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura counties.

2.1.2 F.E. Weymouth Treatment Plant

The Plant is an existing Metropolitan facility located in the city of La Verne, California, approximately 30 miles northeast of the city of Los Angeles, near the eastern boundary of Los Angeles County. Specifically, the Plant occupies an approximately 135-acre site bordered by Wheeler Avenue on the east, Moreno and Sedalia Avenues on the west, and residential development immediately to the north and south (see Figure 1).

Metropolitan completed the construction of the Weymouth Filtration Plant in 1941. The historic core of the plant retains a high degree of interior and exterior integrity. Recent modifications include renovation and expansion of the Water Softener Building, addition to and upgrades of the Washwater Reclamation Plant (e.g., backwash sump pumps, shafts and flocculators, basins, conduits), construction of the Solids Handling Building and components, the Water Quality Laboratory, various utility shops and storage buildings, and new landscaping and fencing.

The Final EIR included a Historic Resources Technical Report, which identified and evaluated certain Historic Resources that could be affected by the implementation of the Program EIR. Mitigation measures for cultural resources were adopted in the Final EIR to ensure the Program EIR would not result in significant environmental impacts. The following cultural resources mitigation measures were adopted in the Final EIR and remain unchanged:

Cultural Resources

Mitigation Measure C-1

- Metropolitan shall document through photographs and drawings the original and current appearance and design of the interior of the Filter Buildings prior to any demolition or alteration. The documentation shall be maintained in the Metropolitan archives and made available to the public within reason, and taking into account any security requirement, for research purposes.*

Mitigation Measure C-2

- Metropolitan shall consult with a historical architect meeting the Secretary of the Interior's professional qualifications standards (36 CFR Part 61) for the design of the rehabilitation and reuse of Water Softener Buildings 1 and 2. Metropolitan shall use, to the extent necessary and feasible as determined by Metropolitan in consultation with the historical architect, the California Historical Building Code in developing and*

implementing a design for the rehabilitation and reuse of Water Softener Buildings 1 and 2 to protect character-defining features.

3.0 ENVIRONMENTAL SETTING AND ANALYSIS

The Project is located in the city of La Verne, in Los Angeles County. The project site, which is exactly the same as described in the Program EIR, is approximately 135 acres in size and is located west of Wheeler Avenue, east of Sedalia Avenue, North of Highland Drive and Fifth Street, and south of Foothill Boulevard, as depicted in Figure 1, above. The project site is surrounded by residential and commercial land uses in the city of La Verne, as also seen in Figure 1.

The Project calls for upgrading four of the forty-eight filter cells; built in the 1940s and expanded in the 1960s. All four filters would have new filter media. Other additions include: 1) Filter No. 12- concrete trough demolition and replacement, new underdrain system and surface wash system installation; 2) Filter No. 36- concrete trough demolition and replacement with surface grids, new underdrain system; 3) Filter No. 23- new underdrain system and surface wash installation; 4) Filter No. 34-surface wash upgrades. The potentially significant modification proposed is the removal of the concrete trough from Filter No. 12. The trough design changed slightly from 1939 to the 1960s, but is still present in the later filter cells.

The following discussion addresses the effects of the Project relative to the analysis of the original Project provided in the 2005 Final EIR.

3.1 Historical Resources

The Program EIR assessed potential impacts of the approved Project to cultural resources and concluded that construction of the Project would have a less than significant impact with incorporation of mitigation. The following discussion addresses potential impacts from these modifications.

3.1.1 Setting

The National Park Service (NPS) Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER, 1998) identifies the Colorado River Aqueduct (CRA) as a historic engineering property. The American Society of Civil Engineer declared the CRA as one of seven modern civil engineering wonders in the United States in 1955; as a result the CRA and related engineering features, including the Weymouth Filtration Plant, were designated a National Historic Engineering Landmark. Although not listed in the National Register of Historic Places or the California Register of Historical Resources, the Program EIR indicates that the Plant could be eligible for listing as a Historic District on these registers due to its distinctive architectural characteristics and association with the CRA. The city of La Verne identifies the plant site as a Local Landmark.

Upon inspection it appears that the troughs are elements of the filtration basins and of the design of the original filtration system placed in operation in 1941. The basins were identified by NPS during the HABS recordation as character-defining features of the plant. The troughs as elements of the basin cells are more than 50 years old and are of potential historic interest as components of structural engineering technology existing at the time of construction of the Plant and as contributing to the historic integrity of the Plant. As stated in the original EIR, the historic core of the Plant retains a high degree of interior and exterior integrity.

3.1.2 Summary of Potential Impact

The filtration basins are not listed in nor are they determined to be eligible for listing in the Federal or State, or Local Registers of Historical Resources. Review of the filter basins by an architectural historian in November 2009, indicated that the concrete troughs contribute to the design and integrity of the original filtration system and the removal, replacement, and/or demolition would pose a significant change to the design and original material of the filter basins as a function of the primary historical resources on the project site. This finding reflects the finding in the original EIR concerning the overall cultural significance of the Plant.

The filter basins originally were an important element of the plant and its filtration process. The basins are a key design component of the plant. The Weymouth Plant was intended by Metropolitan as a public showpiece of the aqueduct system; the Plant's location in La Verne made it accessible to a large number of the public and the facility was built and equipped as a showcase to demonstrate the filtration process.

In this analysis the integrity of the property is paramount. The seven considerations of integrity include location, design, setting, materials, workmanship, feeling, and association. The Plant's filters currently have high values of these seven aspects of integrity. The design and material have been minimally changed where the filter media and piping system have been replaced in response to maintenance needs. The removal, replacement and/or demolition of the troughs are a change due to design alteration and original filter basin material. Important integrity considerations include continuous facility modifications and equipment; over time, can erode the integrity of the property -- in this case, changing and testing filter cells due to new filtration strategies.

CEQA states:

Generally a project that follows the *Secretary of Interior's Standards for the Treatment of Historic Properties with Guidelines for the Preserving, Rehabilitation, Restoring, and Reconstruction of Historic Buildings* ... shall be considered as mitigated to a level of less than significant impacts on the historical resources (PRC §15064.5(b)(3)).

The Standards do not offer specific guidance on the management of highly technical or engineered properties but focus on preservation, maintenance, and rehabilitation of historic structures. Generally, the Standards are meant to offer guidance on designing and constructing new additions in a manner that does not detract from a property's historic character. [http://www.nps.gov/history/hps/hps/standguide/rehap/rehap_standards.htm].

The changes proposed at the Plant will not affect the appearance of the facility but will alter the physical structure within the filtration basins and impact design elements that were broadly addressed in the original EIR. The filter basins are contributing elements to the historic integrity of the Plant and exhibit changes in engineering design of the Plant over time. The first filter basins were built in 1940, additional basins were added in 1942, and again in 1962. There were subtle differences in each construction stage that reflect the prevailing technical approaches utilized at the time. Two principles of the Standards cited apply when considering the proposed changes: 1) destruction of historic material (e.g., removal of the troughs), and 2) the proposed changes will not be reversible; once the troughs have been removed they cannot be replaced as originally designed. The EIR noted that impacts to the Plant could result in the loss of character-defining features and spaces, which would be a significant effect. The proposed modifications do not increase the severity of such impact nor are they likely to create a new significant impact that goes beyond the original EIR analysis.

3.1.3 Mitigation Measure

The demolition of the troughs may result in the alteration of the physical structure within the filtration cells and impact design elements, which would diminish the historic integrity of the Plant as evaluated in the original EIR. However, Metropolitan would implement and clarify Mitigation Measures C-1 and C-2, as stated above, which would continue to reduce the impact to below a level of significance.

Mitigation Measure C-1 (clarified):

- Metropolitan shall document the original filter basin troughs through collection of historical plans, drawings, and specs. Photographs (35 mm) will be taken of the structure and their setting. These materials will be combined into a HAER-like documentation package and shall be maintained in the Metropolitan's archives and made available to the public within reason, and taking into account any security requirement, for research purposes.*
- Metropolitan shall augment the existing display by incorporating an on-site interpretative display to illustrate the design modifications to be tested. The model should explain the experimentation process and justify the selected modification to be implemented for the 48 filters.*

3.1.4 Level of Project Impact Significance After Mitigation

The proposed modification would not result in a new significant impact or substantially increase the severity of a previously identified significant impact. With incorporation of Mitigation Measures C-1 (clarified), C-1, and C-2 above, Project impacts on historical resources at the Plant would be less than significant.

4.0 REFERENCES

Final F.E. Weymouth Filtration Plant Ozonation Facilities and Site Improvements Program Environmental Impact Report. The Metropolitan Water District of Southern California. Metropolitan Report Number 1244. State Clearinghouse No. 2004071097. March 2005.

Addendum No. 1 to the Final F.E. Weymouth Filtration Plant Ozonation Facilities and Site Improvements Program Environmental Impact Report. The Metropolitan Water District of Southern California. State Clearinghouse No. 2004071097. December 2006.

Addendum No. 2 to the Final F.E. Weymouth Filtration Plant Ozonation Facilities and Site Improvements Program Environmental Impact Report. The Metropolitan Water District of Southern California. State Clearinghouse No. 2004071097. October 2009.

Shatberashvili, Nina. *Colorado River Aqueduct Recording Project.* Historic American Engineering Record, National Park Service. United States Department of the Interior. 1998.

5.0 LIST OF PREPARERS

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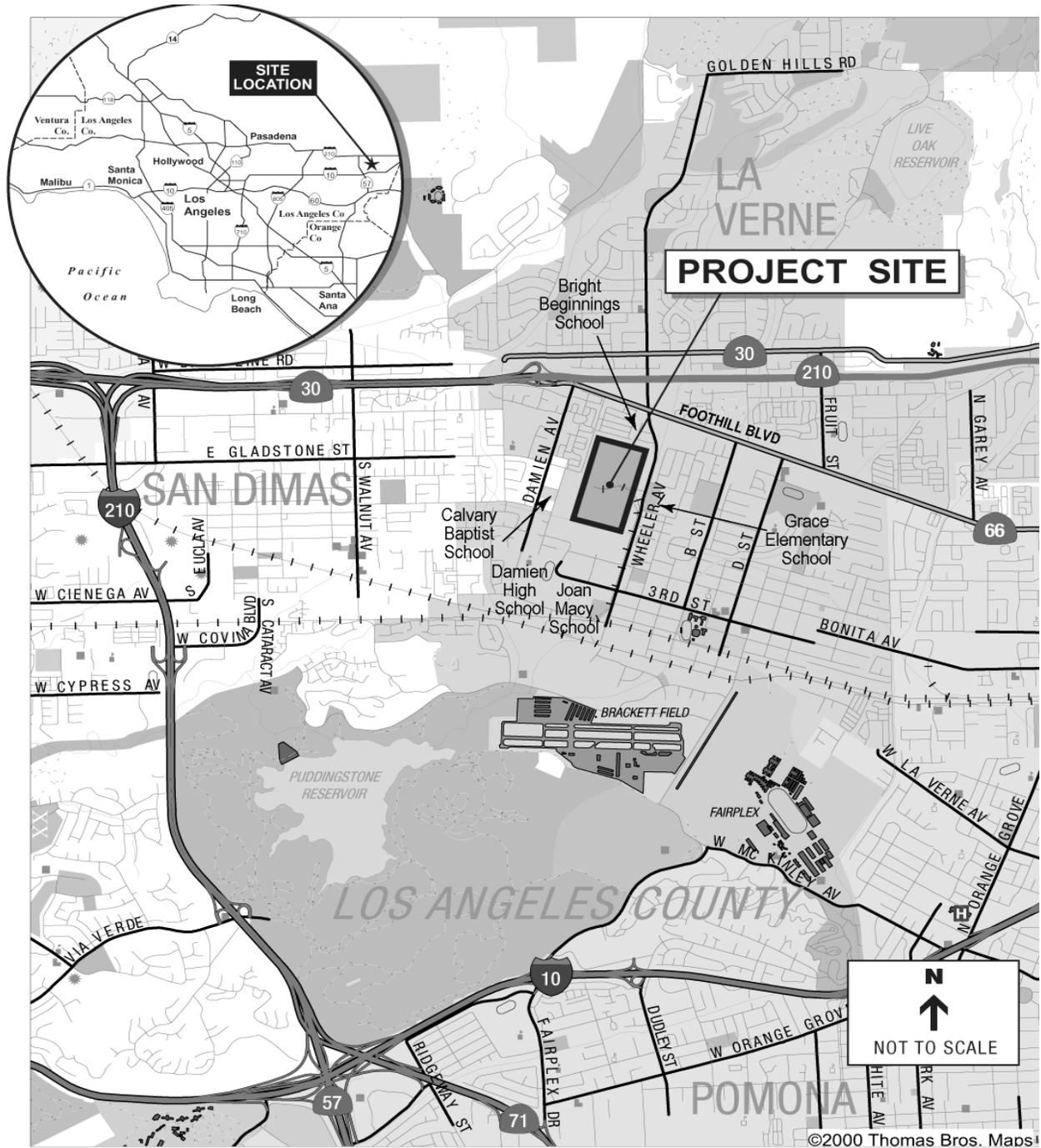
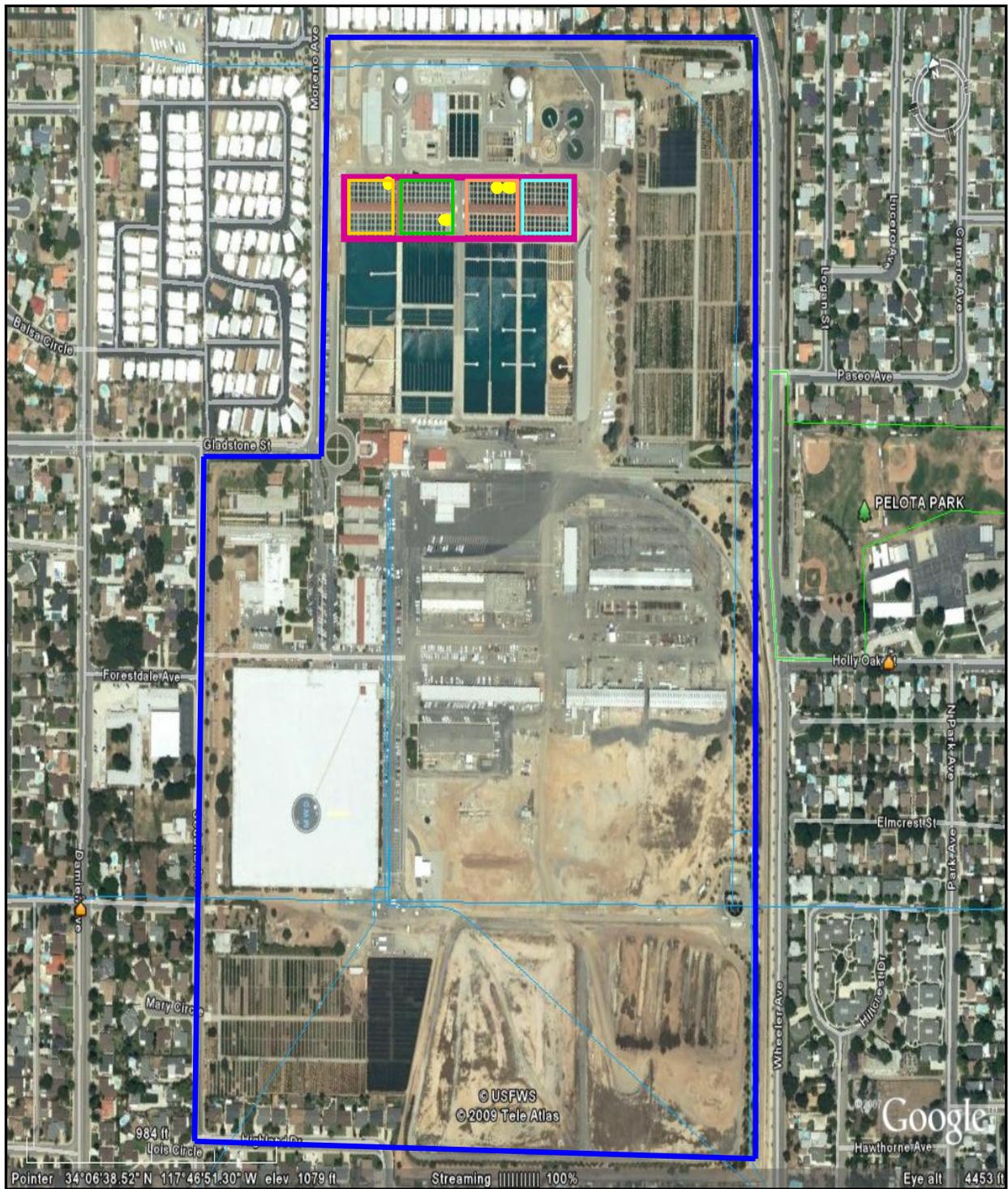


Figure 1
Project Location Map



Legend	
	Filter Basins
	Filter Nos. 1-12 (1941)
	Filter Nos. 13-24 (1949)
	Filter Nos. 25-36 (1962)
	Filter Nos. 37-48 (1962)

Figure 2
Filter Locations



Appearance of filter basins approximately 20 feet away, looking southward.



Appearance of filter basins approximately 5 feet away, looking westward.

Figure 3
Appearance of Filter Basins.



Figure 4
Filter Cell Internals (Concrete Troughs and Surface Wash System)



Figure 5
Filter Cell Internals (Under-Drain system)

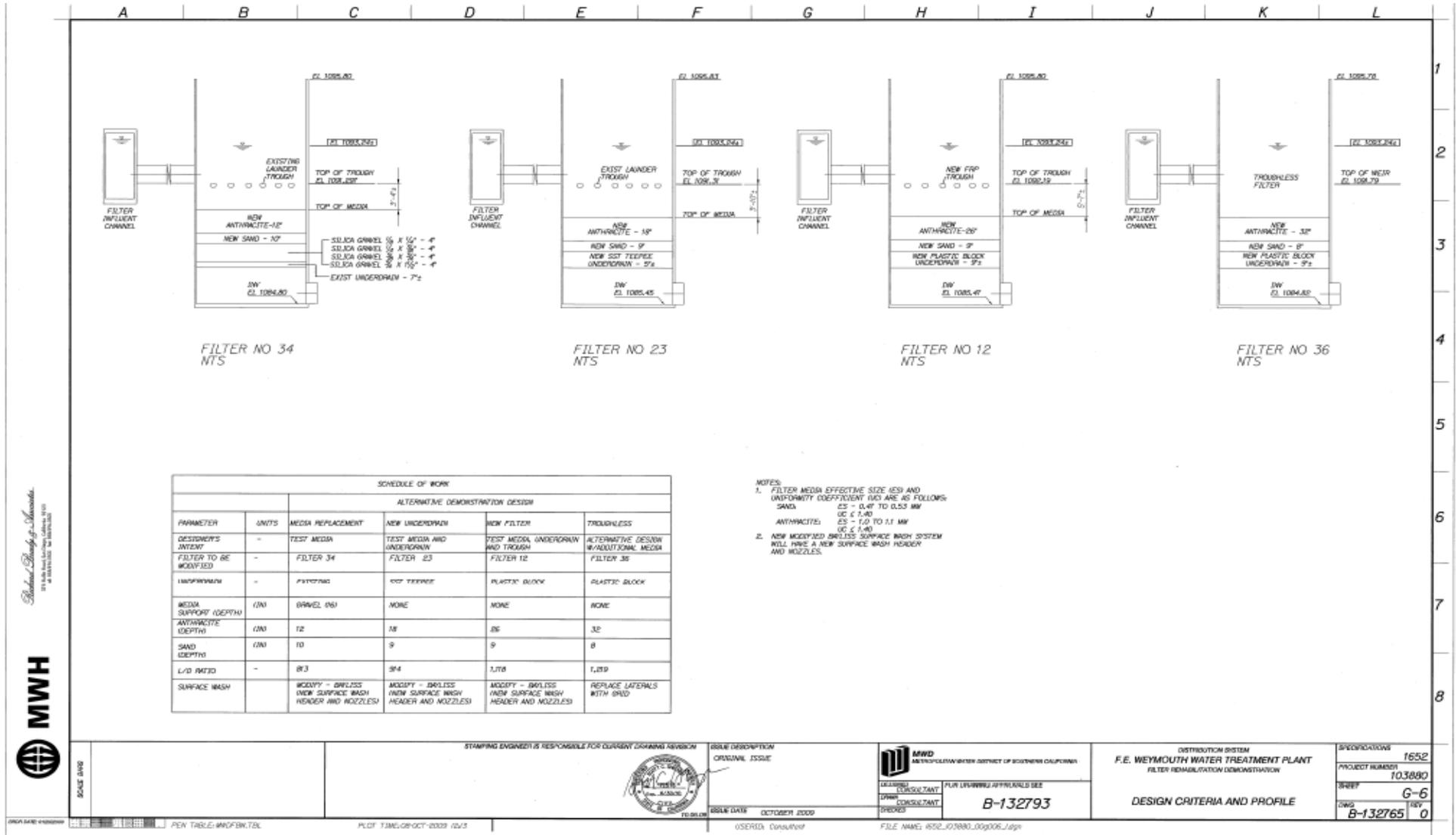


Figure 6

Filter Basin Design Criteria and Profile

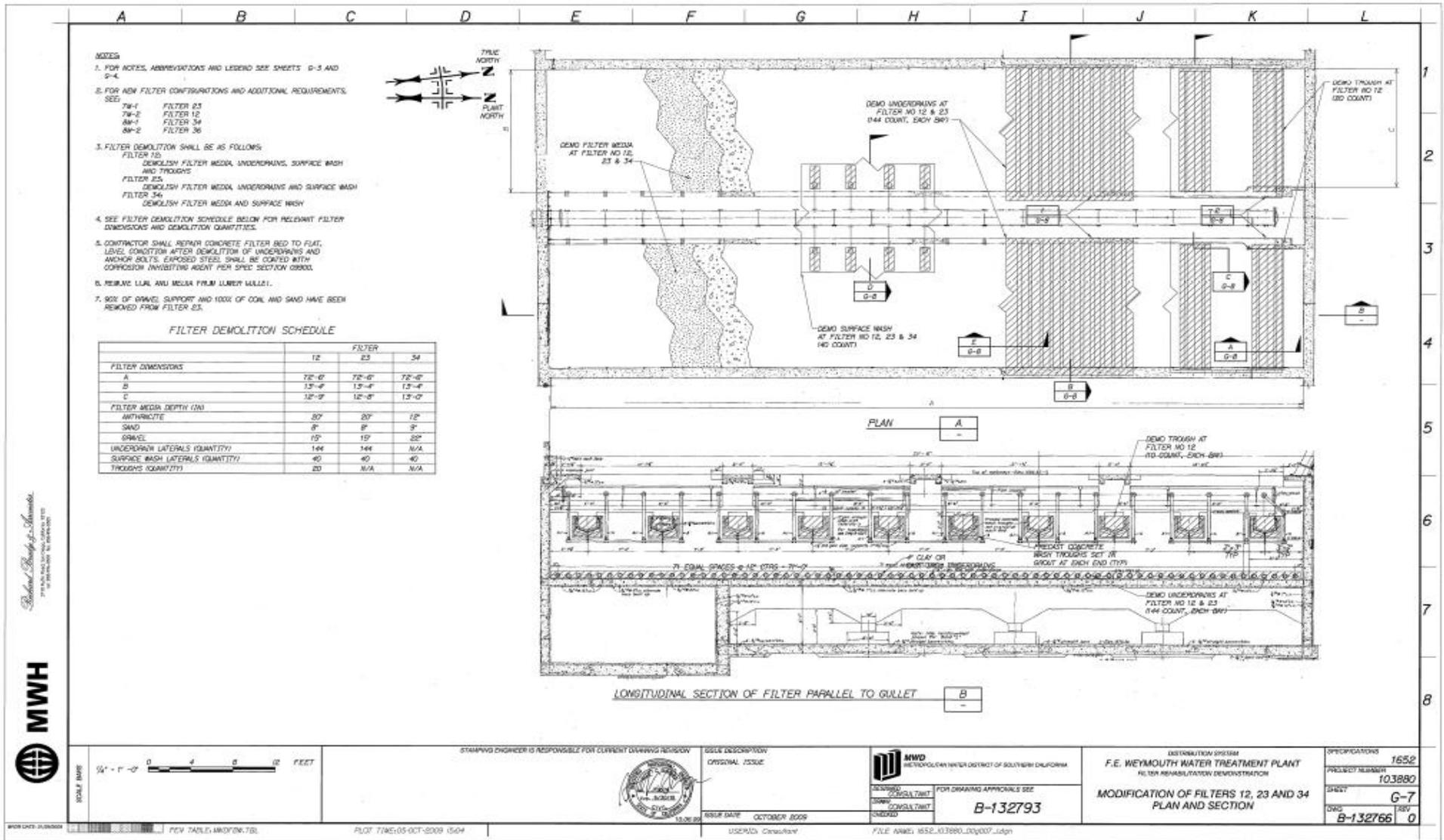
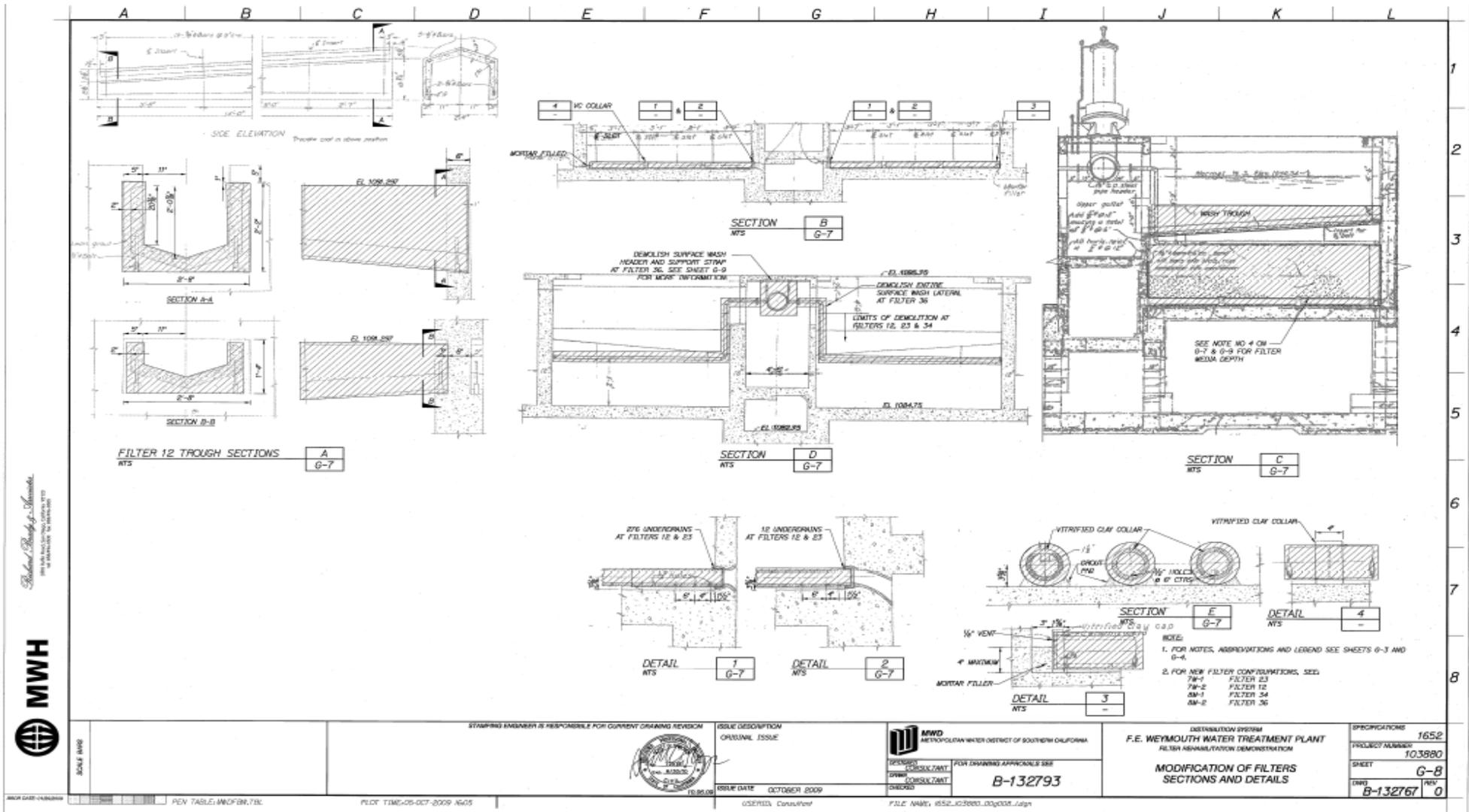


Figure 7
Modification of Filter Nos. 12, 23, and 34, Plan and Section.



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Figure 9

Modification of Filters, Section and Details.

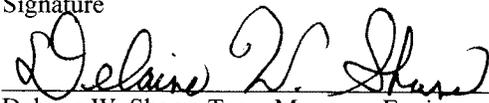
**CEQA ENVIRONMENTAL CHECKLIST FORM
FOR THE PROPOSED MODIFICATIONS TO THE F.E. WEYMOUTH FILTRATION
PLANT OZONATION FACILITIES AND SITE IMPROVEMENTS PROGRAM
ENVIRONMENTAL IMPACT REPORT**

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.
- 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 one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets, if the effect is a "potentially significant impact" or "potentially significant unless mitigated." 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, there WILL NOT be a significant effect in this case because all potentially significant effects (a) have been analyzed adequately in an earlier EIR 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.

Signature



Delaine W. Shane, Team Manager, Environmental Planning Team
The Metropolitan Water District of Southern California

Date

