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Initial Study/ Mitigated Negative Declaration

for the

Meadowlark Water Reclamation Facility

August 2004

Prepared for

Vallecitos Water District
201 Vallecitos De Oro
San Marcos, California 92069

K/J Project No. 014653.02

Initial Study/Mitigated Negative Declaration for the Meadowlark Water Reclamation Facility – Final Changes

The final Mitigated Negative Declaration includes the following changes:

Page 2, Section 1.4, last paragraph, insert new first sentence:

> "Mitigation measures have been identified that would reduce these potential impacts to a less than significant level."

Page 41, Section V b), replace mitigation measure M-1 with following text:

> "MM-Cultural-1: During the construction period, the District shall obtain the services of a qualified archaeologist to monitor construction activities. If the archaeologist finds that cultural resources are encountered during grading, excavation, or construction, the contractor shall cease activities in the immediate area and shall contact the Construction Manager. The Construction Manager shall contact the District and shall jointly determine in consultation with the archaeologist the appropriate course of action, potentially to include contacting Native American observers, removal of the resources, or recommendations for further possible mitigation. Any resulting collections and the associated records shall be curated at a qualified institution in San Diego County that meets the State Historical Resource Commission's *Guidelines for the Curation of Archaeological Collections*, May 7, 1993."

Page 46, Section VII d), insert after NO IMPACT:

> "No releases of hazardous wastes or substances have been reported from current or previous uses at the MRF site, since no such wastes or substances are used at the facility except for chlorine gas, which use is closely controlled in accordance with the District's Risk Management Plan updated as of June 18, 2004. No known or potentially contaminated sites exist in the surrounding area, since the area is vacant or residential in the vicinity of the MRF."

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List of Abbreviations

ADWF	Average Dry Weather Flow
amsl	above mean sea level
BOD	Biochemical Oxygen Demand
BPS	Biofilter Pump Station
CARB	California Air Resources Board
CBC	California Building Code
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
dBA	Decibel, A-weighted scale
EIR	Environmental Impact Report
ESA	Endangered Species Act
EWPCF	Encina Water Pollution Control Facility
HCP	Habitat Conservation Plan
IDLH	Immediately Dangerous to Life and Health
IS/MND	Initial Study/Mitigated Negative Declaration
mgd	million gallons per day
MHCP	Multiple Habitat Conservation Plan

List of Abbreviations (cont'd)

MRF	Meadowlark Water Reclamation Facility
MSCP	Multiple Species Conservation Plan
NCCP	Natural Community Conservation Planning
NOx	Nitrogen Oxides
NPDES	National Pollutant Discharge Elimination System
OSHA	Occupational Safety and Hazard Administration
PM10	Particulate Matter under 10 microns
ppm	parts per million
PWWF	Peak Wet Weather Flow
RAS	Return Activated Sludge
RBCs	Rotating Biological Contactors
RWQCB	Regional Water Quality Control Board
SANDAG	San Diego Association of Governments
SCADA	Supervisory Control and Data Acquisition
SDAPCD	San Diego Air Pollution Control District
TFE	Trickling Filter Effluent
UFC	Uniform Fire Code
USDCESO	Unified San Diego County Emergency Services Organization
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
VOC	Volatile Organic Compounds
WAS	Waste Activated Sludge
WSS	Waste Secondary Sludge

Section 1: Introduction

This Initial Study/Mitigated Negative Declaration (IS/MND) evaluates potential environmental impacts of the Meadowlark Water Reclamation Facility (MRF) project. This section provides a brief description of the proposed project, summarizes the key findings of the IS/MND, and identifies the responsible agencies. The organization of this report is also presented.

1.1 Proposed Project

The MRF is one of two wastewater treatment facilities that serve the Vallecitos Water District (District). The District is an independent special district dedicated to providing water, wastewater and water recycling services to approximately 76,500 people within a 45 square mile area, including the majority of the City of San Marcos, portions of the cities of Escondido and Carlsbad, and surrounding unincorporated areas of San Diego County. The MRF is the only water recycling facility owned and operated by the District, currently treating up to approximately 2.25 million gallons per day (mgd) of wastewater to Title 22 (tertiary) standards. This recycled water is then sold to the City of Carlsbad for irrigation uses by users including the Aviara and La Costa golf courses, Legoland, and Aviara Oaks Middle School.

In order to meet increased projected demands for wastewater treatment in the area served by the facility in the most efficient and environmentally acceptable manner possible, and, as a side benefit, to add to the availability of recycled water, a valuable resource in the region, the District's Master Plan recommends constructing new treatment processes and modifying existing processes at the MRF to increase facility capacity from its current 2.25 mgd to 5.0 mgd average dry weather flow (ADWF) and 8.0 mgd instantaneous peak wet weather flow (PWWF). Additionally, to better manage the plant's treatment processes, modifications of the existing operations/control building are planned.

The upgrade, which is projected to last approximately 18 months, will be contained within the existing boundaries of Meadowlark. Upgrades will include improvements to the treatment process, odor control equipment, and enhanced architectural styles, landscaping, and lighting, as well as removal of some of the old treatment components. The proposed expansion and design is based on the original design in 1980 and subsequent Master Plans including the District's 1997 Master Plan.

1.2 CEQA Criteria for Preparation of an IS/MND

This IS/MND was prepared pursuant to the California Environmental Quality Act (CEQA) 1970, as amended (California Public Resources Code §21000 et seq.), and in accordance with the State CEQA Guidelines (California Code of Regulations §15000 et seq.). The purpose of this IS/MND is to determine whether implementation of the proposed MRF expansion would result in potentially significant effects to the environment; and, if so, whether mitigation measures can be incorporated that will reduce or eliminate the project's potentially significant effects to a less-than-significant level.

An IS/MND may be prepared for a project subject to CEQA when an initial study has identified potential effects on the environment, but:

1. Revisions in the project plans or proposals made by, or agreed to by, the applicant before the proposed Negative Declaration is released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur; and

2. There is no substantial evidence before the agency that the project, as revised, may have a significant effect on the environment (California Public Resources Code §21064.5).

1.3 Previously Prepared CEQA Documentation

In 1991, the District prepared a Master Plan for its water, wastewater, and water recycling systems. A Program Environmental Impact Report (EIR) was prepared addressing the impacts of the proposed Master Plan (Vallecitos, 1991). In 1997, the District updated the Master Plan and prepared a Supplemental EIR (Vallecitos, 1997). Both of these EIRs are incorporated by reference.

The Program and Supplemental EIRs addressed the impacts of all of the elements of the Master Plan, including the initial design and layout of the MRF at 5 mgd. As the previous EIRs were program-level, it was determined that the individual elements, including the specific MRF construction project, would require additional site-specific evaluation under CEQA prior to construction. This IS/MND is intended to serve that purpose.

1.4 Summary of Findings

Based upon the environmental checklist prepared for the project (Section 4) and supporting environmental analysis (Section 5), the MRF expansion would have less than significant impacts or no impacts in the following environmental areas: aesthetics, agriculture resources, air quality, biological resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, population and housing, public services, recreation, transportation/traffic, and utilities and services systems. The proposed project has the potential to have significant impacts in the following areas unless the recommended mitigation measures are incorporated:

- Cultural resources (no resources have been identified at the site, but the potential exists)
- Noise (potential temporary intrusion from construction noise)

According to the State CEQA Guidelines, it is appropriate to prepare an IS/MND for a proposed project when incorporation of the recommended mitigation measures eliminates or reduces potentially significant environmental impacts to a level where clearly no significant impacts would occur. Appendix A presents the Mitigation Monitoring and Reporting Program for these mitigation measures.

1.5 Responsible and Trustee Agencies

This IS/MND is intended to serve as the CEQA document for the proposed project. The District is the lead agency and is responsible for final approval of the project. Additional agencies (listed below) will have the opportunity to review this IS/MND during the public/agency review period and will use this information in consideration of any permits required for the proposed project. The District will consider in its decision-making regarding the proposed project any comments on the IS/MND received during the public/agency review period.

Public agencies with permitting approval or review authority over the proposed project may include:

- California Department of Health Services – Title 22 California Code of Regulations, Article 8 General Requirements for Design, Sections 60333-60355.
- San Diego Regional Water Quality Control Board – Waste Discharge Requirements
- San Diego Air Pollution Control District (SDAPCD) - Related permits for physical, process, and emission changes.

1.6 Project Approval

This IS/MND has been submitted to the State Clearinghouse for distribution to state agencies. A notice of availability of the IS/MND is being published in the local newspaper, The Paper. The IS/MND is available at the following locations for review from _____ to _____.

Vallecitos Water District 201 Vallecitos de Oro San Marcos, CA 92069	San Marcos County Library 3 Civic Center Drive San Marcos, CA 92069	Carlsbad City Library 1775 Dove Lane Carlsbad, CA 92008

Comments on the IS/MND should be submitted in writing before the end of the 30-day comment period, which has been established in accordance with Section 15205(d) of the CEQA Guidelines. In reviewing the IS/MND, affected public agencies and the interested public should focus on the sufficiency of the document in identifying and analyzing the possible impacts on the environment, as well as ways in which the significant effects of the project are proposed to be avoided or mitigated. Following receipt and evaluation of comments from agencies, individuals, and organizations, the District will determine whether any substantial new environmental issues have been raised. If so, further environmental documentation may be required. If not, the comments and environmental documentation will be used by the lead agency in determining whether to approve the proposed project as submitted.

Written comments should be sent to: Vallecitos Water District
201 Vallecitos de Oro
San Marcos, CA 92069
Attention: Cheryl Brandstrom, Engineering Supervisor

1.7 Organization of the Mitigated Negative Declaration

The IS/MND is organized into the following sections:

- **Section 1 – Introduction.** This section provides an introduction and summary of the conclusions of the IS/MND.
- **Section 2 – Project Location and Environmental Setting.** This section provides a discussion of the project location and a summary of the existing environmental conditions.
- **Section 3 – Project Description.** This section provides a discussion of the project purpose and a detailed description of the proposed project.
- **Section 4 – Environmental Checklist.** This section contains the State CEQA environmental checklist form that provides an overview of the potential impacts that may or may not result from implementation of the proposed project.
- **Section 5 – Environmental Analysis.** This section contains an analysis of project-related (direct and indirect) and cumulative environmental impacts identified in the checklist, as well as mitigation measures that have been recommended to eliminate potential significant effects or reduce them to a level that is considered less than significant. This section also includes "mandatory findings of significance" as required by CEQA.
- **Section 6 – List of Preparers.** This section lists report authors, including staff from the District and Kennedy/Jenks Consultants, who assisted in the preparation and review of the IS/MND.
- **Section 7 – References.** This section identifies those references used in preparation of the IS/MND.

Section 2: Project Location and Environmental Setting

This section provides the project location and describes the project site and surrounding areas. It also introduces the discussion of potential environmental concerns.

2.1 Project Location

The MRF is located in the City of Carlsbad within northwest San Diego County, approximately 5 miles southeast of downtown Carlsbad and approximately 3 miles southwest of downtown City of San Marcos. The City of Carlsbad's boundaries encompass roughly 42.2 square miles. The MRF is located approximately 1,500 feet west of the intersection of Rancho Santa Fe Road and Melrose Drive on land owned by the District. Direct access to the site is provided from Corintia Street. Secondary access is available from the southeast corner of the site, near the intersection of La Costa Meadows Drive and Rancho Santa Fe Road. Figure 2-1 presents the project location.

2.2 Environmental Setting

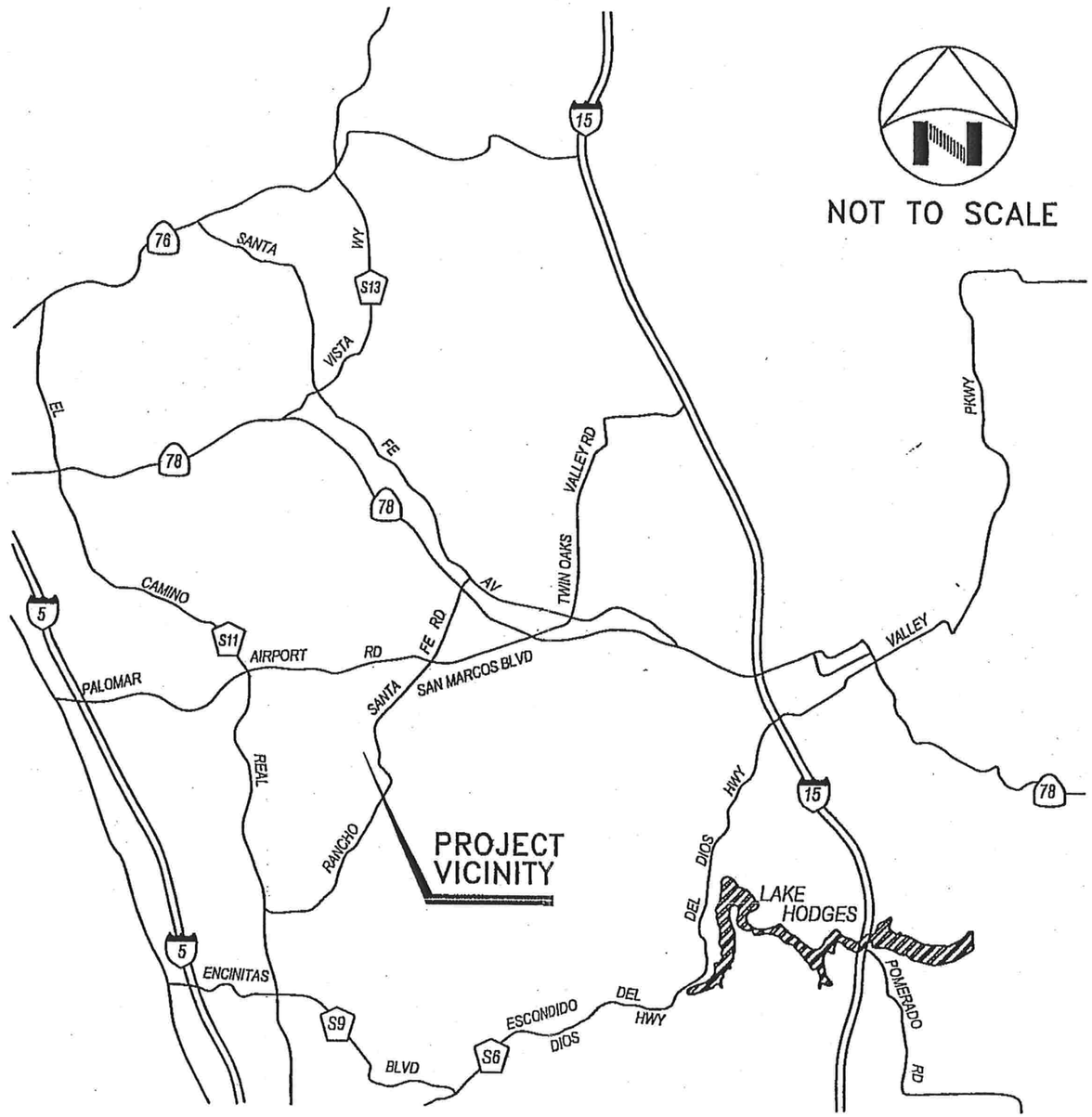
The MRF site consists of 5 acres located within the southeast portion of the City of Carlsbad and near the eastern end of the San Marcos Canyon. Existing facilities on site include a control building, rotating biological contactors, microscreen building, sedimentation tanks, filters, a chemical building, a waste backwash tank, chlorine contact tanks, an effluent pump station, a solids pumping station, and connecting piping. A detailed description of existing facilities is provided in Section 3.2.

Vallecitos is an independent special district dedicated to providing water, wastewater and water recycling services to approximately 76,500 people within 45 square miles encompassing most of the City of San Marcos, portions of the City limits of Escondido and Carlsbad, and the surrounding unincorporated areas. The population surrounding the MRF is located in the City of Carlsbad, a community that has grown dramatically since its incorporation in 1952. The number of City residents grew from 7,000 in 1952 to approximately 83,469 as recorded in the 2001 California Department of Finance Report (City of Carlsbad, 2001). There is no foreseeable growth in the land size of Carlsbad due to the annexation of all lands within the City's sphere of influence, including all county islands. The City's current boundaries are most likely to be the City's ultimate boundaries, with growth occurring only from within (City of Carlsbad, 1994). At build-out, sometime beyond the year 2010, there will be at most 54,599 residential units in Carlsbad, housing approximately 135,000 residents. The dwelling unit cap was ratified by the voters of Carlsbad in the November 1986 election and can only be increased by a majority vote of the people (City of Carlsbad, 2001).

The City of San Marcos boundaries include a large portion of the MRF service area. San Elijo Hills, a newly master planned community development, is located within the MRF service area and all of its wastewater will be treated by MRF.

Industries in the greater Carlsbad and San Marcos areas include shopping centers, auto dealers, hotels, high technology, multimedia and biomedical businesses, electronics, golf apparel and equipment manufacturers, several business and light industrial parks, and numerous land developers building single- and multi-family housing in a variety of community settings.

Land uses immediately adjacent to the property include existing low- to medium-density residential to the north-northwest, designated open space to the south, and planned low- to medium-density residential to the west and east. The MRF site is Zoned U, Public Utilities, which is consistent with the General Plan Land Use Category (City of Carlsbad, 1994).



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Vallecitos Water District
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Vicinity Map

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Figure 2–1

K/J FILE: X:\DWG\014653.02\FIGURE2-1.DWG 1-28-2004

The project site is located at an approximate elevation of 320 feet above mean sea level (amsl). The land surrounding the MRF is a combination of hilly and gently rolling terrain. The area is underlain by hard, crystalline rocks of the Southern California Batholith. Bedrock, alluvium and fill underlie much of the site (WESTEC Services, Inc., 1981). The project area has not experienced any seismic activity in recent history (Jennings, 1994). No known major faults lie on the project site.

There are no existing surface waters in the project area except for the man-made Mahr Reservoir (approximately 1.5 miles southeast of the site) and intermittent flows in San Marcos Creek and its tributaries found adjacent to the southern site boundary. San Marcos Creek, trending northeast to southwest, is located immediately south of the southern project site boundary. The MRF site is protected from the 100-year flood plain of San Marcos Creek by a reinforced concrete wall and rip rap. An EIR completed in 1981 by Westec Services, Inc., for a previous plant expansion indicated that there are no surface water seeps or subsurface water within the project site boundaries (WESTEC Services, Inc., 1981).

The winds and weather of the San Marcos and Carlsbad areas are primarily influenced by the Pacific Ocean and semi-permanent pressure systems that result in dry summers and wet winters. The moderating influence of the ocean is felt more strongly along the immediate coastal plain, and its effects on temperature range, sunshine, and rainfall decrease with distance to the east. Winds in the project area are generally light to moderate, with local terrain being the dominating factor. The climate of the area is typical of southern California, characterized by mild winters and warm summers.

The study area is located in the western-central portion of the San Diego Air Basin, within the jurisdiction of the San Diego Air Pollution Control District (SDAPCD). This air basin has been designated as a non-attainment area for ozone and inhalable particulates, commonly called PM_{10} (SDAPCD, 2000).

Presently, the noise levels near the site are typical of those of residential areas, mostly consisting of vehicular related noise from Rancho Santa Fe Road and Melrose Drive, and residential noise from an adjacent subdivision (Kennedy/Jenks Consultants, June 2001B). The adjacent roadway, Corintia Street, experiences low-density traffic and contributes negligible noise to the neighborhood. The majority of the land surrounding the site is characterized as open space, resulting in low ambient noise levels.

Typical noise levels at the nearest residential area average 44 to 45 decibels (dBA) during both daytime and evening when the MRF's emergency generator is not operating. Noise levels increase to a maximum of 60 dBA when the existing emergency generator is operating.

Section 3: Project Description

The purpose of this section is to provide the project objectives, describe the existing facilities, and present the planned improvements to the MRF.

3.1 Project Objectives

The MRF currently produces approximately 2.0 mgd of tertiary treated water, which is sold for irrigation purposes to users including the Aviara and La Costa golf courses, Legoland, and Aviara Oaks Middle School. The objectives of the proposed expansion are to meet increased projected demands for wastewater treatment in the area served by the facility in the most efficient and environmentally acceptable manner possible, and, as a side benefit, to add to the availability of recycled water, a valuable resource in the region. To meet these objectives, the District proposes to increase the plant's capacity from 2.25 mgd to 5.0 mgd ADWF (8.0 mgd instantaneous PWWF).

3.2 Description of Existing MRF

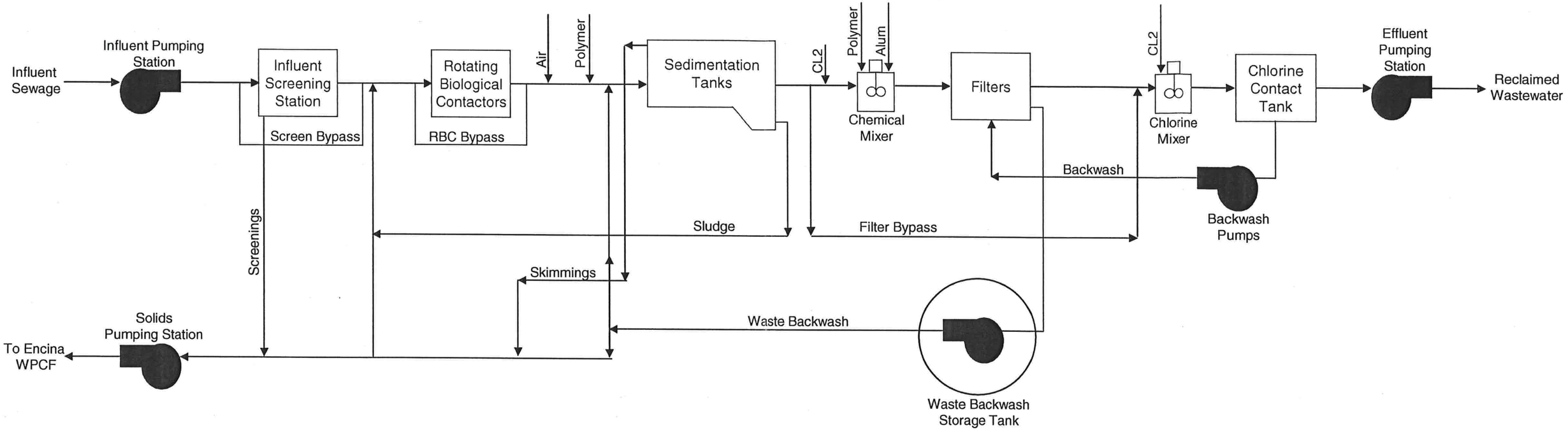
The MRF was originally constructed in 1958 to provide wastewater treatment services for a limited service area. The initial capacity of the MRF was 1.0 mgd. In 1984, the facility was expanded to 2.0 mgd. It has since been rerated to 2.25 mgd. The expanded MRF was designed to provide wastewater treatment in full compliance with Title 22, Chapter 3 of the California Administrative Code in order to utilize the effluent for landscape irrigation. Currently, the MRF treats approximately 2.0 mgd of wastewater from the District and delivers the recycled water to neighboring communities for irrigation purposes.

Normal operating flows for the MRF average less than the maximum design capacity due to the limitations of the current treatment processes. The influent undergoes primary, secondary, and tertiary treatment, all of which consist of various processes as shown in the process schematic in Figure 3-1 and described below.

Wastewater generated in the District is treated at one of two facilities: the MRF or Encina Water Pollution Control Facility (EWPCF). The EWPCF is owned and operated by a Joint Powers Authority, the Encina Wastewater Authority, of which the District is a member. The District is generally divided into two Basins: the Meadowlark Basin and the Encina Basin. Generally, all wastewater generated in the Meadowlark Basin (approximately 30 percent of District's production) is treated at the MRF and wastewater generated in the Encina Basin is treated at the EWPCF. Solids removed by MRF process units are discharged to EWPCF for final removal and treatment. Solids treatment is not provided at MRF.

Wastewater is delivered to the MRF from three sources as follows:

- Local wastewater generated from areas in the immediate vicinity of the MRF (from Meadowlark Basin) reaches the plant in a gravity pipeline that discharges into an on-site influent pump station.
- Wastewater from the Lake San Marcos community and surrounding area flows to the District's Lake San Marcos Lift Station (also a portion of the Meadowlark Basin). The Lake San Marcos Lift Station force main discharges into a pipeline located on Rancho Santa Fe Road that extends to the MRF.
- Lift Station No. 1 is located at the beginning of the District's land outfall pipeline and provides the District with the ability to divert a portion of the Encina Basin service area flow to the MRF. This flow can be combined with flow from the Lake San Marcos community in the Rancho Santa Fe Road pipeline and conveyed to the MRF headworks.



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Schematic of Current Treatment Process

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Figure 3-1

Wastewater enters the MRF via influent pumps (local wastewater portion) and by pipelines extending from the Lake San Marcos area and Lift Station No. 1, and is directed through the preliminary headworks screening facility where solids are removed. The remaining influent is diverted to up to eight rotating biological contactors (RBCs) for primary treatment. The RBCs consist of a series of closely spaced large diameter plastic disks, partially submerged in wastewater. The disks are mounted on shafts that turn slowly. Films of microorganisms grow on the rotating disks that alternately encounter organic material in the wastewater and oxygen in the air. The naturally occurring microorganisms consume organic matter and nutrients from wastewater, reducing the biochemical oxygen demand (BOD). The rotation also serves to control the accumulation of biomass on the disks. Excess biomass disperses/settles rapidly into the effluent flow in the final clarifier and is directed to the secondary clarifiers for settling. Odor control equipment is in service on the RBCs.

Effluent from the RBCs discharges to three secondary clarifiers. The purpose of the secondary clarifiers is to use gravity to remove particulate matter from the wastewater. The secondary clarifiers operation is enhanced with the addition of coagulants chemicals immediately upstream. The clarifiers are rectangular with effluent weirs. The solids are scraped away from the inlet end, transported to the solids pumping station, and delivered to EWPCF.

Subsequently, the secondary effluent receives tertiary treatment, which is accomplished using three 16'x16' dual media tertiary filters. The filtration system also includes pumps and other equipment necessary for periodically backwashing the filters.

After filtration, the tertiary treated effluent is disinfected using chlorine gas injection. Chlorine contact for disinfection is accomplished using a serpentine basin that is divided into two compartments in series.

The disinfected effluent is then directed to an effluent pump station, which delivers the tertiary effluent to either the City of Carlsbad irrigation system for storage and distribution, to the Encina Ocean outfall or the Mahr Reservoir for storage. The Mahr facility is an open reservoir that is used to store excess MRF flows that exceed irrigation demands.

Solids generated throughout the treatment process are transported to the solids pumping station and delivered to the EWPCF for treatment and disposal. Since biosolids treatment does not exist and is not planned at the MRF, the potential for strong odors to be generated by the facility is greatly reduced.

In addition to process facilities, the MRF includes an operations building and a chemical building. The operations building consists of a laboratory, office areas, garage, and restrooms. The chemical building consists of a chemical mixing room, chlorinator room, and chlorine storage room.

3.3 Project Characteristics

In order to meet the increasing demands being placed on the MRF, an expansion from the current capacity of 2.25 mgd to a capacity of 5.0 mgd is necessary. The expansion, consistent with the 1997 Master Plan, would be conducted within the existing plant property, and would accommodate projected wastewater flows from neighboring development and meet current and projected recycled water demands. The MRF would continue to operate throughout the construction process.

3.3.1 Planned Improvements

The proposed expansion includes the following:

- Construction of new facilities including:
  - Primary clarifiers.
  - Bio-roughing filters.
  - Aeration tanks.
  - Blower building.
  - Secondary clarifiers.
  - Secondary effluent pump station
  - Multi-media tertiary filters.
  - Solids disposal pumping system.
  - Expansion of existing operations/control building.
- Upgrades to the existing influent pump station.
- Upgrades to existing chlorine gas facility and disinfection system.
- Installation of chlorine scrubbing units.
- Implementation of an expanded odor control and removal system.
- Implementation of noise abatement procedures.
- Improvements to the Supervisory Control and Data Acquisition (SCADA) system and electrical system.
- Removal and replacement of landscaping.

Additionally, the current fence on the western side of the MRF would be relocated approximately 50 feet farther west. Its current location does not reflect the true property boundary. The specific improvements for each process area are summarized in Table 3-1.

3.3.2 Planned Process Flow

The proposed design for the MRF expansion would allow MRF to optimize wastewater flows that it receives from the three previously mentioned sources (Section 3.2). During peak flow periods, Lift Station No. 1 would be shut off so that the instantaneous peak flow rate of 8 mgd would not be exceeded, Flow control would be used to maintain a 5 mgd average daily flow, minimizing the peak flow to the plant by diverting more flow to EWPCF. At full build-out, for the first two sources combined, the ADWF would be an average of 3.21 mgd and the PWWF would be limited to an instantaneous maximum of 8.0 mgd. During low flow periods, a portion of flow from the third source would be diverted to the MRF to supplement the other two sources in order to maintain an ADWF of 5.0 mgd.

TABLE 3-1
SUMMARY OF PROJECT IMPROVEMENTS

Process Area	Improvements
General	• Increase size and capabilities of the existing SCADA system for expanded automation. • Expand existing operations/control/laboratory building, approximately 1,800 square feet. • Replace existing generator (500 kVA) with a new generator (1500 kVA). • Construct pipeline extending from the effluent pump station to Rancho Santa Fe Road. • Relocate fence to western property boundary. • Remove and replace landscaping. • Implement noise abatement procedures. • Decommission the existing RBCs and existing blower building.
Screening and Headworks	• Construct new headworks building for 2 grinder/auger screens with by-pass channel. • Install hydraulic conduit between the raw wastewater screening in the headworks and the primary clarifiers.
Primary Clarifiers	• Construct three, parallel primary clarifiers (20' x 90'), including covers and fans. • Install three primary sludge pumps. • Install gravity pipe for scum/screening removal.
Biofilter Units and Pump Station	• Construct bio-roughing filter pump station. • Construct two bio-roughing filter units, each to include a vertical turbine solids handling pump plus one standby pump.
Aeration Tanks	• Construct three (80' x 20') parallel aeration tanks. • Install aeration distribution system, including a manifold and multiple header pipes to each tank. • Install blower units.
Blower Building	• Construct new blower gallery.
Secondary Clarifiers	• Construct three new secondary clarifiers for a total of six.
Secondary Effluent Pump Station	• Install three pumps within secondary clarifier effluent channel.
RAS and WAS Pumping	• Install four Return Activated Sludge (RAS) pumping units. • Install piping for Waste Activated Sludge (WAS) conveyance.
Tertiary Filters	• Construct three tertiary, multi-media filters, for a total of six. • Increase backwash return pump capacities.
Disinfection/Dechlorination	• Upgrade chlorine gas building and disinfection system by replacing the existing static meter with new ejector unit. • Add dry chemical scrubber for the existing gas chlorine system. • Add fire suppression system.

Process Area	Improvements
Odor Scrubbing Facilities	• Install an odor conveyance system from the headworks, screening area, solids disposal wet well, primary clarifiers, and aeration basins to the bio-roughing filter fans. • Install a chemical scrubbing odor treatment system.
Solids Disposal and Pumping System	• Construct solids collection wet well within headworks. • Construct solids pumping station, including two progressing cavity type pump units. • Construct conveyance lines from tertiary filters, secondary clarifiers, and primary clarifiers.

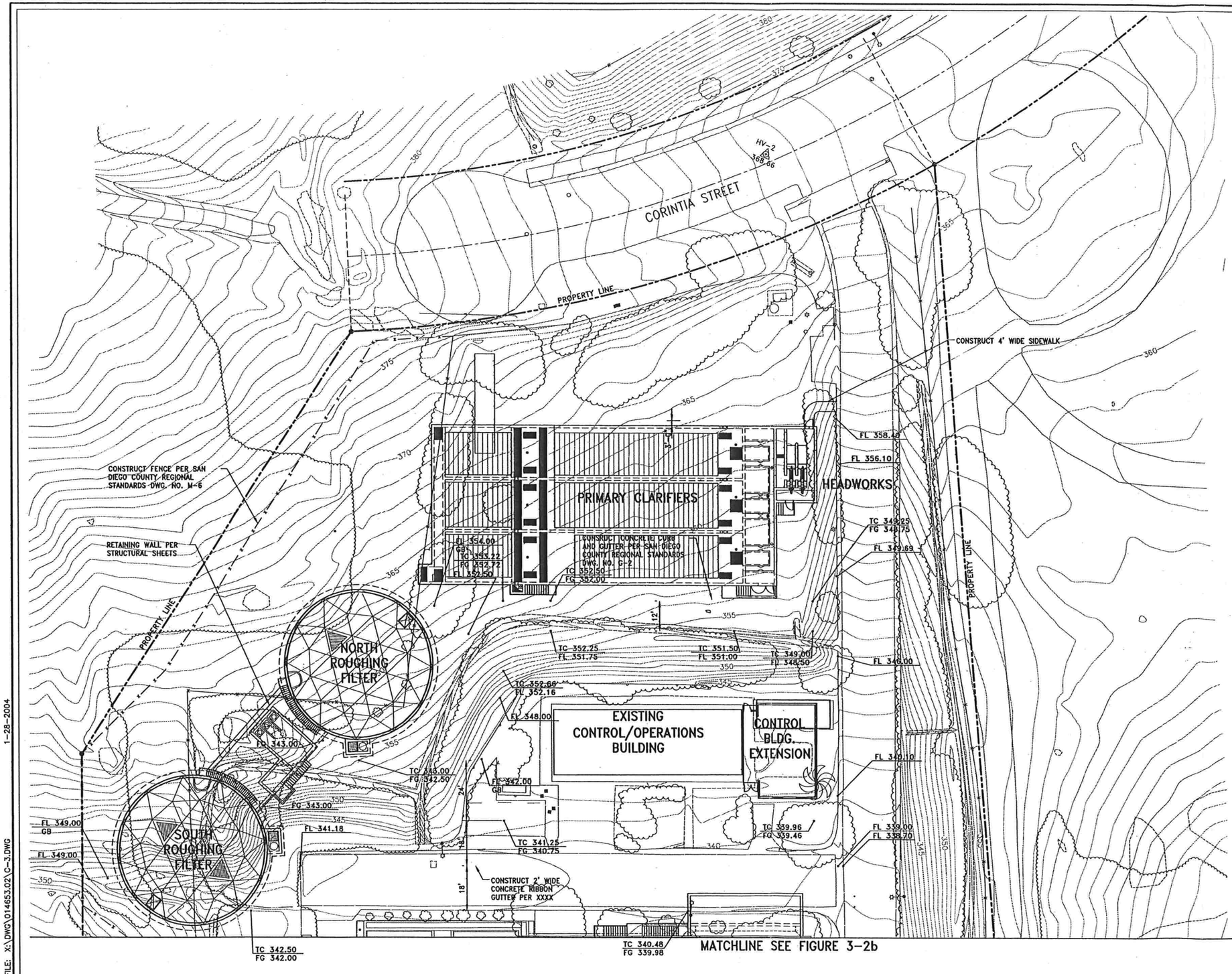
The proposed MRF layout and process schematic are provided in Figures 3-2 and 3-3, respectively. Wastewater would enter the MRF via gravity flow at two locations: the southern and northern ends of the plant. At the southern end, the wastewater stream would be directed to the existing influent pump station where grinders would be added to shred large debris such as rags and plastics, in the raw wastewater. This effluent would next be pumped to the preliminary headworks screening facility and join the wastewater stream from the northern end of the plant. Equipped with a screening conveyor, the headworks would direct all screened debris from the plant flow to an adjacent wet well (solids collection sump) where the plant solids pumping units would convey the plant-wide waste solids stream to EWPCF. The remaining influent would be directed to the primary clarifiers, via a gravity flow pipeline or channel. In-line metering located upstream of the headworks would measure the combined influent flow from the north and south end of the plant.

The three new primary clarifiers would include parallel, rectangular, concrete tanks for the separation of primary solids (sludge) and floatable matter (scum). The primary clarifier tanks would be covered for odor control. Raw wastewater would enter each tank through two slide gates. Flow velocity would be reduced and diffused across the tank cross-section through the use of finger baffles and the position of effluent weirs that overflow to a primary effluent channel. Primary sludge would be collected via cross-collectors and directed to the primary sludge pumps. The existing RBCs would be decommissioned and demolished at a later date.

The primary effluent would be directed to the new biofilter pump station (BPS), which would include a wet-pit structure partitioned into three compartments separated by weirs. The two outer compartments would consist of two roughing/trickling filters with three mixed-flow centrifugal pump units between them. The pumps would direct the flow to the center column of each trickling filter where it would be distributed over the surface through rotating distributor arms, and returned via gravity to the BPS. Each trickling filter would have a cylindrical enclosure and an airtight cover to contain potential odors. In lieu of natural convection currents for ventilation, forced air drawn from the headworks building, primary clarifiers, and aeration basins would supply the oxygen necessary for biological treatment on the media.

Next, the BPS would direct the trickling filter effluent (TFE) to three aeration tanks. The new aeration tanks would include rectangular, concrete tanks for the blending of TFE with return activated sludge (RAS) and for oxygenation. The aeration distribution system would consist of a new blower building, manifold, multiple header pipes to each tank, and diffusers uniformly spaced for efficient transfer of oxygen.

The aeration basin effluent would be directed to the secondary clarifiers, three existing and three proposed for construction. Currently, the clarifiers remove sludge by gravity to a pumping station at a lower elevation. A separate pumping system would be provided for the RAS. The WAS would continue to be drained by gravity. The sludge would be drained by differential water surface elevation from each of



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Vallecitos Water District
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Proposed Layout

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Figure 3-2a

MATCHLINE SEE SHEET FIGURE 3-2a

ODOR SCRUBBERS

ROTATING BIOLOGICAL CONTACTORS (ABANDON IN PLACE)

SECONDARY CLARIFIERS

FL 337.50

PROPERTY LINE

BLOWER GALLERY

AERATION BASINS

TERTIARY FILTERS

PROPERTY LINE

PROPERTY LINE

BOLLARDS PER XXX

SWITCHGEAR BUILDING

EMERGENCY HV GENERATOR PAD

SDG&E TRANSFORMER PAD

6"S

CHEMICAL BUILDING

WASTE BACKWASH PUMP STATION

WASTE BACKWASH TANK

CHLORINE CONTACT TANKS

STORM WATER PUMP STATION

BACKWASH WATER PUMPSTATION

MICROSCREEN BUILDING

INFLUENT GRINDER VAULT & PUMPSTATION

PROPERTY LINE

PROPERTY LINE

0 10 20 40 60
1"=20'

21°54'54"

N

TRUE PROJECT

Kennedy/Jenks Consultants

Vallecitos Water District
Meadowlark Water Reclamation Facility
Expansion Project

Proposed Layout

February 2004
K/J 014653.02

Figure 3-2b

1-28-2004

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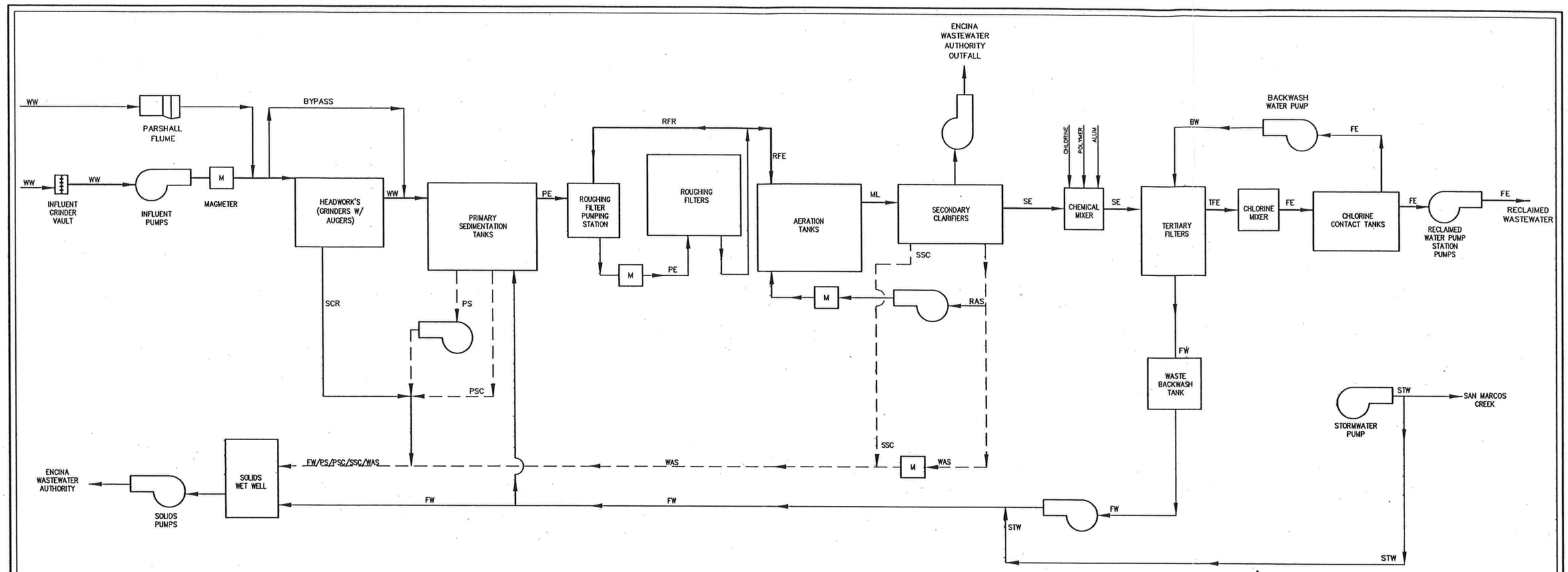


LEGEND

PUMP

FLOW METER — M

PROCESS UNIT

MAIN TREATMENT FLOW

LIQUID FLOW

SOLIDS FLOW

ABBREVIATIONS

BW	BACKWASH WATER
FE	FINAL EFFLUENT
FW	FILTER WASTE
ML	MIXED LIQUOR
PE	PRIMARY EFFLUENT
PS	PRIMARY SLUDGE
PSC	PRIMARY SCUM
RAS	RETURN ACTIVATED SLUDGE
RFE	ROUGHING FILTER EFFLUENT
RFR	ROUGHING FILTER RECYCLE
SCR	SCREENINGS
SE	SECONDARY EFFLUENT
SSC	SECONDARY SCUM
STW	STORMWATER
TFE	TERTIARY FILTERED EFFLUENT
TFW	TERTIARY FILTER WASTE
WAS	WASTE ACTIVATED SLUDGE
WW	WASTEWATER

Kennedy/Jenks Consultants

Vallecitos Water District
Meadowlark Water Reclamation Facility
Expansion Project
Schematic of Proposed Treatment Processes
February 2004
K/J 014653.02

Figure 3-3

K/J FILE: X:\DWG\014653.02\G-5.DWG 1-28-2004

the six clarifiers, through manually adjustable telescoping valves, into a common manifold pipe that supplies four pumps in parallel for return to the aeration tanks inlet channel (RAS pumps). The remaining secondary effluent would be directed to the tertiary treatment filters. When irrigation demands are low, the secondary effluent pump station would direct the effluent into the fail safe line discharging into the Encina outfall.

Three new dual media tertiary filters would be constructed for a total of six, with five on duty and one on standby. The filtration system also includes pumps and other equipment necessary for periodically backwashing the filters. This ancillary equipment would be modified to accommodate the new filters as necessary.

Finally, the tertiary effluent would enter the disinfection system. The existing disinfection system consists of a chlorine gas storage, metering, feed system, and contact through a serpentine basin. Installation of an automatic fire extinguishing system, a mechanical ventilation system, a motorized entrance door, and a chlorine gas scrubber system would upgrade the existing chlorine storage facility to meet current regulations.

The proposed project would incorporate a proactive odor control system with built-in reliability and treatment features (Kennedy/Jenks Consultants, June 2001A). Odorous air would be collected and treated from four process locations: headworks screening area, primary clarifiers, aeration basins, and the biofilters. The odorous air from the first three process areas would be conveyed to the fans of the biofilters with the use of fans and ducting. The exhaust air from the filters would be forced through an enclosed chemical scrubbing foul air treatment system adjacent to the biofilter pump station.

A new effluent pipeline extending from the effluent pump station to Rancho Santa Fe Road is required to accommodate the increased effluent and the proposed recycled water distribution system by the City of Carlsbad. No other off-site improvements associated with this project are proposed.

The proposed project would also include incorporation of noise control features to minimize operational noise impacts to existing and proposed residential developments. Acoustical abatement packages would include equipment enclosures, sound trap louvers, absorption panels, screening panels, and critical silencers. These features are discussed further in Section 5.

Plant access would remain via Corintia Street and the secondary access road in the southeast corner, La Costa Meadows. Two additional plant operators would be employed at the MRF.

3.4 Plant Aesthetics

Currently, residential housing exists to the northwest with planned residential communities to the west and northeast. The proposed project would assist in concealing the MRF from neighboring residences, taking into consideration proposed building heights. The proposed project includes enhanced architectural styles, landscaping, and lighting.

The MRF property consists of sloping topography, elevations ranging between 387 feet amsl along the north property line and 320 feet amsl along the south property line. The existing and proposed residential communities are located at elevations above 400 feet amsl. The existing sloping topography at the MRF facility has assisted in concealing numerous structures. Several of the existing structures have been built into slopes, and the same approach is proposed for various new structures. Table 3-2 represents the heights of the existing and proposed buildings.

TABLE 3-2
SUMMARY OF STRUCTURAL ELEVATIONS

Existing Structures	Height
Control Building	17.5' – West; 14.5' – East
Rotating Biological Contactors (RBCs)	7.5'
Sedimentation Tanks	7.0' – South; 0.3' – North
Tertiary Filters	11.5 – West
Blower Building	11.0' – South
Chemical Building	17.5' – West; 19.5' – East
Microscreen Building	17.5'
Alum/Polymer Tank	16.0'
Waste Backwash Tank	flush with grade
Chlorine Contact Tanks	flush with grade
Effluent Pump Station	flush with grade
Solids Pump Station	flush with grade

Proposed Structures	Height
Headworks	16.0' – South; 12.0' – North
Primary Clarifiers	4.0'
Roughing Filters (2)	31.0' – Southeast; 14.0' – Northwest
Secondary Clarifiers	15.0' – South; 8.0' – North
Aeration Tanks	1.5' – North; 20.0' – South
Blower Gallery	7.0'– West; 20.0' – South

The existing architectural Mission style would be continued with new and expanded facilities. New structures would be slumpstone masonry with wood roof framing. The exterior finishes would be warm tan masonry, red tile roof, and bronze colored windows and doors.

The proposed project would include changes in the existing landscaping scheme within the MRF property. To accommodate new facilities, seven cypress trees and six bushes would be removed. To assist in screening the MRF from existing and planned residences, numerous trees of various types would be added. Additionally, accent shrubs, flowering shrubs, and flowering and spreading groundcover would be utilized to soften the facility's environment and integrated with the proposed adjoining development.

Existing lighting at the MRF consists of onsite roadway lighting and lighting to illuminate buildings and process facilities. Roadway lighting is 90° cutoff type with master photocell and individual switches on each 20' pole. In areas where foot lighting is pertinent (sedimentation basins), a typical conical top reflector "Chinese Hat" style is utilized for higher vertical footcandle spread. Currently, all light fixtures are operated by timers and are on every night to provide security and safe plant access for emergencies or maintenance. Lighting is visible from some nearby residences to the north. The proposed project would follow the original lighting designs, utilizing either a high- or low-pressure sodium type. Lights would be situated on buildings and in locations that would minimize lighting offsite areas and would be focused downward toward the buildings to minimize the illumination area.

3.5 Project Schedule

Construction activities for the MRF expansion are expected to commence in the winter of 2004-05. Construction would continue for approximately 18 months, with anticipated completion in the summer of 2006. Construction of the proposed facility would be staged in a general sequence, allowing minimal impact to the operations and maintenance of the existing MRF.

Section 4: Environmental Checklist

This section presents the project information and provides the environmental checklist used to determine the environmental impacts of the project.

4.1 Project Information

1. **Project Title:** Meadowlark Water Reclamation Facility Expansion
2. **Lead Agency Name and Address:** Vallecitos Water District
   201 Vallecitos de Oro
   San Marcos, CA 92069
3. **Contact Person and Phone Number:** Cheryl Brandstrom (760) 744-0460
4. **Project Location:** Meadowlark Water Reclamation Facility
   7941 Corintia St.
   Carlsbad CA 92009
5. **Project Sponsor's Name and Address:** Same as Lead Agency
6. **General Plan Designation:** Public Utilities
7. **Zoning:** U, Public Utilities
8. **Description of Project:** The project is an expansion of the MRF from 2.25 mgd to 5.0 mgd, including construction of new facilities and improvements to existing ones. All improvements would be located within the existing facility property.
9. **Surrounding Land Use and Setting:** Land uses immediately adjacent to the property consists of existing low- to medium-density residential uses to the north and northeast, designated open space to the south, planned low- to medium-density residential uses to the west and east, and a preserved archaeological resource on the northeast property edge.
10. **Other public agencies whose approval may be required:**
    - **California Department of Health Services:** Title 22 California Code of Regulations, Article 8 General Requirements for Design, Sections 60333-60355.
    - **San Diego Air Pollution Control District:** Related permits for physical, process, and emission changes.
    - **San Diego Regional Water Quality Control Board:** Revised Waste Discharge Requirements.

4.2 Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, all involving less than significant impacts with the recommended mitigation measures incorporated:

- ☒ Aesthetics
- ☐ Agriculture Resources
- ☒ Air Quality
- ☒ Biological Resources
- ☒ Cultural Resources
- ☒ Geology and Soils
- ☒ Hazards and Hazardous Materials
- ☒ Hydrology and Water Quality
- ☒ Land Use and Planning
- ☐ Mineral Resources
- ☒ Noise
- ☐ Population and Housing
- ☐ Public Services
- ☐ Recreation
- ☒ Transportation/Traffic
- ☒ Utilities and Service Systems

4.3 Environmental Checklist

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS: Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐
II. AGRICULTURE RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☐	☒
III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
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)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐
IV. BIOLOGICAL RESOURCES: Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒
V. CULTURAL RESOURCES: Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒
VI. GEOLOGY AND SOILS: Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

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

VIII. HYDROLOGY AND WATER QUALITY: Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☐	☒
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional Sources of polluted runoff?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☐	☐	☒
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☒	☐
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☒	☐
IX. LAND USE AND PLANNING: Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒
X. MINERAL RESOURCES: Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒
XI. NOISE: Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
XII. POPULATION AND HOUSING: Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
XIII. PUBLIC SERVICES				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
objectives for any of the public services:				
• Fire protection?	☐	☐	☐	☒
• Police protection?	☐	☐	☐	☒
• Schools?	☐	☐	☐	☒
• Parks?	☐	☐	☐	☒
• Other public facilities?	☐	☐	☐	☒
XIV. RECREATION				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒
XV. TRANSPORTATION/TRAFFIC: Would the project:				
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	☐	☒	☐
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☒	☐
f) Result in inadequate parking capacity?	☐	☐	☒	☐
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☒
XVI. UTILITIES AND SERVICE SYSTEMS: Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒
XVII. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects?)	☐	☒	☐	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Section 5: Environmental Analysis

The following discusses the environmental issues contained in the Environmental Checklist (Section 4) for the proposed project. A brief explanation is provided for all potential impacts. Following the discussion of each environmental issue, appropriate references are provided to substantiate the conclusions reached in the environmental analysis.

The State CEQA Guidelines define mitigation as:

a) Avoiding the impact altogether by not taking a certain action or parts of an action.

b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation.

c) Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment.

d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.

e) Compensating for the impact by replacing or providing substitute resources or environments.

For purposes of this analysis, if an activity is already required by law, such as secondary containment regulations for hazardous chemical storage or California Occupational Safety and Health Administration (Cal/OSHA) requirements, it is not specifically identified as a mitigation measure and compliance is assumed to be achieved. Additionally, a component of the project that is part of the original design, such as "proactive" noise control features, is not identified as a mitigation measure.

I. AESTHETICS

a,b) **Would the project have a substantial adverse effect on a scenic vista, or substantially damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?**

NO IMPACT. The project site is located at an approximate elevation of 320 feet amsl, with surrounding lands a combination of hilly and gently rolling terrain. Although the plant was once isolated, land adjacent to the MRF is increasingly being developed with residential uses. Currently, low- to medium-density residential uses exist to the north-northwest at higher elevations. Low- to medium-density residential uses are planned for the areas to the west and east of the site. Some of these residential developments would be at higher elevations than the MRF; others would be at lower elevations. Designated open space is present to the south, including a portion of the eastern edge of San Marcos Canyon and San Marcos Creek, which separates the MRF from additional planned residential development.

Due to its location down slope from existing residential development, portions of the MRF are visible from nearby residences and public ways. However, there are no existing scenic vistas in proximity to the site and the MRF does not block views of scenic resources. In addition, the project site is not located near a state scenic highway or historic structure (City of Carlsbad, 1994). Thus, there would be no impact to scenic vistas, resources, highways, or historic structures.

c) **Would the project substantially degrade the existing visual character or quality of the site and its surroundings?**

LESS THAN SIGNIFICANT IMPACT. The proposed MRF expansion and facility improvements would be located on the existing MRF property, designated Public Utilities by the City of Carlsbad's General Plan. Existing facilities are consistent with its public utilities use and include a control building, RBCs, microscreen building, sedimentation tanks, blower building, tertiary filters, chemical building, waste backwash tank, chlorine contact tanks, alum/polymer tank, effluent pump station, and solids pumping station. Looking from the northern end of the site, the area nearest the existing residential dwellings, the control building stands 17.5 feet tall at its western portion and 14.5 feet at its eastern portion, the RBCs are visible just beyond that at a height of 7.5 feet. Further south are the tertiary filters at 11.5 feet, the alum/polymer tanks at 16 feet, the blower building at 11 feet, and the microscreen building at 17.5 feet. The sedimentation tanks appear to slope upwards starting at 0.3 feet on the northern end and increasing to 7 feet at their southern end. Located along the southern property line, the chemical building is the tallest existing structure at 17.5 feet at its west end and 19.5 feet at its east end. All other existing structures are flush with grade.

Proposed facilities would also serve the public utilities purpose and would include the headworks (located just north of the existing control building) sloping from 12 feet (north end) to 16 feet (south end) in height; the primary clarifiers (adjacent to the headworks building) at a height of 4 feet; the roughing filters (southwest of the primary clarifiers) sloping up from 14 feet at the northwest corner to 31 feet at the southeast corner; the secondary clarifiers (south of the existing control building) sloping from 8 feet (north end) to 15 feet (south end); aeration tanks (east of the tertiary filters) sloping from 1.5 feet (north end) to 20.0 feet (south end); and the new blower gallery (east of the aeration basins) sloping from 7.0 feet on the west side to 20.0 feet on the south side. Since the taller facilities are located in the lower portions of the site and are somewhat shielded by the slope, these facilities would not cause significant intrusions into residential sight lines. Considering the similar heights and character of existing structures, the proposed modifications would not negatively alter or degrade the existing visual character of the site. The new facilities would be consistent with existing onsite architecture. Where feasible, elements that complement the architecture of existing and planned residential uses would be included. Additional landscaping would also be utilized to enhance the visual character of the MRF.

Currently, the chemical building is the tallest building, located adjacent to the southern property line. The building was built at an elevation of approximately 330 feet amsl, and stands nearly 20 feet tall. Only two proposed facilities would be taller than the chemical building, the headworks and the roughing filters. The headworks would be constructed at an elevation of 359 feet amsl, with a height of 16 feet. This facility is adjacent to the primary clarifiers near the plant's main entrance. Two roughing filters would be constructed near the western property line within an existing slope. The filters would be constructed at an elevation of 345 feet amsl, and stand 31 feet tall. Neither facility would obstruct views from the existing or planned neighboring residential communities. Each community is located at an elevation of approximately 400 feet amsl or higher. Additionally, the proposed architectural style and landscaping would assist in enhancing each facility's appearance.

Architecture

The existing architectural Mission style would be continued with new and expanded facilities as a means to visually blend the new facilities with the existing site. New structures would be slumpstone masonry with wood roof framing. The roughing filter concrete and dome covers can be colorized. The exterior finishes would be warm tan masonry, with a red tile roof and bronze colored windows and doors.

Landscaping

Currently, the position of the MRF relative to the surrounding topography, and the presence of vegetation and landscaping, screens the visibility of the MRF from nearby residences and public streets. The proposed project would include the removal of seven cypress trees and six medium scale foliage accent shrubs to accommodate the proposed plant expansion. As a result of existing and planned residences on the northwest side of the MRF, a concentration of screening trees would be planted along the west

property line. Tall screening tress, such as Eucalyptus Ficifolia or Red Flowering Gum, and six spreading screening trees, such as California Pepper, would assist in screening the MRF from adjacent residences. The taller screening trees would be concentrated near the roughing biofilters, chemical building, and primary clarifiers and headworks area. The shorter screening trees would be planted near the central portion of the western property line, and again on the top of the slope supporting the roughing filters. Three small accent trees (Crepe Myrtle) along with numerous medium scale foliage accent shrubs (New Zealand Flax), medium scale flowering accent shrubs (Heavenly Bamboo, India Hawthorn, and Fortnight Lily), low flowering groundcover (Purple Trailing Lantana and White Trailing Lantana) and spreading groundcover (Hahn's Ivy, Yellow Trailing Gazania, and lawn turf) would assist with onsite visual enhancement. Using landscaping to screen the facility from adjacent residential development would improve the visual character of the site and its surroundings. Figure 5-1 presents the proposed conceptual landscape plan for this project.

Planned architectural practices and the use of landscaping for screening along the property boundary would result in a less than significant impact to the visual character of the site.

d) **Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?**

LESS THAN SIGNIFICANT IMPACT. Existing lighting at the MRF consists of onsite roadway lighting and lighting to illuminate buildings and process facilities. Roadway lighting is 90° cutoff type with master photocell and individual switches on each pole (approximately 20' high). In areas where foot lighting is necessary (such as the sedimentation basins) a typical conical top reflector 'Chinese hat' style would be utilized for higher vertical footcandle spread. Wall packs have been installed in the pipe galleries. All light fixtures are operated by timers and are on every night to provide security and safe plant access for emergencies or maintenance. Lighting is visible from some nearby residences to the north.

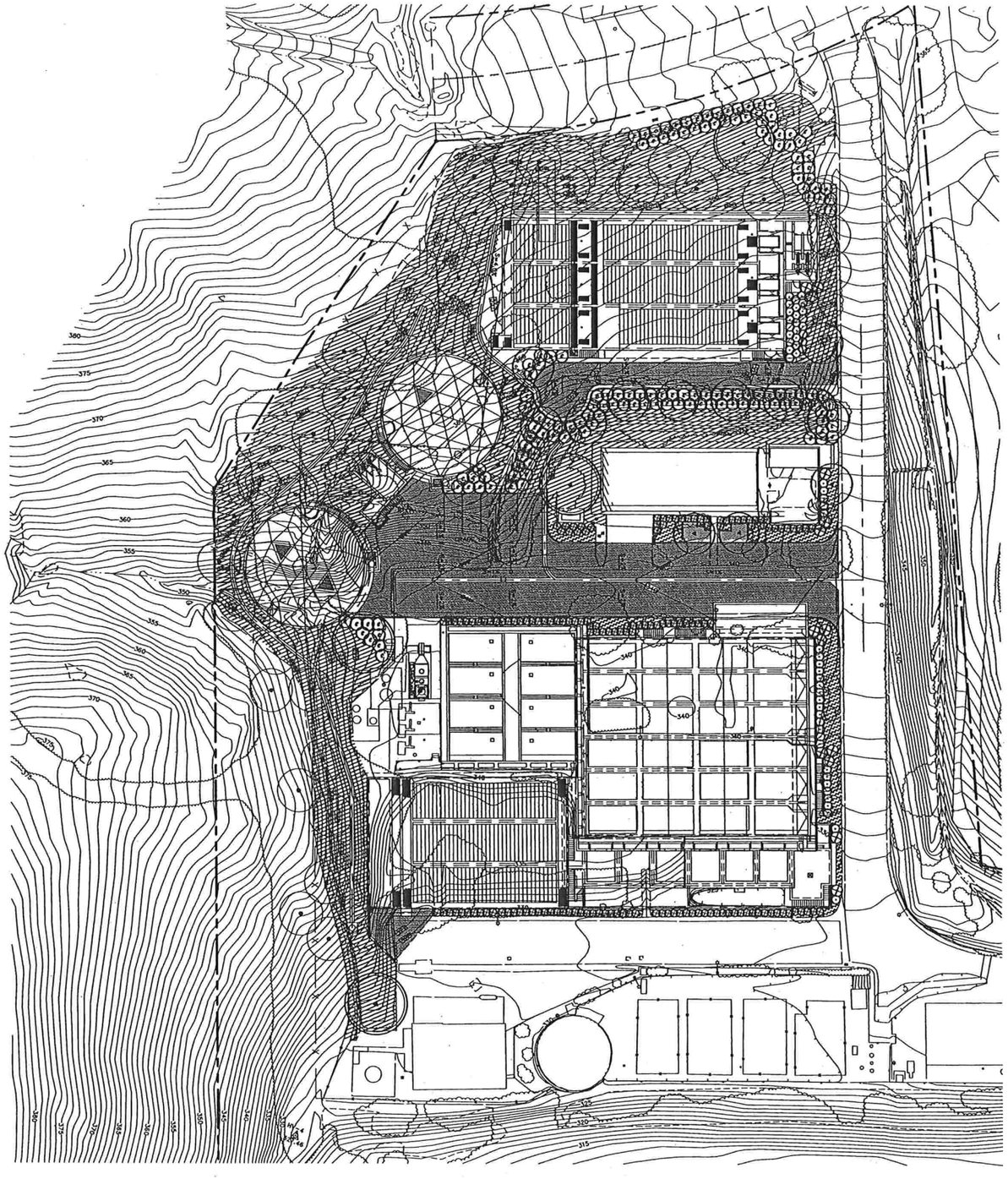
Additional lighting for the new structures would be similar to the existing lighting. New process structures would incorporate either a light on every corner of the facility or a light post to illuminate the facility. Timers would continue to be used. The light source would continue to be a high- or low-pressure sodium type. Additional screening using landscape elements, as described previously, may reduce the light visible from nearby residences.

Structures would be painted in a manner to match existing facilities and would not include reflective materials that may cause glare. Nighttime construction would not be required, and the nature and timing of nighttime lighting is not anticipated to change. Therefore, there would be a less than significant impact associated with light or glare.

II. AGRICULTURE RESOURCES

a, b, c) **Would the project 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; conflict with existing zoning for agricultural use, or a Williamson Act contract; or involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?**

NO IMPACT. Under "Special Planning Considerations" within the General Plan, the City supports agricultural activities while planning for the possible future transition of the land to more urban uses (City of Carlsbad, 1994). However, the proposed project lies within the MRF property boundaries, designated Public Utilities within the General Plan and Zoned Public Utilities by the City. The proposed project would



PLANT MATERIAL LEGEND

SYMBOL	BOTANICAL NAME/COMMON NAME	PERCENTAGE/SIZE
	TALL SCREENING TREE SUCH AS:	
	CASUARINA STRICTA – COAST BEEFWOOD	65%/15 GALLON – 35% 24" BOX
	PINUS ELDARICA – AFGAN PINE	65%/15 GALLON – 35% 24" BOX
	SPREADING SCREENING TREE SUCH AS:	
	FICUS RUBIGINOSA – RUSTYLEAF FIG	100%/24" BOX
	SMALL ACCENT TREE SUCH AS:	
	METROSIDEROS EXCELISUS – NEW ZEALAND CHRISTMAS TREE	100%/24" BOX
	MEDIUM SCALE FOLIAGE ACCENT SHRUBS SUCH AS:	
	PHORMIUM TENAX 'SUNDOWNER' – NEW ZEALAND FLAX	100%/5 GALLON
	MEDIUM SCALE FLOWERING ACCENT SHRUBS SUCH AS:	
	GREVILLEA 'NOELLII' – PINK GREVILLEA	100%/5 GALLON
	DIETES VEGETA – FORTNIGHT LILY	100%/5 GALLON
	LOW FLOWERING GROUNDCOVER SUCH AS:	
	CEANOTHUS GRISEUS HORIZONTALIS 'YANKEE POINT' – CALIFORNIA LILAC	100%/5 GALLON
	ROSMARINUS OFFICINALIS 'PROSTRATUS' – PROSTRATE ROSEMARY	100%/5 GALLON
	SPREADING GROUNDCOVER SUCH AS:	
	DELOSPERMA ALBA – DISNEYLAND ICEPLANT	100%/FLAT PLANTS
	GAZANIA LEUCOLAENA 'SUNRISE YELLOW' – YELLOW GAZANIA	100%/FLAT PLANTS
	LAWN TURF – HYBRID BERMUDA	SOD

GENERAL NOTE:

1. ALL LANDSCAPE AND IRRIGATION SHALL CONFORM TO LOCAL CODES AND APPLICABLE STANDARDS INCLUDING SAN DIEGO REGIONAL STANDARD DRAWINGS.

IRRIGATION CONCEPT

THE LANDSCAPE ASSOCIATED WITH THIS PROJECT SHALL BE IRRIGATED BY MEANS OF AN AUTOMATIC IRRIGATION SYSTEM. THE SYSTEM SHALL INCLUDE THE FOLLOWING:

1. IRRIGATION SHALL BE DESIGNED FOR USE WITH RECYCLED WATER.
2. IRRIGATION SYSTEM SHALL BE PROTECTED BY A BACKFLOW PREVENTION DEVICE.
3. IRRIGATION SYSTEM SHALL BE AN AUTOMATIC, PERMANENT, BELOW GRADE SYSTEM.
4. HOSE BIBBS AND/OR QUICK COUPLING VALVES SHALL BE INCLUDED TO SERVICE PLANTING AREAS.
5. IRRIGATION SYSTEMS SHALL BE SPRAY AND BUBBLER SYSTEMS.
6. ALL IRRIGATION SYSTEMS SHALL BE DESIGNED TO AVOID RUNOFF, SEEPAGE, AND OVERSPRAY ONTO WALLS, PAVING AND ROADS. WATER SHALL BE CHANNELED INTO DRAINAGE STRUCTURES WHERE POSSIBLE.

Garbini & Garbini
LANDSCAPE ARCHITECTURE
URBAN DESIGN
715 "J" STREET, SUITE 106
SAN DIEGO, CALIFORNIA 92101
(619)232-0747 fax(619)232-4510

N

0 30 60 90
1"=30'

Kennedy/Jenks Consultants

Vallecitos Water District
Meadowlark Water Reclamation Facility
Expansion Project

Landscape Concept Plan

February 2004
K/J 014653.02

Figure 5–1

K/J FILE: X:\DWG\014653.02\FIGURES–1.DWG 1–28–2004

not convert prime farmland nor would it result in the conversion of farmland to non-agricultural use. Therefore, the proposed project would have no impact on designated farmland.

III. AIR QUALITY

a, b, c, d) **Would the project conflict with or obstruct implementation of the applicable air quality plan; violate any air quality standard or contribute substantially to an existing or projected air quality violation; 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); or expose sensitive receptors to substantial pollutant concentrations?**

LESS THAN SIGNIFICANT IMPACT. The MRF is located in the San Diego Air Basin, within the jurisdiction of the San Diego Air Pollution Control District (SDAPCD). The mission of the SDAPCD is to protect the public from the harmful effects of air pollution, achieve and maintain air quality standards, foster community involvement, and develop and implement cost-effective programs meeting state and federal mandates, considering environmental and economic impacts. The SDAPCD has ten monitoring stations that continuously record pollution levels and meteorological information in order to forecast pollution levels.

The SDAPCD regulates nine pollutants, six required by the federal government (ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, lead, and inhalable particulates [PM_{10}]) and three required by the state government (sulfates, visibility-reducing particulates, and hydrogen sulfide). California's clean air standards, set by the California Air Resources Board (CARB), are more stringent than federal standards. According to the 2000 "Air Quality in San Diego County" report, the San Diego Air Basin is in non-attainment for two pollutants: ozone and PM_{10}.

Ozone is the chief component of smog, which forms in the atmosphere from the photochemical reaction of volatile organic compounds (VOCs) and oxides of nitrogen (NOx). VOCs and NOx are both emitted by motor vehicles. Non-attainment for ozone is designated as marginal, moderate, serious, or extreme based on the extent of the pollution. Federal standards require the one-hour concentration to be less than 0.125 part per million (ppm), while state standards require the one-hour concentration to be less than 0.09 ppm. For the year 2000, ozone was in 'non-attainment-serious' for both federal and state standards. However, this is due to seven exceedances during 1998. In order to achieve attainment status, each monitoring station cannot exceed the standard more than three times in three years. During the period 1998 to 2001, the Basin did not exceed the federal one-hour ozone standard. The Basin continues to exceed the more stringent state standard, but the number of days exceeding the state standard has decreased dramatically during the past two decades.

Particulate matter is a mixture of solid or liquid particles, composed of chemicals, soot, and dust affecting the respiratory tract and visibility. PM_{10} includes those particles less than 10 microns in diameter. Samples are collected on a 'one every six day' basis. There are both federal and state particulate standards for annual and daily (24-hour) periods. Again, the state standards are much more stringent than federal standards. The federal PM_{10} standards have never been exceeded in San Diego County, while the San Diego Air Basin is in non-attainment for PM_{10}, as are most parts of California. In 1997, the U.S. Environmental Protection Agency (USEPA) added new particulate standards for $PM_{2.5}$, a component of PM_{10} with a smaller diameter and the ability to penetrate deeper into the respiratory system. Monitoring began in 1999 at five locations within the county. Three years of data are needed to determine attainment status. San Diego County was to be designated in 2003, pending the outcome of the review in 2002; however, attainment status has not yet been designated.

SDAPCD's primary goal of protecting the public from harmful effects of air pollution is accomplished through an integrated monitoring, engineering, and compliance operation associated with stationary and mobile sources. The engineering division of the SDAPCD manages a permit system to ensure that potentially polluting operations and industrial equipment meet the emission standards set forth in SDAPCD rules and regulations and sections of the Health and Safety Code. The monitoring and technical services division of the SDAPCD maintains ten monitoring stations that continuously record pollution levels in the San Diego Air Basin. The compliance division of the SDAPCD ensures that regulated sources operate in compliance with permit conditions and all applicable regulations. Additionally, the SDAPCD develops long-term regional strategies to reduce unhealthful pollution levels and conducts community education and pollution prevention programs.

Stationary Sources

Existing operational emissions at MRF are mainly a product of natural biological processes utilized during wastewater treatment. The current treatment process includes covered RBCs, open-air secondary clarifiers, open-air tertiary filters, and open-air chlorine contact tanks. The existing chemical storage facility consists of a chemical mixing room, a chlorination room, and a chlorine storage room, but does not contain a chlorine scrubber. A 500 kVA emergency generator is located at the site.

Operational emissions of the proposed expanded MRF would be very similar to existing emissions. Use of the existing RBCs would be discontinued and replaced with three primary clarifiers, two roughing filters, and three aeration tanks, each enclosed and connected to an odorous air collection/treatment system. The addition of four secondary clarifiers and three tertiary filters would also increase emissions from microbial activity. No modifications to the chlorine contact tanks are proposed; however, installation of a mechanical ventilation system and a chlorine gas scrubber would upgrade the chemical storage facility and would reduce health risks in the unlikely event of an accidental release. The expansion of the plant would require replacing the existing generator with a new 1300 kVA generator. The San Diego Air Pollution Control District has reviewed and approved the installation of the 1000 kVA generator, so no significant air quality impacts would be generated by this source.

Mobile Sources

Expansion of the MRF would create short-term localized impacts on air quality, primarily from earth moving activities, construction equipment, worker vehicles, and materials delivery. Construction activities are anticipated to last approximately 18 months. All earth-moving activities would comply with the best available control measures cited in the City of Carlsbad's General Plan, Air Quality Preservation. The construction activities planned as part of the MRF expansion would not conflict with or obstruct implementation of regional strategies. Additionally, the necessary permit modifications for expansion, physical changes, process changes, and emission modifications would be obtained from the SDAPCD.

Land uses immediately adjacent to the MRF property consist of existing low- to medium-density residential uses to the north-northwest, designated open space to the south, and planned low-to medium-density residential uses to the west and east. The residential uses to the north constitute the closest sensitive receptors. The closest school, San Marcos High School, is located 3 miles northeast. It is not anticipated that substantial pollutant concentrations would be experienced by these sensitive receptors.

While the air quality in the San Diego Air Basin currently exceeds state and federal ambient air quality standards for ozone and PM_{10}, the operational and construction emissions of the MRF expansion would not violate any air quality standard, contribute substantially to an existing or projected air quality violation, or expose sensitive receptors to substantial pollutant concentrations (SDAPCD, 2000; City of Carlsbad, 1994; Kennedy/Jenks Consultants, 2001; T&B Planning Consultants Inc., 2001). During construction, the best available control measures would be incorporated to minimize the short-term construction related impacts, and all relevant operational permit modifications would be acquired. Cumulatively, operational

and construction emissions would not result in a considerable net increase of any criteria pollutant. Therefore, there would be a less than significant impact.

e) **Would the project create objectionable odors affecting a substantial number of people?**

LESS THAN SIGNIFICANT IMPACT. As discussed previously, residential uses are located north of the MRF, with additional residential development planned to the east and west. Objectionable odors are often a concern voiced by residents near wastewater treatment plants.

The existing MRF has a comprehensive odor control approach that includes detailed housekeeping practices, efficient containment of odorous air, conveyance of odorous air to high efficiency chemical odor control scrubbers, and chemical pre-treatment to reduce the influent odor concentrations. Current odor control equipment includes three counter-current packed tower odor scrubbers, each with a fan recirculation pump and the necessary chemical storage. Odorous air treatment control is provided to the influent rotary screens, RBCs, solids wet well, influent pump station, and microscreen building. Odors at the MRF primarily originate from the headworks, occasionally from the secondary clarifiers, or from failure of an odor scrubber. An operator is on-call 24 hours per day to respond to odor complaints. The contact information for the on-call operator has been provided to nearby residents.

The MRF expansion would incorporate a proactive odor control system with built-in reliability and treatment features (Kennedy/Jenks Consultants, June 2001A.) The design criterion for the odor control system would be that there is no detectable odor at the property line. In order to achieve this goal, covers and ventilation to an odor scrubber would be provided to the comminutor/macerator, solids wet well, primary clarifiers, primary effluent channel, roughing filter, and aeration basins. The above process areas will be enclosed to provide containment and removal of the foul air. Odor control fans will provide a negative air pressure in the enclosed process areas to ensure that foul air does not escape to the atmosphere and to convey the foul air to the chemical scrubber for treatment. The odor control system at the plant will be accomplished by construction of a 19,000 cfm chemical scrubber. Sodium hypochlorite and sodium hydroxide will be used as chemical additives. This high efficiency scrubber will remove 99.0+ percent of hydrogen sulfide gas, the primary contributor to odor generation. An odor control study performed for the VWD recommended that the stack height for discharge of the treated air be approximately 22 feet above grade with a minimum stack velocity of 2000 feet per minute. This discharge condition for the treated foul air will further minimize odor control impacts to the surrounding residential community. Additionally, chemical pre-treatment would be used to reduce odors associated with the influent. No odor control is planned for the secondary clarifiers, filters, or chlorine contact tanks, as these processes do not typically result in noticeable odors. The odor control system would collect odorous air from the process locations listed above and convey it to the biofilters. The exhaust air from the filters would be forced through a chemical scrubbing treatment system. In addition, an operator would remain on-call at all times to respond to odor complaints.

With the implementation of the proposed odor control system, there would be a less than significant impact from objectionable odors.

IV. BIOLOGICAL RESOURCES

a) **Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?**

NO IMPACT. The project site is located entirely within the existing MRF property, which has been disturbed by construction and operations activities. The fenced portion of the site consists of areas

completely disturbed and devoid of natural vegetation or extensive animal populations, including any listed, rare, threatened, or endangered species. Plant life on-site is limited to ornamental landscaped areas. There are portions (approximately 0.31 acres) of the MRF property that are outside the existing fence line, primarily along the western side of the plant and northwest corner. These areas have experienced extensive disturbance due to required fuel modification zone management by the District and do not contain any habitat value or sensitive plants. The western fence line would be moved out approximately 50 feet to encompass the currently non-included MRF property. The relocation of the fence would not result in a closer proximity to San Marcos Creek.

The MRF expansion would not result in the destruction of any natural habitat or displacement of animals, but would require the use of two landscaped areas and one barren area for construction of new facilities. No species identified as a candidate, sensitive, or special status in local or regional plans, policies, or regulations, or by the California Department of Fish and Game (CDFG) or U.S. Fish and Wildlife Service (USFWS), exist on the project site (T&B Planning Consultants, Inc., 2001). Therefore, there would be no impact to such species or their respective habitats.

b) **Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?**

NO IMPACT. San Marcos Creek lies to the south of the MRF property line. Riparian scrub is located in this area of San Marcos Creek. As identified in the EIR for the Villages of La Costa, this habitat is considered sensitive by the City of Carlsbad (1999), CDFG, and USFWS due to its overall importance to wildlife as a corridor and water source. However, the proposed project would not encroach into San Marcos Creek habitat, because the MRF expansion would take place within the existing plant footprint, which is already developed and disturbed. Additionally, the federal, state, or county governments have not documented a comprehensive listing of existing species within that area (T&B Planning Consultants, Inc., 2001). No impact to riparian habitat or other sensitive habitat is anticipated.

c) **Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**

NO IMPACT. The proposed project would take place entirely within MRF property boundaries. No wetlands exist within the property; therefore, there would be no impact to wetlands.

d) **Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?**

NO IMPACT. The proposed project would take place entirely within the property boundaries of the existing MRF. The MRF expansion would not include work within a riparian habitat. The project site has been disturbed and supports no migratory, resident species, nor does the site include wildlife corridors or native wildlife nurseries. The project would have no impact on native resident or migratory fish or wildlife species, established native resident or migratory wildlife corridors, or native wildlife nursery sites.

e, f) **Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, or with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?**

NO IMPACT. The proposed project would include the removal of seven cypress tress and six medium scale foliage accent shrubs. Four cypress trees and one shrub would be removed to accommodate the new primary clarifiers and the new control building. Two cypress tress and two shrubs would be removed to accommodate the new aeration tanks, while one shrub would be removed to accommodate the new sedimentation tanks. In order to comply with the City's Tree Ordinance (NS-545), trees removed would be replaced with the same species unless the removed species does not conform to the recommended species approved by the City.

The Multiple Habitat Conservation Program (MHCP) is a comprehensive habitat conservation plan that addresses multiple species needs and the preservation of native vegetation communities for the Cities of Carlsbad, Encinitas, Escondido, Oceanside, San Marcos, Solana Beach, and Vista. The goal of the MHCP is to conserve approximately 19,000 acres of habitat, of which roughly 8,800 acres (46 percent) are already in public ownership and contribute toward the habitat preserve system for the protection of more than 80 rare, threatened, or endangered species (SANDAG, 2003). Coordinated through San Diego Association of Governments (SANDAG), the MHCP is one of three subregional habitat conservation planning programs in the region that, together, will contribute to a coordinated preserve system for the San Diego region and Southern California. With the preserve area defined in advance of development, builders will know where new homes, employment, and commercial centers can be placed. When completed, the habitat preservation areas will serve as a key component of the region's smart growth efforts by preserving habitat and open space and by directing forecasted growth into appropriate areas.

The Multiple Species Conservation Program (MSCP) is a comprehensive habitat conservation plan for southwestern San Diego County. The purpose of the MSCP is to preserve a network of habitat and open space in order to protect bio-diversity and enhance the region's quality of life. The MSCP Plan has been developed cooperatively by participating jurisdictions and special districts in partnership with the wildlife agencies, property owners, and representatives of the development industry and environmental groups. The plan is designed to preserve native vegetation and meet the habitat needs of multiple species, rather than focusing preservation efforts on one species at a time. By identifying priority areas for conservation and other areas for future development, the MSCP will streamline existing permit procedures for development projects that impact habitat.

Many native vegetation communities in the region are considered sensitive because they have been greatly reduced in distribution by development. San Diego County contains over 200 plant and animal species that are federally and/or state listed as endangered, threatened, or rare; proposed or candidates for listing; or otherwise are considered sensitive. Over half of these species occur in the MSCP study area. The MSCP will protect habitat for over 1,000 native and non-native plant species and more than 380 species of fish, amphibians, reptiles, birds, and mammals (City of San Diego, 2003).

In response to the California Natural Community Conservation Planning (NCCP) Act of 1991, the California Endangered Species Act (CESA), and the U.S. Endangered Species Acts (ESA), seven cities (Carlsbad, Encinitas, Escondido, Oceanside, San Marcos, Solana Beach, and Vista) in northwestern San Diego County comprising an NCCP subregion have been involved in preparing MHCP subarea plans. At the current time, only the City of Carlsbad has an adopted plan. The City's Habitat Conservation Plan (HCP) seeks to preserve sensitive biological resources in portions of each preserve while allowing property development in other areas.

Because the proposed project area has already been developed/disturbed, it would not result in any of the effects listed above, and thus would not conflict with any of the HCPs for the area.

The protection of biological resources within the City of Carlsbad's boundaries is also accomplished through the "Open Space and Conservation Element" of the City's General Plan, which provides City-adopted policies and ordinances for the protection of plant/animal, life/habitat, nature preserves, water

features, beaches/bluffs/banks, canyons/hillsides, wetlands, and riparian areas within designated open space areas.

Currently, existing conserved habitat areas within the City of Carlsbad are owned by the State of California. The University of California owns the Dawson-Los Monos Reserve, which is approximately 163 acres within Carlsbad, the CDFG owns the wetland area of Batiquitos Lagoon and Buena Vista Lagoon, and the State Parks Department owns South Carlsbad State Beach, 35 acres along the immediate coastline of Carlsbad.

The City owns several properties that have been proposed for the preserve system. The Lake Calavera property, approximately 266 acres, is being placed in permanent conservation as a mitigation bank for City public works projects. Portions of the Municipal Golf Course, totaling approximately 50 acres, have been committed to permanent conservation. Finally, approximately 100 total acres from the Veteran's Memorial Park and Hub properties will be contributed to permanent conservation. Additionally, privately owned lands throughout the City of Carlsbad have been dedicated to conservation. The majority of these lands are located within residential developments.

The project site does not lie within designated open space, or within either of the City's existing or proposed preserves (City of Carlsbad, 1994). Therefore, the project would have no conflict with local policies or ordinances protecting biological resources. No significant impact to preservation planning is anticipated.

V. CULTURAL RESOURCES

a, c, d) **Would the project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5; directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or disturb any human remains, including those interred outside of formal cemeteries?**

NO IMPACT. No historical resources, paleontological resources, or human remains are known to exist within the MRF property (Westec Services, Inc., 1981). Therefore, the project would have no impact on historical or paleontological resources, geological features, or human remains.

b) **Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15604.5?**

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED. An archaeological site (SDM-W-659) lies in proximity to the site, but outside of the project site. The archaeological site was discovered prior to the 1982 expansion and preserved by relocating the MRF site boundaries. Additionally, a second site was excavated and preserved during that facility expansion. Each site is recorded with the San Diego Museum of Man and San Diego State University (Westec Services, Inc., 1981). None of the proposed expansion activities would take place in the northeast archaeological preserve area.

The following mitigation measure will be implemented to avoid significant impacts:

- MM-Cultural-1: If cultural resources are encountered during grading, excavation, or construction, the contractor will cease activities in the immediate area and contact the Construction Manager. The Construction Manager shall contact the District and jointly determine whether to contact an archaeologist and/or Native American observer, as appropriate, for removal of the resources and recommendations for further possible mitigation.

With implementation of the above mitigation measure the impact would be less than significant.

VI. GEOLOGY AND SOILS

a) **Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:**

i) **Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.**

NO IMPACT. According to the Alquist-Priolo Fault Zoning Maps issued on 1 May 1999, the City of Carlsbad does not contain any Alquist-Priolo Earthquake Fault Zones (California Department of Conservation, 2001). Therefore, there would be no impact.

ii) **Strong seismic ground shaking?**

LESS THAN SIGNIFICANT IMPACT. San Diego County has a number of active faults (Jennings, 1994; City of Carlsbad, 1994; Westec Services, Inc., 1981). From west to east, the major active faults near the MRF are the San Diego Trough, Coronado Bank, and Newport-Inglewood-Rose Canyon Fault Zones offshore, and the Elsinore and San Jacinto Fault Zones onshore.

The San Diego, Coronado, and Newport-Inglewood-Rose Canyon Fault Zones are approximately 34, 26, and 10 miles west of the MRF respectively. The most recent surface rupture for these fault zones occurred within the last 10,000 years, but not within the past 100 years. The Elsinore Fault Zone is approximately 30 miles from the MRF, with the last major rupture occurring on 10 May 1910 at a magnitude of approximately 6. However, no surface rupture was found, and the interval between major ruptures is estimated at 250 years. Finally, the San Jacinto Fault Zone is located more than 80 miles from the MRF, and the most recent surface rupture occurred on 9 April 1968 at a magnitude of 6.5. The estimated interval between surface ruptures is between 100 and 300 years.

Due to the presence of these faults, the project site may be exposed to strong seismic ground shaking during the service life of the MRF. However, all new facilities would be designed in accordance with the seismic requirements of the California Building Code (CBC) that would minimize the damage to structures should ground-shaking occur. As an "essential" facility located within seismic zone 4, the design would need to meet particularly stringent requirements. Due to compliance with the CBC, the impact would be less than significant impact.

iii) **Seismic-related ground failure, including liquefaction?**

LESS THAN SIGNIFICANT IMPACT. Liquefaction is a phenomenon in which the strength and stiffness of a soil is reduced by earthquake shaking or other rapid loading. Liquefaction occurs in saturated soils, soils in which the space between individual particles is completely filled with water, or soils that consist of predominately poorly consolidated fine sand.

The project site is situated at the eastern end of San Marcos Canyon. The area is underlain by hard, crystalline rocks of the Southern California Batholith. Bedrock, alluvium, and fill underlie much of the property. The alluvium present is predominately coarse grained and consists of an admixture of gravel to boulder-sized materials with a clay silt-sand matrix. Fill consists chiefly of silt, sand and gravel and was derived from prior excavation of onsite materials. Much of the soil is underlain by hardpan or bedrock at depths ranging 0.5 to 1.5 feet. Groundwater is believed to be locally present within fractures and joint surfaces of the granite rock, but was not encountered during a site investigation, which explored 9 test pits ranging in depths of 0.5 to 4.0 feet in depth. In the unlikely event groundwater is encountered, any amount would be pumped to the headworks of the plant and treated.

Liquefaction is considered unlikely to occur due to the lack of necessary soil moisture and the relative proximity of the underlying hardpan (GeoSoils, 1981; Westec Services, Inc., 1981). Potential ground-failure impacts would be less than significant.

iv) **Landslides?**

LESS THAN SIGNIFICANT IMPACT. The topography of the site consists of a gentle slope, the highest elevation being 355 feet along the north property line (plant entrance) dropping to 325 along the south property line. Based on prior investigations, no evidence of existing or impending slope instability was discovered (Kennedy/Jenks Consultants, August 2001B; Westec Services, Inc., 1981).

Construction of the new control building and new primary clarifiers would occur near the plant entrance on an existing plane stabilized by compacted fill. Similarly, construction of the aeration tanks would occur at a lower elevation on an existing plane that would be stabilized by compacted fill. Construction of additional secondary clarifiers and additional tertiary filters would occur adjacent to the existing similar structures, stabilized by compacted fill. Construction of two roughing filters and a roughing filter pump station would require the partial removal of an existing slope along the northwest property line, including the removal of bedrock to achieve a suitable, level surface that would be stabilized by compacted fill. Construction of a grinder vault would take place near the southeast gate at a depth of either 8 or 13 feet, on a flat plane and stabilized by fill material.

The absence of steep slopes on the project site and planned stabilization practices would result in a less than significant impact.

b) **Would the project result in substantial soil erosion or the loss of topsoil?**

LESS THAN SIGNIFICANT IMPACT. Expansion of the MRF would require the excavation, fill, and movement of soils at the site. An estimated 20,605 cubic yards of soil would be removed. The excess fill would be hauled off site by the contractor for proper disposal or reuse. Construction activities at the site may create a temporary increase in the potential for on-site soil erosion. However, soil erosion and sediment control measures would be incorporated into standard construction techniques and practices as required by the City of Carlsbad Grading ordinance (City of Carlsbad, 1994). These techniques and practices would include rice or straw wattles, silt fences, sand bags and berms. Additionally, brow ditches would be incorporated as a permanent erosion protection. Following construction, remaining disturbed areas would be landscaped or paved. With the inclusion of standard erosion controls, the impact would be less than significant.

c) **Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?**

LESS THAN SIGNIFICANT IMPACT. As discussed previously, there are no known active landslides on the project site. Additionally, liquefaction is unlikely to occur due to the lack of necessary soil moisture and the relative proximity of the underlying hardpan. Liquefaction induces lateral spreading; therefore, lateral spreading is also unlikely to occur.

The foundation of all new structures constructed as a part of the expansion would be built on a level surface, stabilized with fill material and supported by the existing coarse-grained alluvium and underlying hard bedrock (GeoSoils, 1981). Subsidence or collapse of the proposed new structures is unlikely to occur with the supportive soils found within the MRF property.

Additionally, the structural design of the MRF expansion would follow the recommendations of the geotechnical consultant, including seismic structural design parameters and design recommendation for

earthwork, spread footings, subterranean walls, slabs-on-grade, asphalt pavements, and corrosion and chemical resistance. With these project design considerations and the supportive soils found within the MRF property, the impact would be less than significant.

d) **Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?**

LESS THAN SIGNIFICANT IMPACT. As stated previously, beyond the first 0.5 to 1.5 feet of fill material lie the stable hardpan and bedrock. Previous site investigations identified the soil groupings within the project area as consisting of Cieneba, rocky coarse sand and loam (Bowman, 1973; Recon Regional Environmental Consultants, 1979). These soils are characterized as having a "slight" capability for expansion, resulting in a less than significant impact.

e) **Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?**

NO IMPACT. The project consists of expanding the existing MRF, which treats wastewater from portions of the District's service area. Additionally, the MRF treats wastewater produced at the MRF. No septic tanks or alternative wastewater disposal systems would be constructed, thus there would be no impact.

VII. HAZARDS AND HAZARDOUS MATERIALS

a) **Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?**

LESS THAN SIGNIFICANT IMPACT. Presently, the MRF utilizes chlorine gas for disinfection processes, receiving deliveries approximately twice a month. The proposed plant expansion would allow the MRF to treat 5.0 mgd ADWF and 8.0 mgd PWWF, increasing deliveries to approximately three per month. Chlorine gas usage for a 5.0 mgd wastewater flow would be approximately 1,042 pounds per day (lbs/day). Approximately 1,666 lbs/day would be used during PWWF conditions. The chlorine storage facility would accommodate 12,000 lbs. Chlorine gas is utilized entirely by the disinfection system and disposal would not be required.

Transportation of chlorine gas would continue to be handled through a professional chemical company and delivered to the site via tanker truck. The transportation of chlorine gas would take place on major roads and residential areas would be avoided. Trucks would use La Costa Meadows Drive, providing south gate entrance from the major arterial Rancho Santa Fe Road, in order to avoid existing and planned adjacent residential areas off of Corintia Street. The transportation of the chlorine gas would comply with U.S. Department of Transportation regulations, including placarding. Use of the chlorine gas by MRF would abide by the requirements of the federal and state Occupational Safety and Health Administration (OSHA).

On average, a low chlorine dose of 25 milligrams per liter (mg/l) is injected at three chlorine injection points: one in the influent piping upstream of the influent screens, the second in the influent channel to the filters, and the third in the chlorine contact tank influent chamber. No release of the chlorine gas is anticipated, although should a release occur, the planned installation of a chlorine scrubber system would reduce the chlorine concentration to one-half of the Immediately Dangerous to Life and Health (IDLH) level (Kennedy/Jenks Consultants, August 2001A). The design of the chemical storage facilities would reduce the chances of environmental releases (see following section b), resulting in a less than significant impact.

b) **Would the project create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment?**

LESS THAN SIGNIFICANT IMPACT. The existing chlorine storage building has a reinforced concrete floor, concrete tile roof, and concrete masonry brick walls. The building contains a room for storage of six one-ton chlorine cylinders, a room for the chlorine flow controls, and a chemical mixing room. The storage room is equipped with an overhead crane for moving the chlorine cylinders into position. Each cylinder is set on trunnions to facilitate positioning the cylinder, and each cylinder is provided with tie-down straps to anchor the cylinders in place. Two cylinders are normally in service at all times. The cylinders are mounted on weigh scales to monitor the status of the cylinder while in service.

The existing chlorine gas facility does not meet all the current requirements of the Uniform Fire Code (UFC) and CBC, as it was constructed before these requirements were in place. The building classification is H-7 occupancy and, with proper safety features, complies with UFC. The following upgrades would be made to bring the facility into compliance with the UFC and CBC:

- Install an automatic fire extinguishing system.
- Install a mechanical ventilation system.
- Install a motorized entryway door.
- Install a chlorine gas scrubber.
- Construct an emergency power supply system.

Additionally, all transmission piping would be double containment piping with the inclusion of leak detection alarms.

Operating and reporting procedures would be modified to comply with current codes and regulations. Additional maintenance time to test and maintain the new systems and equipment described above would be allotted. In addition to meeting current regulations, the upgrades would reduce the likelihood of an accidental release and minimize the effect of one, should it occur (Kennedy/Jenks Consultants, August 2001A). With the inclusion of these precautionary measures, an accidental release is unlikely and the impact would be less than significant.

c) **Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?**

NO IMPACT. Chlorine gas would continue to be used at MRF for disinfection purposes. A day care facility is listed in the District's Risk Management Plan (updated June 18, 2004). No schools currently exist, nor are any schools planned, within one-quarter mile of MRF. The La Costa elementary school is located about one mile away. Therefore, there would be no impact.

d) **Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section §65962.5 and, as a result, would it create a significant hazard to the public or the environment?**

NO IMPACT. The MRF is not located within a hazardous materials site compiled pursuant to Government Code Section §65962.5. As a result, there would be no impact.

e) **For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?**

NO IMPACT. The MRF is approximately 5 miles from the City of Carlsbad's airport, McClellan-Palomar Airport. Therefore, there would be no impact.

f) **For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?**

NO IMPACT. There are no private airstrips within the vicinity of the MRF, thus there would be no impact.

g) **Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**

LESS THAN SIGNIFICANT IMPACT. The City of Carlsbad has adopted the "City of Carlsbad Emergency Plan," prepared in conjunction with the Unified San Diego County Emergency Services Organization (USDCESO). The plan addresses the City's planned response to extraordinary emergency situations associated with any type of natural disaster, technological incident, or State of War emergency (City of Carlsbad, 1994). Additionally, the City of Carlsbad belongs to the San Diego County Unified Disaster Council and Joint Powers Authority-Hazardous Materials Response Team, which respond to assist Carlsbad's Fire and Police Departments in a major chemical emergency. Depending on the scale of the emergency, designated emergency centers would be utilized if residential evacuation were necessary. The MRF is not a designated emergency center, but is located in close proximity to a primary road arterial that could be used to move people in the event of an emergency, Rancho Santa Fe Road.

The construction phase of the expansion would last approximately 18 months. During this period, a laydown area would be provided for the storage of construction equipment reducing equipment trips to and from the project site. A haul route, utilizing La Costa Meadows Road to Rancho Santa Fe Road, would be designated to reduce traffic impacts to neighboring residential areas along Corintia Street. Construction vehicles and deliveries exiting the MRF would not be allowed to make a left turn onto Rancho Santa Fe Road.

Currently, the MRF has several means of security. The facility is enclosed by a 6' fence with barbed wiring along the top. During the day, a limited few doors to various buildings/facilities are kept unlocked, with all doors locked and armed during the night. The bottom gate at La Costa Meadows Drive remains closed at all times, and the upper gate at Corintia Street is opened during business hours and closed at night. The District is considering installing a keypad entrance system for the upper gate, allowing the gate to remain closed and locked. Additionally, all lights are on during the evening, set to timers.

Operations at MRF are not anticipated to interfere with the "City of Carlsbad Emergency Plan" or current security measures. However, should an emergency occur, response times may increase if the construction vehicles are utilizing the same routes as emergency response vehicles. This impact would be less than significant.

h) **Would the project expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?**

NO IMPACT. Presently, open space lies adjacent to MRF on the west, east, and south. The District performs fuel management and maintains a firebreak along the perimeter of the fence line. As mentioned previously, the western section of the existing fence would be moved approximately 50 feet outward, one-foot short of the true property boundary, and the existing firebreak would be maintained between the

relocated fence line and MRF. Additionally, residential developments are planned adjacent to the project site to the west and east, reducing the potential for wildland fires. Maintenance of the existing firebreak along with the planned development of adjacent open space results in a less than significant impact.

VIII. HYDROLOGY AND WATER QUALITY

a) **Would the project violate any water quality standards or waste discharge requirements?**

NO IMPACT. The MRF was designed to be in full compliance with the Regional Water Quality Control Board's (RWQCB) discharge requirements and Title 22, Chapter 3 of the California Administrative Code in order to utilize the effluent for landscape irrigation. Currently, the MRF treats approximately 2.0 mgd of wastewater from the District and delivers the recycled water to neighboring communities for irrigation purposes. This reuse is documented in MRF's Report of Waste Discharge issued to the RWQCB. No effluent is currently discharged into nearby San Marcos Creek.

The proposed expansion would allow the MRF to treat 5.0 mgd ADWF and 8.0 mgd PWWF. Excess effluent would be disposed of via the District's existing excess effluent pipeline and the Encina Ocean Outfall. The effluent would meet or exceed the RWQCB water quality requirements and no impacts to surface or groundwater quality are anticipated. The expanded MRF would continue to comply with RWQCB and Title 22, Chapter 3 requirements. Therefore, the project would not violate water quality standards or waste discharge requirements.

b) **Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?**

NO IMPACT. The proposed MRF expansion would not increase water consumption and does not include groundwater extraction or groundwater recharge components. It is not anticipated that groundwater would be encountered; however, in such an event, any amount encountered would be pumped to the headworks of the plant and treated. The proposed project would have no impact on groundwater.

c, d) **Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site; or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?**

LESS THAN SIGNIFICANT IMPACT. The existing MRF drainage pattern flows north to south, following the sloped topography of the property. Currently, there are two storm drains within the MRF property. Storm water from the west side drains into a single storm drain on the west side and is released into the adjacent San Marcos Creek via an outfall at the southwest corner of the property. A catch basin at the bottom of the plant entrance road receives storm water from the central and eastern portions of the property, is diverted to a storm water pump, and released into San Marcos Creek via a second outfall on the southeast corner of the property. Should a spill occur, contaminated water would be temporarily contained in the catch basin and pumped back into the treatment plant with the use of portable sump pumps. Each outfall is consistent with the existing MRF's NPDES permit. The existing drainage pattern would be maintained through the expansion. The project would not include the alteration of the course of the adjacent San Marcos Creek.

There would be some temporary alterations to the existing drainage pattern during construction. Construction of the roughing filters and pump station would alter the sloping topography of the western

property edge. As discussed previously under Geology and Soils, construction activities may create a temporary increase in erosion at the site; however, this would be limited to the construction phase of the project and would be minimized by incorporating soil erosion and control measures as required by the City of Carlsbad Grading ordinance. Once construction is completed, the drainage pattern on the western side of the property would continue to follow the existing storm water drainage pattern. No alterations to the central or eastern property drainage patterns are anticipated.

The existing MRF property consists mainly of impervious surfaces with limited and intermittent landscaped areas. The barren area at the northern edge of the property would accommodate the proposed control building and the primary clarifiers. Once excavated, the slope along the property's west edge would support the roughing filters. Two landscaped areas within the property would be cleared for the aeration tanks and the additional secondary clarifiers. Additional tertiary filters would be constructed adjacent to the existing tertiary filters. Construction of these new facilities would slightly increase the impervious surface area within the MRF property, which would result in a small increase in surface runoff quantities. However, the additional new facilities would not substantially alter the existing drainage pattern in a manner resulting in flooding on- or off-site.

In summary, existing drainage patterns would be altered temporarily, erosion control measures would be incorporated during construction activities, and the increase in impervious surface area would slightly increase surface runoff from the MRF property. Therefore, there would be a less than significant impact.

e) **Would the project create or contribute runoff water, which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?**

LESS THAN SIGNIFICANT IMPACT. As discussed previously, the proposed project would create some new impervious surfaces and result in a slight increase in surface runoff. Stormwater from the MRF is discharged directly into San Marcos Creek through two outfalls. The slight increase in runoff would not exceed the capacity of this system. There would be a less than significant impact.

f) **Would the project otherwise substantially degrade water quality?**

NO IMPACT. The proposed project increases the capacity of the MRF, a tertiary treatment plant. The MRF sells its effluent to the City of Carlsbad, and does not discharge to the immediate environment. The MRF meets both Title 22 requirements for reclamation and reuse and RWQCB discharge requirements, and would continue to do so upon completion of construction. The proposed project would not degrade water quality, thus there would be no impact.

g) **Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?**

NO IMPACT. The project would not include the construction of housing, thus there would be no impact.

h) **Would the project place within a 100-year flood hazard area structures which would impede or redirect flood flows?**

NO IMPACT. The majority of the MRF property is located within the 100-year floodplain of San Marcos Creek. The creek lies 100 yards south of the southern property edge, and flows intermittently to the Batiquitos Lagoon located approximately 3.2 miles downstream. A geologic and soils investigation completed for the previous plant expansion to 2.0 mgd suggested the construction of a flood control device to protect the MRF from a 100-year flood (Westec Services, Inc., 1981). The District constructed a 6.5-foot high flood control wall atop a 3-foot wide earthen berm and reinforced with riprap, 5 to 7.5 feet in

width, along the southern slope adjacent to the creek that prevents flooding flows from affecting MRF structures. None of the proposed new facilities would be built south of the flood control wall or the flood embankment. There would be no impact.

i) **Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?**

LESS THAN SIGNIFICANT IMPACT. The project does not include the construction of a levee or dam, but does include the construction of facilities on the MRF property that lies within the San Marcos Creek 100-year flood plain. As mentioned previously, a flood control wall and a flood embankment were constructed to protect the MRF from a 100-year flood. To date, the MRF has not experienced significant loss, injury or death from flooding. Due to the flood control wall and embankment, catastrophic flooding is unlikely (Westec Services, Inc., 1981). The impact would be less than significant.

j) **Inundation by seiche, tsunami, or mudflow?**

LESS THAN SIGNIFICANT IMPACT. The project site is located at an approximate elevation of 320 feet above sea level and nearly 10 miles inland. The surrounding terrain consists of the San Marcos Canyon and gently rolling hills. The nearest lake, Lake San Marcos, is approximately 3 miles northeast from the project site, and drains into San Marcos Creek that is adjacent to the southern property boundary. Due to the inland location, hilly terrain, and distance from Lake San Marcos, the likelihood of a seiche, tsunami or mudflow affecting the MRF is small (Westec Services, Inc., 1981; Jennings, 1994). The impacts would be less than significant. (Westec Services, Inc., 1981; Jennings, 1994.)

IX. LAND USE AND PLANNING

a) **Would the project physically divide an established community?**

NO IMPACT. The proposed expansion would occur entirely within the existing MRF property boundaries and would not divide an established community. Therefore, there would be no impact.

b) **Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?**

NO IMPACT. The existing MRF is located within the City of Carlsbad. The proposed expansion would occur entirely within the existing MRF property boundaries. The property is designated Public Utilities by the City's General Plan and zoned for Public Utilities (City of Carlsbad, 1994). Expansion of the MRF would not alter the use of the site, which would continue to be consistent with the use of this site for public facilities. There would be no conflict with any applicable land use plan, policy or regulation and therefore no impact.

c) **Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?**

NO IMPACT. Because the proposed project area has already been developed/disturbed, it would not result in any of the effects listed above, and thus would not conflict with any of the HCPs for the area.

Additionally, the "Open Space and Conservation Element" of the City's General Plan provides policies for the development of an open space system as well as the conservation and protection of the City's natural and historic resources (City of Carlsbad, 1994). Once approved, the Habitat Management Plan (HMP)

will also assist in protecting unique biodiversity and maintaining populations of sensitive resources in designated areas. As discussed previously in Section IV, only three preserves currently exist in the City of Carlsbad: Dawson-Los Monos Reserve, wetlands within the Batiquitos and Buena Vista Lagoons, and the South Carlsbad State Beach. Several properties owned by the City have been proposed to be included in the HMP, including Lake Calavera, portions of the Municipal Golf Course, and Veterans Memorial and Hub Parks. The project site is located entirely within the existing MRF property, zoned for Public Utilities. No conflicts with applicable habitat conservation plans or natural community conservation plans would occur. There would be no impact.

X. MINERAL RESOURCES

a,b) **Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state or result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?**

NO IMPACT. The project site is underlain by fill, hardpan, and bedrock. No mineral resources that would be of value are known to exist on the project site (City of Carlsbad, 1994; Westec Services Inc., 1981). There would be no impact.

XI. NOISE

a,c,d) **Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies; result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project; or result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?**

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED. There are existing and planned residential land uses located adjacent to the MRF. Noise could affect residents near the MRF and other project facilities during operation and construction.

Operational Noise

The City of Carlsbad does not have numeric noise limits in its noise ordinance. The Noise Element of San Diego County's General Plan (San Diego County, 1980) contains limits based on the Community Noise Equivalent Level (CNEL). The ordinance states:

> "Whenever possible, development in San Diego County should be planned and constructed so that noise sensitive areas are not subject to noise in excess of CNEL equal to 55 decibels."

CNEL is a metric that adds 5 dB to evening (7 pm to 10 pm) noise levels and 10 dB to nighttime (10 pm to 7 am) noise levels to account for the greater sensitivity of people to noise during those periods. Therefore, to meet a CNEL limit of 55 dB, noise levels must be below 55 dB in the daytime, 50 dB in the evening, and 45 dB at night. For purposes of this analysis, if noise generated by the project would cause these limits to be exceeded, the impact would be considered significant.

To determine existing noise levels, noise monitoring was conducted at the site (Kennedy/Jenks, 2001B). The monitoring program was designed to identify existing neighborhood noise levels at various times of the day, and noise profiles for specific equipment at the MRF. Once the data was collected it was utilized in a noise simulation model (Sound PLAN Wins) to predict future noise impacts within the area. The

noise-monitoring program showed that noise levels resulting from all equipment onsite other than the emergency generator ranged from 44 to 45 dBA, both day and night, at the northern MRF property line at Corinth Street (near the closest residential units to the site.)

During emergency electrical blackout conditions, noise at the site is dominated by the 500 kilo volt amp (kVA) diesel standby/emergency generator. The distance to the nearest residential area from the generator is approximately 385 feet to the south. The model showed that the noise level at that location would be about 60 dBA. From this data, based on 6 dB decrease per doubling of distance, it can be inferred that this generator produces a noise level of about 85 dBA at 23 feet. The expansion of the plant would require replacing the existing generator with a new 1500 kVA generator that is specified at 72 dBA at 23 feet from the enclosure. The resulting noise level from the new generator would be approximately 47 dBA at the residential boundary, which would be similar to existing ambient levels and would be a reduction of 13 dBA due to the modern acoustical enclosures included in the proposed design.

The existing MRF 500 kVA generator has an SDAPCD operating permit that allows the District to run the generator a maximum of 12 hours per day for 365 days per year (4,380 hours/year). The new generator is expected to have similar limitations. Standby generators are typically run for only 52 hours/year for maintenance and an additional 200 hours/year for power outage conditions. Thus, most of the time (all but 252 hours of the 8760 hours in a year), noise levels surrounding the plant would not be affected by the generator. If the emergency generator were to operate continuously over a 24-hour period, a constant level of 47 dBA would be experienced at the nearest residential location. This constant noise level would correspond to a CNEL of 53 dBA, which would be below the CNEL criteria of 55 dBA. Therefore, impacts from operational noise during emergency conditions due to the proposed project would not expose persons or generate noise levels in excess of standards, and would not result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

During normal operations, noise that reaches the MRF property line is generated from a blend of generally non-distinguishable sources including blowers, fans, and motors. Both the model and measurements show that current noise levels adjacent to the MRF (resulting from all equipment on-site) fall below the CNEL criteria of 55 dBA. The most prominent existing noise sources from existing MRF operations were identified to be the emergency generator, odor control fan/booster fan/stack, blower room, new control room, headworks area, roughing filter pump station, and effluent pump motor. Noise modeling of projected conditions after the expansion indicates that during normal operations, the maximum noise level at the surrounding residential units would be unchanged and would continue to meet the CNEL criteria of 55 dBA. Therefore, the project would not result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

Table 5-1 provides a list of noise sources within the expanded MRF in descending order of impact, as determined from the model results. (Kennedy/Jenks, 2001B) Due to the close proximity of existing and planned residential uses and the potential for intrusive noise levels, design of the MRF expansion would incorporate the listed "proactive" noise control/abatement features. These proactive noise control features are included in the project and in the impact analyses above. As a result, operational noise impacts would be less than significant.

TABLE 5-1
SUMMARY OF NOISE SOURCES WITHIN THE MRF WITH PLANNED IMPROVEMENTS

Source	Noise Type	Acoustical Features
Emergency Generator - New	Fan/Engine/Exhaust	Acoustical abatement package, enclosure, critical silencer, sound trap louvers
Aeration Blower Building	Blowers	Enclosure, acoustical abatement package (door, sound trap louvers, absorption panels)
Odor Control Fan/ Booster Fans/Stack	Fan/Stack tip	Fan screening
Blower Room (existing)	Blowers	Install acoustical abatement package (door, sound trap louvers, absorption panels)
HVAC – New Control Room	Fans/Air conditioner	Screen or orient away from nearest homes (slow tip speed fans)
Motors/ Pumps Headworks Areas	Motors/Pumps	Enclosures or locate pumps in depressed dry well
Roughing Filter Pump Station	Motors/Pumps	Screen by roughing filters/ enclosure/wall
Effluent Variable Frequency Drive Pump Motor	Variable Frequency Motor	Screening panel

Source: Kennedy/Jenks Consultants, June 2001B.

Construction Noise

The City of Carlsbad Noise Ordinance, 8.48 Noise, has no decibels limitations on construction activities but limits construction to daytime hours only and restricts holiday construction activities. While the District, as a special district, is not required to comply with this ordinance, the District would voluntarily comply. The expansion of MRF would require approximately 12 months of construction with activity between the hours of 7 a.m. and 7 p.m. and no nighttime or weekend construction activity is planned. Operation of equipment during this period would increase noise levels on and off site in excess of existing conditions. The City ordinance allows construction activities to create a temporary nuisance, but because such activities are limited to the hours of lowest sensitivity (daytime) and last only a short period of time, such impacts are typically considered adverse, but not significant. In the case of the proposed project, even though construction impacts would be localized, short-term in nature, and would not exceed any noise level thresholds, they have the potential to intrude into nearby residential areas and cause temporary significant impacts,

The following mitigation measures would be incorporated during the construction phase to minimize potential intrusive noise impacts to the nearby residential areas:

- MM-Noise-1: Contractor shall use machinery with noise reduction equipment (e.g., mufflers) to reduce construction noise.
- MM-Noise-2: Machines will not be left idling.
- MM-Noise-3: Construction equipment shall be stored on the project site to eliminate heavy equipment truck trips.

- MM-Noise-4: Electric power will be used in lieu of internal combustion engine power whenever possible.

- MM-Noise-5: Noisy activities will be scheduled to minimize their duration at the site.

- MM-Noise-6: If noise complaints are received, the Contractor will conduct monitoring of noise levels, with corrective actions taken in response to excessive noise levels.

- MM-Noise-7: Contractor shall use La Costa Meadows Drive entrance to the maximum extent possible to reduce construction vehicle noise to adjacent residential areas. Use of the Corintia Street entrance will be limited as much as practical to minimize impacts to residential development.

The incorporation of these measures into the project would reduce potentially significant impacts from construction noise to a less than significant level.

b) **Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?**

LESS THAN SIGNIFICANT IMPACT. Typical machinery operating cycles may involve short durations of full power operation, separated by longer durations at lower power. Groundborne vibration would be minimal and would not be severe enough for local residents to experience any effects. The impact would be less than significant.

e) **For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?**

NO IMPACT. The MRF is located outside of the McClellan-Palomar Comprehensive Land Use Plan area and is located nearly 5 miles south of the McClellan-Palomar airport (City of Carlsbad, 1994). There would be no impact.

f) **For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?**

NO IMPACT. There are no private airstrips within the vicinity of the project site. There would be no impact.

XII. POPULATION AND HOUSING

a) **Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?**

LESS THAN SIGNIFICANT IMPACT. The MRF expansion would increase the wastewater treatment capacity available in the District to provide service for new planned development and increase the quantity of recycled water available for irrigation. Implementation of the facility expansion would not induce growth, but rather would accommodate future planned growth. The District has a legal responsibility to serve and is charged with the responsibility of providing adequate wastewater treatment capacity. As such, the District must plan for facilities to accommodate future growth. The proposed facility would be consistent with the adopted Vallecitos Water District Master Plan, which was prepared to accommodate regional growth anticipated by area-wide General Plans and SANDAG. The proposed

project would not remove the obstacles to building new housing or businesses in the area, nor would it result in the extension of roads, pipelines, or other infrastructure. As a response to the planned growth surrounding the facility (growth that is consistent with applicable planning documents such as City of Carlsbad and City of San Marcos General Plan), the MRF expansion would have a less than significant impact.

b,c) **Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere, or displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?**

NO IMPACT. The project is located entirely within the boundaries of the existing MRF, and would not displace any housing or people. There would be no impact.

XIII. PUBLIC SERVICES

a) **Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:**

Fire protection, police protection, schools, parks, or other public facilities?

NO IMPACT. The project consists of expanding the existing MRF. The expansion would not increase population, and would have no impact on the need for additional fire protection, police protection, schools, parks, or other public facilities.

XIV. RECREATION

a,b) **Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?**

NO IMPACT. The proposed MRF expansion would have no impact on the use of neighborhood or regional parks or other recreational facilities in the immediate area. Additionally, the proposed expansion of the MRF does not include the construction or expansion of recreational facilities. There would be no impact.

XV. TRANSPORTATION/TRAFFIC

a,b) **Would the project cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections), or exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?**

LESS THAN SIGNIFICANT IMPACT. The MRF has two access roads. The MRF's main entrance lies on the northern property boundary and is accessible via Corintia Street, a "Collector Street" generally carrying light to moderate traffic volumes to adjacent residential areas. La Costa Meadows Drive provides a southeast plant entrance from Rancho Santa Fe Road, and is classified as a "Local Street" which carries a minimum amount of traffic (estimated average daily trips of 500 maximum) and is designed to discourage through-traffic. Currently, usage of this street is conducted mainly by MRF operations (employee and delivery trips), and is minimal. No residences are located along La Costa Meadows Drive east of Rancho Santa Fe Road, nor are any proposed for this designated open space area. South Rancho Santa Fe Road is a "Prime Arterial" capable of carrying heavy traffic volumes.

All construction traffic would access the plant utilizing La Costa Meadows Drive off of Rancho Santa Fe Road. Additional traffic on La Costa Meadows Drive would consist of construction equipment moving on and off the site, construction material deliveries, and construction workers commuting daily to and from the site. Presently, the traffic volume on La Costa Meadows Road is minimal, and the additional construction traffic is not anticipated to exceed the capacity of that street.

Construction traffic control and signage would be posted along Rancho Santa Fe Road that advises and cautions commuters of construction traffic. Furthermore, construction vehicles and deliveries will not be allowed to make a left turn onto Rancho Santa Fe Road. Because excavated soil would be used onsite to create a berm around the roughing filters, the only increase in truck traffic from hauling would be from rock excavation. Roughly 1-2 truck trips are anticipated for the two-month hauling effort, thus there would not be a significant increase in truck traffic on Rancho Santa Fe Road. Furthermore, due to the use of the southeast entrance, the potential impacts to the nearby residential areas would be minimized. Also, an area adjacent to La Costa Meadows Drive near Rancho Santa Fe Road would be utilized as a laydown area for construction equipment, reducing daily construction traffic on Rancho Santa Fe Road. Once construction is complete, the only additional traffic would result from the commuting of two additional operators and the chlorine delivery trucks as mentioned before.

For the reasons described above, the impacts would be less than significant.

c) **Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?**

NO IMPACT. The project site is located outside of the airport land use area (City of Carlsbad, 1994) and would have no impact on air traffic.

d) **Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?**

NO IMPACT. The project would be conducted entirely within the existing MRF property. No traffic hazards would be constructed within the area of the MRF, nor would the expansion introduce any incompatible uses. Therefore, there would be no impact.

e) **Would the project result in inadequate emergency access?**

LESS THAN SIGNIFICANT IMPACT. During the expansion, construction activities would be occurring simultaneously at several locations throughout the MRF. The Contractor would be required to use La Costa Meadows Drive, a local street supporting no existing residences or businesses, rather than Corintia Street, the main corridor to existing and planned residential neighborhoods. This would maintain emergency access to the facility at all times via the north gate plant entrance from Corintia Street, as well as to neighboring residential areas. A less than significant impact is anticipated.

f) **Would the project result in inadequate parking capacity?**

LESS THAN SIGNIFICANT IMPACT. The MRF would arrange for parking for the construction workers either at the site or adjacent laydown area. Parking for staff and/or visitors would be reserved. Upon project completion, the five new parking spaces adjacent to the new control building would accommodate the two additional operators. The impact would be less than significant.

g) **Would the project conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?**

NO IMPACT. Currently, the MRF supports no bus turnouts or adjacent alternative transportation infrastructure. The MRF expansion would occur entirely within the existing MRF property, and there would be no conflict with alternative transportation policies, plans, or programs. There would be no impact.

XVI. UTILITIES AND SERVICE SYSTEMS

a) **Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?**

NO IMPACT. The existing MRF is in compliance with its RWQCB waste discharge requirements, as described in its NPDES permit, and Title 22, Chapter 3 requirements for reclamation and reuse. The proposed expansion would include upgrades to current treatment processes. Upon completion, the MRF would remain in compliance with RWQCB and Title 22, Chapter 3 requirements. Therefore, there would be no impact.

b) **Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**

NO IMPACT. The project consists of the expansion of an existing wastewater treatment facility and would not result in the construction of new water or wastewater treatment facilities or expansion of existing facilities beyond the proposed project. The impacts of this expansion are detailed throughout this IS/MND and are anticipated to be less than significant with implementation of the proposed mitigation measures.

c) **Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**

NO IMPACT. As described in VIII, Hydrology and Water Quality, the expansion of the MRF would not substantially increase storm water runoff; therefore, no new storm water drainage facilities would be required. There would be no impact.

d) **Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?**

NO IMPACT. Expansion of the MRF would not increase water consumption or require additional water supplies. There would be no impact.

e) **Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?**

NO IMPACT. The MRF is the wastewater treatment provider. The facility itself produces minimal quantities of wastewater from operator uses and would have no impact on the capacity of the MRF.

f) **Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?**

LESS THAN SIGNIFICANT IMPACT. The proposed project would create excavated soil and construction and demolition waste. Approximately 20,605 cubic yards of earth material generated from excavations of the new facilities would be used onsite to create a berm around the roughing filters to further screen the structures from future neighbors to the west. However, roughly 1,700 cubic yards of rock excavations would be trucked offsite. It is anticipated that the rock excavations would be generated over a two-month period, resulting in 1-2 truck trips per day. Because the excavated material would largely be clean fill, the material could be disposed of in a number of ways, including used for fill at another construction site or used for cover at a landfill.

Construction and demolition waste can be disposed of in landfills designated for inert waste only, as well as in municipal solid waste landfills. The MRF is within close proximity to two active landfills, the Sycamore and Miramar Landfills. Both landfills are permitted through 2013, and there is adequate inert disposal capacity available in both landfills for the waste produced by this project.

The plant-wide waste solids stream would continue to be transported to EWPCF for treatment and disposal. An expansion of the EWPCF is planned in the near future. The EWPCF is capable of accommodating the increase in solids anticipated.

A less than significant impact to solid waste disposal is anticipated.

g) **Would the project comply with federal, state, and local statutes and regulations related to solid waste?**

NO IMPACT. As discussed previously, plant-wide waste solids are transported to the EWPCF for treatment and disposal. Treatment and disposal of the solids (sludge) generated onsite would continue to comply with applicable statutes and regulations related to solid waste. There would be no impact.

XVII. MANDATORY FINDINGS OF SIGNIFICANCE

a) **Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?**

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED. The project site is located entirely within the existing MRF property, which has been disturbed by previous construction and operations activities. No construction or operational activities would degrade the quality of the environment, including biological resources or historical resources. The property does not support habitat specific to any listed endangered, threatened, or sensitive species, nor does it contain endangered or threatened

plant species. Potential indirect impacts to San Marcos Creek (100 yards to the south) and associated wildlife would be less than significant.

A known archaeological site (SDM-W-659) lies in proximity to, but outside the limits of, the project site. No activities would take place within the preserve area for the documented resource. As discussed in Section V (b), incorporation of mitigation measures to protect and preserve cultural resources, if discovered during construction activities on-site, would reduce the impacts to a less than significant level.

b) **Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects?)**

LESS THAN SIGNIFICANT WITH MITIGATION. The residential developments of La Costa Ridge are planned to be constructed to the west, northwest, and east of the MRF and create a potential for cumulative impacts. It is not known when construction activities for La Costa Ridge will be initiated.

According to the EIR for the planned development, significant cumulative impacts to air quality are anticipated during construction. Construction activities at the MRF would temporarily increase the current flows of traffic and slightly amplify existing poor air quality, but would not exceed roadway capacities or air quality restrictions. Construction activities for the MRF would use different roadways for access than La Costa Ridge construction traffic, limiting the cumulative effect on both traffic and air quality. Short-term increases in noise would also have the potential to create a cumulative impact if the La Costa Ridge construction occurred at the same time. However, potential short-term construction noise impacts would be reduced by following the City of Carlsbad Noise Ordinance requirements and by implementation of mitigation measures listed herein (Section XI). Therefore, in combination with other projects, the incremental effects of this project would not be cumulatively considerable, and would not be significant.

c) **Does the project have environmental effects, which would cause substantial adverse effects on human beings, either directly or indirectly?**

LESS THAN SIGNIFICANT IMPACT. No significant unavoidable environmental effects were identified in this environmental analysis. Therefore, no substantial adverse effects on human beings, either directly or indirectly, would occur.

Section 6: List of Preparers

Vallecitos Water District (Lead Agency)

Dennis O. Lamb	Director of Engineering and Operations
Cheryl Brandstrom	Engineering Supervisor

Kennedy/Jenks Consultants

Keith A. London, P.E.	Project Director
Richard Burke, C.E.P.	CEQA Project Manager
Matt Tebbetts, P.E.	Project Manager
Nicole Murphy, P.E.	Project Engineer
Arne Sandvik, P.E.	Project Engineer
Jolene Northrop	Assistant Engineer
Roxanne Nagle	Environmental Scientist

Section 7: References

Affinis. 2003. Biological Resources Report, Vallecitos Water District Service Area, San Diego County, California.

Bowman, Roy H. 1973. Soil Survey. United States Department of Agriculture, Soil Conservation Service, San Diego.

California Department of Conservation, Division of Mines and Geology. 25 September 2001. Alquist-Priolo Earthquake Fault Zoning Act. 2001. http://www.consrv.ca.gov/dmg/rghm/a-p/ap-intro.htm.

Camp Dresser & McKee Inc. 1997. Vallecitos Water District Water, Wastewater, and Water Reclamation Master Plan Update Final Supplemental EIR.

City of Carlsbad. December 1999. Habitat Management Plan for Natural Communities.

City of Carlsbad. 1994. General Plan. Land Use Element, Circulation Element, Noise Element, Open Space & Conservation Element, Public Safety Element.

City of Carlsbad. 4 September 2001. City of Carlsbad Official Web Site. http://www.ci.carlsbad.ca.us.

City of San Diego. 2003. Multiple Species Conservation Program (MSCP) Plan Summary. City of San Diego Website. Website address: http://www.sannet.gov/mscp/plansum.shtml. Accessed April 21, 2003.

GeoSoils, Inc. 24 March 1981. Geologic & Soils Engineering Investigation Proposed Improvements San Marcos County Water District Meadowlark Reclamation Facility City of Carlsbad, California.

Jennings, Charles W. 1994. Fault Activity Map of California and Adjacent Areas with Location and Ages of Recent Volcanic Eruptions. California Geologic Data Map Series, Map No.6. California Division of Mines and Geology.

Keller Environmental Associates, Inc. 1991. Vallecitos Water District Water, Wastewater, and Reclamation Master Plan Final Environmental Impact Report.

Kennedy/Jenks Consultants. April 2001. Concept and Criteria Design Memorandum for Expansion to 5 mgd.

Kennedy/Jenks Consultants. August 2001A. Vallecitos Water District, Meadowlark Water Reclamation Facility, Technical Memorandum No. 4, Chlorine Versus Sodim Hypochlorite.

Kennedy/Jenks Consultants. August 2001B. Vallecitos Water District, Meadowlark Water Reclamation Facility, Technical Memorandum No. 10, Constructability Analysis.

Kennedy/Jenks Consultants. June 2001A. Vallecitos Water District, Meadowlark Water Reclamation Facility, Technical Design Memorandum 8-A, Odor Control.

Kennedy/Jenks Consultants. June 2001B. Vallecitos Water District, Meadowlark Water Reclamation Facility, Technical Design Memorandum 8-B, Noise.

RECON Regional Environmental Consultants. 15 January 1979. Environmental Impact Report For The SMCWD Wastewater Reclamation Project.

San Diego Air Pollution Control District. 2000. Air Quality in San Diego County: Another Stellar Year.

San Diego County. 1980. General Plan Noise Element, Policy 4b(1).

SANDAG. 2003. Environment - Open Space / Habitat Preservation: North County Multiple Habitat Conservation Program (MHCP). Website address: http://www.sandag.org/index.asp?projectid=97&fuseaction=projects.detail. Accessed April 21, 2003

T & B Planning Consultants, Inc. 23 January 2001. Draft Program Environmental Impact Report for the Villages of La Costa Master Plan (2000) MP 98-01.

WESTEC Services, Inc. November 1981. San Marcos County Water District Meadowlark Reclamation Facility Expansion (to 2.0 mgd) Final Environmental Impact Report.

Appendix A

Mitigation Monitoring and Reporting Program

Appendix A: Mitigation Monitoring and Reporting Program

A.1 Background

When adopting a Mitigated Negative Declaration (MND) the California Environmental Quality Act (CEQA) requires that a monitoring and reporting program "designed to ensure compliance during project implementation" must be adopted as well. The Mitigation Monitoring and Reporting Program (MMRP) must monitor and report the implementation of the mitigation measures, adopted project alternatives, or project alterations specified in the MND in order to reduce environmental impacts.

As required, Vallecitos Water District (District) has prepared this MMRP in support of the MND for the Meadowlark Water Reclamation Facility (MRF) expansion from 2.25 million gallons per day (mgd) to 5.0 mgd. As all of the mitigation measures for this project are construction-related, the mitigation measures and reporting requirements shall be incorporated into the contract documents.

A.2 Approach

The objective of this MMRP is to provide a program to examine, document, and record compliance with all measures and conditions required to reduce the potential environmental impacts of the expansion at the MRF to a level that is less than significant. Typically, mitigation monitoring can be initiated during the planning and design, construction, or operation phases of a project. For this project, all mitigation measures are construction related.

The master list in Table A-1 summarizes the mitigation measures for the project and the associated monitoring required. For each recommended mitigation measure, Table A-1 lists the type of monitoring, the party responsible for the monitoring, and the compliance criteria. Following is an explanation of each of the columns in Table A-1:

- Mitigation Measure: A brief description of each mitigation measure is provided.
- Type: Each mitigation measure is classified as Project Design Mitigation (PDM), Construction Mitigation (CM), or Sustained Mitigation (SM). For this project, all mitigation is Construction Mitigation and implementation will occur during construction of the MRF expansion.
- Monitor: This column identifies the party responsible for determining compliance with the mitigation measure.
- Schedule: For this project, all of the mitigation measures are to be implemented during the construction process.
- Compliance Criteria: Indicators of compliance are set forth under this column of the table. Upon completion of the criteria requirement listed, the mitigation measure is satisfied.

A.3 Monitoring Documentation

The MMRP documentation shall be prepared in report form and may include a detailed narrative describing the monitoring and reporting procedures, monitoring report forms and/or a periodic work program providing monitoring instructions and procedures. Reports shall include, as appropriate:

- Daily Field Report: Daily Field Logs (DFL) shall be kept throughout each day of all activities observed. These notes shall be informal in nature and kept in a land surveyor's type notebook, with each page numbered, dated, and initialed by the appropriate member of the mitigation monitoring team. These reports shall be attached to a Mitigation Monitoring Compliance Report. An example of a Daily Field Report is presented in Figure A-1.

- Mitigation Monitoring Compliance Report (MMCR): The MMCR shall include a checklist of the conditions and an indication as to whether activities are in compliance or violation, with short summaries on remedial action as appropriate. All DFL sheets pertaining to a particular MMCR shall be attached. The MMCR would be completed whether a condition is in compliance or violation. An example of an MMCR is presented in Figure A-2.

- Monthly Reports (MR): The MR shall be prepared based on information contained in the DFLs or MMCRs. This report shall be a general summary analysis. The MR shall contain a review of the status of the construction effort, compliance record for the previous month, and a brief review of problems, recommendations, changes needed in procedures, etc. The report may also contain a discussion of the effectiveness of mitigation used, along with ideas for changes where necessary.

- Emergency Reports: Additional reports shall be made at any time to communicate unusual situations or problems.

TABLE A-1
MITIGATION MONITORING AND REPORTING PROGRAM

Number	Mitigation Measure	Type	Monitor	Schedule	Compliance Criteria	Documentation
	Cultural Resources					
MM-Cultural-1	If cultural resources are encountered during grading, excavation, or construction, the contractor will cease activities in the immediate area and contact the Construction Manager. The Construction Manager shall contact the District and jointly determine whether to contact an archaeologist and/or Native American observer, as appropriate, for removal of the resources and recommendations for further possible mitigation.	CM	Construction Manager	During construction	Inspection and monitoring	DFL MMCR MR
	Noise					
MM-Noise-1	Contractor shall use machinery with noise reduction equipment (e.g., mufflers) to reduce construction noise.	CM	Construction Manager	During construction	Inspection and monitoring	DFL MMCR MR
MM-Noise -2	Machines will not be left idling.	CM	Construction Manager	During construction	Inspection and monitoring	DFL MMCR MR
MM-Noise-3	Construction equipment shall be stored on the project site to eliminate heavy equipment truck trips.	CM	Construction Manager	During construction	Inspection and monitoring	DFL MMCR MR
MM-Noise-4	Electric power shall be used in lieu of internal combustion engine power whenever possible.	CM	Construction Manager	During construction	Inspection and monitoring	DFL MMCR MR
MM-Noise-5	Noisy activities will be scheduled to minimize their duration at the site.	CM	Construction Manager	During construction	Inspection and monitoring	DFL MMCR MR
MM-Noise-6	If noise complaints are received, the contractor shall conduct monitoring of noise levels, with corrective actions taken in response to excessive noise levels.	CM	Construction Manager	During construction	Inspection and monitoring	DFL MMCR MR
MM-Noise-7	Contractor shall use La Costa Meadows Drive to reduce construction vehicle noise to adjacent residential areas. Use of the Corintia Street entrance will be limited as much as practical to minimize impacts to residential development.	CM	Construction Manager	During construction	Inspection and monitoring	DFL MMCR MR

FIGURE A-1
DAILY FIELD REPORT

Date:	Arrival Time:	Departure Time:
Location:_____ _____ _____ Construction Sheet No.:		Discipline: ☐ Archaeology ☐ Biology ☐ Soils/Geology ☐ Other _____
Permit Conditions/Specifications:		
Compliance: ☐ Acceptable ☐ Unacceptable ☐ Remedial Action Implemented in Field ☐ Require Work Stop ☐ Follow-up Required		
Construction Activity:_____ _____ _____ _____		
Observations:_____ _____ _____ _____ _____ _____ _____ _____ _____ _____		
Recommendations:_____ _____ _____		
By VWD:		Report Approval:
Receipt by VWD Construction Supervisor: Signature: _____ Date: _____ Time: _____		
Comments/Actions:_____ _____ _____		
Copy Issued: ☐ VWD Project Manager ☐ Construction Supervisor		
Data Entered to Mitigation Monitoring Compliance Report:_____ Initials:_____		

FIGURE A-2
MITIGATION MONITORING COMPLIANCE REPORT

Project Name: _____ File Numbers: _____

Approval Date: _____ EIR or Conditional Neg. Dec.: _____

The following environmental mitigation measures were incorporated into the conditions of Approval for this project in order to mitigate identified environmental impacts to a level of insignificance. A completed and signed checklist for each mitigation measure indicates that this mitigation measure has been complied with and implemented, and fulfills the District monitoring requirements with respect to Assembly Bill 3180 (Public Resources Code Section 21081.6).

Mitigation Measure	Type	Monitoring Dept.	Shown on Plans	Verified Implementation	Remarks
1.					
2.					
3.					
4.					
5.					
6.					

7. . . . (numbered as necessary)

Explanation of Headings

Type: Project, ongoing, cumulative.
Monitoring Dept.: Department, or Agency, responsible for monitoring a particular mitigation measure.
Shown on Plans: When mitigation measure is shown on plans, this column will be initialed and dated.
Verified Implementation: When mitigation measure has been implemented, this column will be initialed and dated.
Remarks: Area for describing status of ingoing mitigation measure, or for other information.

Initial Study/Mitigated Negative Declaration for the Meadowlark Water Reclamation Facility – Comments Received

Department of Toxic Substances Control

San Diego County Archaeological Society

Terry Tamminen
Agency Secretary
Cal/EPA

Department of Toxic Substances Control

5796 Corporate Avenue
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Arnold Schwarzenegger
Governor

October 13, 2004

Ms. Cheryl Brandstrom
City of San Marcos
Vallecitos Water District
201 Vallecitos De Oro
San Marcos, California 92069

INITIAL STUDY FOR A MITIGATED NEGATIVE DECLARATION (ND) FOR THE MEADOWLARK WATER RECLAMATION FACILITY (MRF) (SCH#2004091046)

Dear Ms. Brandstrom:

The Department of Toxic Substances Control (DTSC) has received your submitted document for the above-mentioned project. As stated in your document the project description is an expansion of the MRF from the current capacity of 2.25 mgd to a capacity of 5.0 mgd within the existing plant property of 4.73 acres. The proposed expansion includes: "...construction of new facilities, upgrades to the existing influent pump station, upgrades to existing chlorine gas facility and disinfection system, installation of chlorine scrubbing units, implementation of an expanded odor control and removal system, implementation of noise abatement procedures, improvements to the Supervisory Control and Data Acquisition system and electrical system, replacement of landscaping and relocation of existing fence." Based on the review of the submitted document DTSC has comments as follows:

1) The ND should identify and determine whether current or historic uses at the project site may have resulted in any release of hazardous wastes/substances. The document states: "In addition to process facilities, the MRF includes an operations building and a chemical building. The operations building consists of a laboratory, office areas, garage, and restrooms. The chemical building consists of a chemical mixing room, chlorinator room, and chlorine storage room."

2) The document states that the ND would identify any known or potentially contaminated sites within the proposed Project area. For all identified sites, the ND should evaluate whether conditions at the site may pose a threat to

human health or the environment. A Phase I Assessment may be sufficient to identify these sites. Following are the databases of some of the regulatory agencies:

- National Priorities List (NPL): A list maintained by the United States Environmental Protection Agency (U.S.EPA).
- Site Mitigation Program Property Database (formerly CalSites): A Database primarily used by the California Department of Toxic Substances Control.
- Resource Conservation and Recovery Information System (RCRIS): A database of RCRA facilities that is maintained by U.S. EPA.
- Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS): A database of CERCLA sites that is maintained by U.S.EPA.
- Solid Waste Information System (SWIS): A database provided by the California Integrated Waste Management Board which consists of both open as well as closed and inactive solid waste disposal facilities and transfer stations.
- Leaking Underground Storage Tanks (LUST) / Spills, Leaks, Investigations and Cleanups (SLIC): A list that is maintained by Regional Water Quality Control Boards.
- Local Counties and Cities maintain lists for hazardous substances cleanup sites and leaking underground storage tanks.
- The United States Army Corps of Engineers, 911 Wilshire Boulevard, Los Angeles, California, 90017, (213) 452-3908, maintains a list of Formerly Used Defense Sites (FUDS).

3) The ND should identify the mechanism to initiate any required investigation and/or remediation for any site that may be contaminated, and the government agency to provide appropriate regulatory oversight. If hazardous materials or wastes were stored at the site, an environmental assessment should be conducted to determine if a release has occurred. If so, further studies should be carried out to delineate the nature and extent of the contamination, and the

potential threat to public health and/or the environment should be evaluated. It may be necessary to determine if an expedited response action is required to reduce existing or potential threats to public health or the environment. If no immediate threat exists, the final remedy should be implemented in compliance with state regulations and policies.

4) All environmental investigations, sampling and/or remediation should be conducted under a Workplan approved and overseen by a regulatory agency that has jurisdiction to oversee hazardous waste cleanup. The findings and sampling results from the subsequent report should be clearly summarized in the ND.

5) Proper investigation, sampling and remedial actions overseen by a regulatory agency, if necessary, should be conducted at the site prior to the new development or any construction.

6) If any property adjacent to the project site is contaminated with hazardous chemicals, and if the proposed project is within 2,000 feet from a contaminated site, then the proposed development may fall within the "Border Zone of a Contaminated Property." Appropriate precautions should be taken prior to construction if the proposed project is within a "Border Zone Property."

7) If building structures, asphalt or concrete-paved surface areas or transportation structures are planned to be demolished, an investigation should be conducted for the presence of lead-based paints or products, asbestos containing materials (ACMs), biohazards and other waste water chemicals of concern. If lead-based paints or products or ACMs, or other chemicals of concern are identified, proper precautions should be taken during demolition activities. Additionally, the contaminants should be remediated in compliance with California environmental regulations and policies.

8) The project construction may require soil excavation and soil filling in certain areas. Appropriate sampling is required prior to disposal of the excavated soil. If the soil is contaminated, properly dispose of it rather than placing it in another location. Land Disposal Restrictions (LDRs) may be applicable to these soils. Also, if the project proposes to import soil to backfill the areas excavated, proper sampling should be conducted to make sure that the imported soil is free of contamination.

9) Human health and the environment of sensitive receptors should be protected during the construction or demolition activities. A study of the site overseen by the appropriate government agency might have to be conducted to determine if there are, have been, or will be, any releases of hazardous materials that may pose a risk to human health or the environment.

10) If it is determined that hazardous wastes are, or will be, generated by the proposed operations, the wastes must be managed in accordance with the California Hazardous Waste Control Law (California Health and Safety Code, Division 20, chapter 6.5) and the Hazardous Waste Control Regulations (California Code of Regulations, Title 22, Division 4.5).

11) If it is determined that hazardous wastes are or will be generated and the wastes are (a) stored in tanks or containers for more than ninety days, (b) treated onsite, or (c) disposed of onsite, then a permit from DTSC may be required. If so, the facility should contact DTSC at (818) 551-2171 to initiate pre application discussions and determine the permitting process applicable to the facility.

12) If it is determined that hazardous wastes will be generated, the facility should obtain a United States Environmental Protection Agency Identification Number by contacting (800) 618-6942.

13) Certain hazardous waste treatment processes may require authorization from the local Certified Unified Program Agency (CUPA). Information about the requirement for authorization can be obtained by contacting your local CUPA.

14) If the project plans include discharging wastewater to storm drain, you may be required to obtain a wastewater discharge permit from the overseeing Regional Water Quality Control Board.

15) If during construction/demolition of the project, soil and/or groundwater contamination is suspected, construction/demolition in the area should cease and appropriate health and safety procedures should be implemented. If it is determined that contaminated soil and/or groundwater exist, the ND should identify how any required investigation and/or remediation will be conducted, and the appropriate government agency to provide regulatory oversight.

DTSC provides guidance for cleanup oversight through the Voluntary Cleanup Program (VCP). For additional information on the EOA or VCP, please visit DTSC's web site at www.dtsc.ca.gov.

If you have any questions regarding this letter, please contact Ms.Teresa Hom, Project Manager, at (714) 484-5477 or email at thom@dtsc.ca.gov.

Sincerely,

Greg Holmes
Unit Chief
Southern California Cleanup Operations Branch - Cypress Office

cc: Governor's Office of Planning and Research
State Clearinghouse
P.O. Box 3044
Sacramento, California 95812-3044

Mr. Guenther W. Moskat, Chief
Planning and Environmental Analysis Section
CEQA Tracking Center
Department of Toxic Substances Control
P.O. Box 806
Sacramento, California 95812-0806

CEQA #956

San Diego County Archaeological Society, Inc.

Environmental Review Committee

7 September 2004

To: Ms. Cheryl Brandstrom
Engineering Supervisor
Vallecitos Water District
201 Vallecitos de Oro
San Marcos, California 92069

Subject: Draft Mitigated Negative Declaration
Meadowlark Water Reclamation Facility Expansion

Dear Ms. Brandstrom:

I have reviewed the subject draft MND on behalf of this committee of the San Diego County Archaeological Society.

Mitigation Measure MM-Cultural-1 does not reflect contemporary practice for the treatment of cultural resources. Construction personnel are not qualified to identify resources that might be uncovered, and they would have a disincentive to report a discovery if they did. The age of the previous archaeological work, 23 years, far exceeds the normal practice to require reevaluation by a qualified archaeologist if the previous work is more than five years old. Consequently, the Many things may have happened in the interim, such as recordation of new sites in the vicinity, or exposure of sites by natural or human activities. Also, site interpretation and recording standards have evolved over that time. Consequently, the District should obtain the services of a qualified archaeologist to obtain new records searches and resurvey the parcel. This will either:

- Provide confidence that no impacts to cultural resources will result, thus eliminating the need for any cultural resources mitigation measures, or
- Identify resources to be avoided or tested and, possibly, excavated as part of the mitigation program, or
- If areas of potential subsurface resources are suspected, yield a recommendation for monitoring by an archaeologist in certain areas.

Any resulting collections and the associated records should be curated at a qualified institution (i.e., meeting the State Historical Resource Commission's *Guidelines for the Curation of Archaeological Collections*, May 7, 1993) in San Diego County.

SDCAS appreciates being included in the District's environmental review process.

Sincerely,

James W. Royle, Jr., Chairperson
Environmental Review Committee

cc: SDCAS President; File

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