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**RE: Comments on Clearwater Program Draft Environmental Impact Report/
Environmental Impact Statement**

The following comments are submitted on behalf of the Sierra Club Angeles Chapter in response to the Draft Environmental Impact Report (DEIR)/Draft Environmental Impact Statement (DEIS) prepared for the Clearwater Program.

We recognize the need for an additional tunnel from the Sanitation Districts' Joint Water Pollution Control Plant (JWPCP) in Carson to the ocean, (1) in order to inspect, and if necessary, repair the existing tunnels and (2) to provide additional capacity for possible future high-flow storm events such as happened in January 1995. Such storm events are likely to become more frequent with global warming. Also, sea level will continue to rise because of global warming, so that there will be decreased hydraulic head between the JWPCP and the ocean outfall.

Clearwater construction would *yield of 165 million gallons per day of high quality recycled water*. That Clearwater elevates recycled water to major player status in our local water resources inventory is only hinted at in this report.

After review of the DEIR/DEIS, we believe that this document is inadequate to meet CEQA requirements.

Chapters-Number/Titles p.Chap.N-pg # Text-Quotation Comments

ES-1 Executive Summary (DEIR and MFP) is based on inadequate and incomplete assessment of Program and a single Project impacts, their significance, and appropriate mitigations (see comments below) and therefore must be considered as incomplete and inadequate and must be reviewed and revised in accordance with revisions of the DEIR for adequacy and completeness.

p.ES-3 The wastewater from homes and businesses flows...to seven wastewater treatment plants with a combined permitted capacity of 593 MGD.

p.ES-4 Approximately one-third of the wastewater...is treated at six WRPs...produce high-quality recycled water that is beneficially reused (e.g., landscape irrigation and groundwater recharge)...remaining two-thirds, which includes saltier industrial wastewater...is treated at...JWPCP in Carson...solids removed at the WRPs...returned to the trunk sewers to be **cost-effectively** processed at the JWPCP.

ES-2 This part of the project description clearly indicates that the six upper WRPs do not provide complete sewage treatment (e.g., sludge digester, dewatering, and storage/transport) or cause the same environmental effects as those of the JWPCP in Carson. Thereby the upper WRPs and their service areas (above +300ft elevation) avoid impacts from sludge processing and disposition but receive benefits (e.g., abundant cheap treated recycled irrigation water) which are not available to lower service areas' residents and in Carson (those below +300ft elevation). As these areas represent different communities with different economic, ethnic, and other relationships, these difference become the basis for comments on environmental justice elsewhere. The current and proposed Programmatic effects are significant and continuing and avoided throughout the DEIR. The current and proposed projects and Program must address adequately and completely the differences between benefits and effects in the upper and lower service areas and facilities before any new facilities are proposed.

p.ES-7 CLEARWATER PROGRAM GOALS [vs] OBJECTIVES The Clearwater **Program...objectives:**

Provide adequate system capacity to meet the needs of the growing population.

Provide for overall system reliability by allowing for the inspection, maintenance, repair, and replacement of aging infrastructure.

Provide support for emerging recycled water reuse and biosolids beneficial use opportunities.

Provide a long-term solution for meeting water quality requirements set forth by regulatory agencies.

ES-3a The Executive Summary and DEIR fails to provide the "Goals" of the Program or Project and the preparers appear to have confuse objectives and goals without definitions of the terms. All sections fail to provide shorter term, dated and quantitative expected/planned achievement (=objectives). Therefore the provided "objectives" are incomplete and inadequate or they are goals and no objectives are provided.

Appendix 1-A PRELIMINARY SCREENING ANALYSIS, Chap.2 p.1-A 2.2 2.1.3

Clearwater Program Objectives The Clearwater Program is necessary to ensure adequate JOS wastewater system capacity and reliability through the year 2050...following objectives were

identified in the Master Facilities Plan (MFP) and are the **California Environmental Quality Act (CEQA) objectives**: *List is identical with those of p.ES-7*

ES-3b The Executive Summary provides similar Program "objectives" while the Screening further emphasizes capacity and reliability, and both do not provide the 2050 Goals on which the objectives would be based. Therefore the fundamental basis for alternatives and proposed Program components and the Project itself are inadequately developed and not based on scheduled and quantitative parameters and criteria.

p.ES-7 ...**philosophy** is to design, construct, and maintain **reliable** systems that have **sufficient capacity and redundancy** to provide the **highest level of public safety and environmental protection**. These systems are maintained with routine inspection, repair, and/or replacement as required...critical component...onshore tunnels for the existing ocean discharge system, has not been inspected for over 50 years. Both tunnels cross the active Palos Verdes Fault, which is an additional **area of concern**...Districts have **no reason** to believe **serious** problems exist...imperative that they be **properly** inspected. Addressing aging infrastructure is an **important objective** of the Clearwater Program.

ES-4a Engineering is not philosophy although the remainder of the paragraph contains many undefined, arbitrary, and unquantitative words and phrases. If aging is an important objective why wasn't it place specifically in the list of objectives. Aging and redundancy are not defined but would be estimated, say 100-yr life of project (along a depreciation or capital replacement provision) or 25% capacity, in order to quantify the aging and related redundancy/reliability. Lack of timely proper inspection and maintenance (=deferred maintenance) are reasons for existence of serious problems, if not in the physical facilities, in the management of those facilities. Similarly deferred maintenance relates to O&M costs of facilities and rates , and managements' apparent avoidance of costs with increased risks/costs of failures for those in the lower portions of the sewerage network.

Before committing to an additional tunnel ending at White Point, geotechnical field studies must be done to determine whether this route can be built without impact.

p.ES-8.a PURPOSE AND NEEDS ...rely on two onshore tunnels...have not been inspected...due to their overall length, limited access, interconnections between the tunnels, and continuous flow through the tunnels...flows...from these storm events nearly exceeded the capacity of the JWPCP ocean discharge system. If...damaged or the capacity of the ocean discharge system exceeded, treated JWPCP effluent would need to be bypassed into the Wilmington Drain...through Harbor Regional Park. If sufficient capacity were not available in the Wilmington Drain, the sewers tributary to the JWPCP could overflow and untreated wastewater could enter various water courses, such as the Dominguez Channel and the Los Angeles River.

ES-5a The DEIR and ES do not provide the relationship of Goal(s), Objectives, Purpose(s) and Needs nor their definitions.

ES-5b All risks of adverse effects from expected overflow problems are focused in the Carson-San Pedro area and not in the upper service areas (north of I-5) which have been in place for decades. This again demonstrates assignment of risks and adverse effects toward the lower and benefits in the upper services areas. The proposed Project is, in part only, aimed at reducing the risks to the communities from Carson southward which in

itself would benefit, reduce risks of overflows and malfunctions of the onshore outfall, while increasing the concentration of sludge processing and impacts for residents of the lower service areas. Assessment of benefits and impacts for the lower service areas' compared to upper service areas' is not provided in the DEIR. As indicated herein, the benefits and impacts must be quantified and balanced else wise "net-impact(s)" should be considered as significant.

p.ES-8.b The **project purpose and needs** are to inspect and upgrade the aging ocean discharge system, to provide sufficient capacity in the JOS to accommodate the estimated 2050 peak wastewater flows, and to comply with all applicable water quality standards...prohibiting sewer overflows...Program evaluates both modifying the existing ocean discharge system and constructing a new ocean discharge system.

ES-6 These Project purpose(s) and needs (inspect/upgrade discharge-on/offshore) are not related to the Program and Project goals and objectives and the Program purpose(s) and needs.

Without clear and consistently applied definitions, the recommended project and assessments thereof cannot be considered as complete and adequate and the DEIR must be revised and recirculated.

p.ES-9 PROGRAM-WIDE ALTERNATIVES ANALYSIS AND RECOMMENDATIONS JOINT OUTFALL SYSTEM COMPONENT AREAS For the purposes of developing and evaluating **program-wide alternatives**, the JOS was divided into...: Wastewater Conveyance and Treatment WRP Effluent Management Solids Processing Biosolids Management JWPCP Effluent Management

ES-7a The proposed Program continues and emphasizes distinctions between the five-six WRPs (upper system) and the JWPCP area and again demonstrates assignment of benefits in the upper services areas and continues and increases effects of sludge management in the lower service areas. The five proposed Program elements predominately involve how to get increased sludge generation in the upper service areas down to JWPCP and disposal of treated effluent without recycling. As indicated above, the Program assigns treated WRP effluent for recycled irrigation, recharge, and streamflows to benefit the upper service areas, while sludge and other "non-compliant stream discharge" flows to the regional "sewers" also continues and increases upper sludge discharged for treatment in the JWPCP.

ES-7b The DEIR does not clearly provide adequate nor complete assessment of the sludge processing and differential focus of benefits/impacts for upper and lower service areas. Lower service areas do not receive benefits of recycling

ES-7c No alternatives are developed nor screened to increase in-door water conservation/sewage reduction in upper service areas and to reduce their liquids/sludge flows to and their impacts on the lower service areas and needs for new ocean outflows and risks of overflows.

Without clear and consistently applied definitions, the recommended project and assessments thereof cannot be considered as complete and adequate and the DEIR must be revised and recirculated.

p.ES-13 PROJECT-SPECIFIC ALTERNATIVES ANALYSIS AND RECOMMENDATIONS OCEAN DISCHARGE SYSTEM PROJECT ELEMENTS

...purposes of developing and evaluating project-specific alternatives, the...project was divided into...five elements based on primary functionality: JWPCP Shaft Site Onshore Tunnel Alignment Intermediate Shaft Site Offshore Alignment Diffuser Area.

ES-8a Project purposes, needs, goals, and objectives are not clearly defined. The Project alternatives have been developed without the simplest onshore outfall element alternatives: Straight Alignment from either the west JWPCP Shaft-to-Intermediate Royal Palms shaft or central JWPCP shaft-to-Royal Palms-to-Angels Gate shafts.

ES-8b No study in the DEIR provides an overall sewerage liquid/sludge conservation/management alternative for both upper and lower services' areas with an objective of say 10% reduction in WRP flows to JWPCP and 15% reduction in discharge to the Onshore Tunnel by 2030.

ES-8c No study in the DEIR provides an overall hydrological modeling, conducted to locate "best" marine water quality locations for 50-100% increased discharge by 2050.

Without clear and consistently applied definitions, the recommended project and assessments thereof cannot be considered as complete and adequate and the DEIR must be revised and recirculated.

p.ES-19 PROJECT-SPECIFIC RECOMMENDATIONS Alternative 4...highest-ranked feasible alternative and thus is the recommended project...maximum hydraulic capacity...accommodate the peak wastewater flows...for the year 2050.

ES-9 The Recommendations of the DEIR are based on the undefined "feasible"(technically, financially, administratively, etc.), and the ranking is based on undefined and unquantified goal(s), objectives, purpose(s), and needs without quantified criteria levels to assess feasible vs infeasible.

Without clear and consistently applied definitions, the recommended project and assessments thereof cannot be considered as complete and adequate and the DEIR must be revised and recirculated.

p.ES-22 Project Implementation Schedule The estimated implementation schedule for the recommended project is shown below. The actual schedule could vary depending on...considerations.

ES-10 No Program Schedule has been presented other than 2050 for all Program's projects in order to understand the relationship of the ocean discharge vs water conservation, improved recycling in the upper service areas, and eventual upgrading to advanced secondary or tertiary for recycling and reuse.

Without clear and consistently applied definitions, the recommended project and assessments thereof cannot be considered as complete and adequate and the DEIR must be revised and recirculated.

p.ES-24 ENVIRONMENTAL REVIEW In conformance...joint EIR/EIS...assess the environmental impacts of the recommended plan...identified in...MFP. Both program-wide and project-specific recommendations comprise each alternative.

ES-11 The only "recommended plan" (presumably the proposed Project or Recommended Alternative, Alternative 4) does not incorporate even a tentative program-wide projects'

recommendations in order to understand and assess impacts of both the specific Project and others of the Program.

Without clear and consistent definition of the proposed Project, the recommended plan and assessments thereof cannot be considered as complete and adequate and the DEIR must be revised and recirculated.

p.ES-24 CEQA Scope of Analysis The EIR...**Program** provides a **program**-level environmental assessment of the following **program** elements:

conveyance improvements, plant expansion, process optimization,
WRP effluent management, solids processing, and biosolids management.

[p.ES-9 states program items - Wastewater Conveyance and Treatment, WRP Effluent Management, Solids Processing, Biosolids Management, JWPCP Effluent Management]

Because these elements would not be implemented in the **near future and/or the actual construction locations are unknown (e.g., sewer relief projects), the project specifics are too speculative for a detailed analysis.**

ES-12a The CEQA Program analysis can easily propose a "conceptual base-case" for one set of feasible "projects" which would serve the population of the service areas in 2050 and be integrated with the proposed Project from the JWPCP and seaward.

ES-12b Even within the Executive Summary differences in Program elements differ as they do in the DEIR text - adding JWCP effluents, while lumping plant expansion and process optimization within joint Wastewater Treatment.

ES-12c No Program Schedule has been presented other than 2050 for all other projects in the Program, although a 2050 timeframe does not equal useful life of the Program or the Project projects. A "conceptual base-case" overall program and optimal feasible schedule can and should be provided.

Without clear and consistently applied definitions and a base-case program plan and schedules, the recommended project and assessments thereof cannot be considered as complete and adequate and the DEIR must be revised and recirculated.

p.ES-24 The EIR for the Clearwater Program provides a **project-level environmental assessment of the JWPCP effluent management project alternatives.** The alternatives are divided...for analysis: onshore tunnel alignment, offshore tunnel alignment, JWPCP shaft site, intermediate shaft site, and diffuser area.

ES-13a Please not that even on the same page (ES-11 - perhaps as WRP Effluent Management) and in the related sections of the DEIR, the classification of the proposed Project is not included as JWPCP Effluent Management (ES-9) in the initial portion of the ES section.

ES-13b The Project alternatives have been developed without the simplest onshore outfall element alternatives: Straight Onshore Tunnel Alignment from either the west JWPCP shaft-to-Intermediate Royal Palms shaft or central JWPCP shaft-to-Royal Palms-to-Angels Gate shafts.

ES-13c The Project alternatives have been developed without delineation of the best offshore diffuser areas with existing and future discharges and the marine and maritime environments offshore of Royal Palms or Angels Gate. Other sections and appendices of the DEIR do not start from the basic premise of locating the best-case area for treated

sewage diffusion and then working back to onshore facilities all of which maybe within 10-15% of the total length of the recommended Alternative 4.

ES-13d *The Project also includes elements upstream of the effluent system but related to the current and future flows through the JWPCP effluent system alternatives.*

Without clear and consistently applied definitions, the recommended project and assessments thereof cannot be considered as complete and adequate and the DEIR must be revised and recirculated.

p.ES-24 Prior to approval of any future projects related to the **program elements**, the environmental impacts would be **reassessed, and appropriate environmental documentation** would be prepared at that time.

ES-14 *Given the lack of definitive future Program projects, their schedules, and integration with the recommended Project, no other project should be considered to be included in this Programmatic EIR and future project must be separately assessed within Supplemental EIRs at the least.*

Without clear and consistently applied definitions, the recommended project and assessments thereof cannot be considered as complete and adequate and the DEIR must be revised and recirculated.

p.ES-27 SIGNIFICANT UNAVOIDABLE IMPACTS [Project]

ES-15 *Most if not all of the identified significant adverse effects of the Program and recommended alternative (No.4) can be further mitigated or compensated by existing technologies and changes in designs and may be reduced sufficiently so as to eliminate significant unavoidable impacts. As an example, an alternative onshore tunnel alignment would avoid the more circuitous alignment of Alternative 4 and reduce anticipated alignment impacts by 10-20%. Other alternative mitigation and/or compensatory measures will be provided as appropriately below.*

Without consideration of a direct onshore alignment, screening and recommendation of an effluent project and assessments thereof cannot be considered as complete and adequate and the DEIR must be revised and recirculated.

p.ES-28 Air Quality Significant and unavoidable peak day air quality impacts would occur at a regional level...would exceed the Southern California Air Quality Management District daily significance thresholds for construction-related emissions **before mitigation**.

ES-16 *Construction emissions for tunneling can be greatly reduced by alternative electrical or LPG/CNG powered and slurry-line systems compared to the diesel fuelled "locomotives". The JWPCP facilities currently do dewatering and have staff experience and facilities and thereby can deal with dewatering in a more efficient manner.*

Without consideration of alternative conveyance systems for tunnel debris, the recommendation of an effluent project (Alt.4) and assessments of unavoidable and significant impacts thereof cannot be considered as complete and adequate and the DEIR must be revised and recirculated.

p.ES-28 Specifically, Alternatives 1, 3, and 4 would exceed thresholds for volatile organic compounds (VOC) and nitrogen oxides (NOX)...Although mitigation would reduce emissions, impacts would remain significant for NOX for all alternatives...significance is **directly related**

to the length of the alignment, the **duration of construction**, and the **overlap of elements during construction**...Alternative 4 has the smallest emissions contribution of the four alternatives and would be the preferred alternative based on air emissions.

ES-17 Construction emissions for tunneling can be greatly reduced by alternative direct tunnels rather than those proposed and recommended. Additional alternative onshore and offshore tunnel alignments can further reduce emissions below those of considered alternatives and changes in conveyance system can greatly reduce the emissions. Without consideration of alternative alignments and conveyance systems, assessments of unavoidable and significant impacts thereof cannot be considered as complete and adequate and the DEIR must be revised and recirculated.

p.ES-28 Cultural Resources Significant and unavoidable impacts on paleontological resources would occur during construction...rock face being removed during onshore and offshore tunnel construction **could not be observed** for the presence of paleontological resources; thus, if present, paleontological resources would be destroyed by the TBM. Likewise, at a certain depth, paleontological resources may be encountered during construction at the shaft sites; these resources could not be observed and, if present, would also be destroyed...relatively equal across the alternatives...more paleontological resources would be encountered in the longer alignments...based on alignment length. Alternative 4 would be the preferred alternative with regard to paleontological resources based on alignment length.

ES-18a Construction impacts on fossils can be greatly reduced by:

Early geotechnical sampling, analyses, and reporting for shafts and tunnel alignments,

Geological investigations to establish most-likely locations to encounter fossils prior to construction

Site/Locations identification as to probable fossiliferous locations based on stratigraphy and drilling information

Sampling, analyses, and reporting fossiliferous deposits encountered during excavations

Develop/operate sampling systems for shaft and slurry/debris from tunneling excavations

ES-18b DEIR preparer does not recognize what fossils are. Fossils include foraminifera, diatoms, shells, and bones but the assessment appears to be focused on "bones".

Without consideration of all fossils and of many opportunities that paleontologists have implemented, the assessment appears to be totally inadequate and incomplete which in turn assigns unavoidable and significant impacts when in fact such impacts can be mitigated to below significance levels and the DEIR must be revised and recirculated.

p.ES-29 Employment, Housing, Socioeconomics, and Environmental Justice Under NEPA, **significant and unavoidable environmental justice impacts** would occur during construction of...JWPCP East shaft site would result in environmental impacts that are disproportionately high and adverse on minority and low-income populations.

ES-19 Further mitigation and compensation can be implemented to reduce the significant effects of construction and should be combined with current and ongoing environmental justice impacts from existing and proposed facilities and the overall program bias toward protecting the upper service areas and impacting the lower service areas and Carson

Without clear and consistently applied definitions, the recommended Program and Project and assessments thereof cannot be considered as complete and adequate and the DEIR must be revised and recirculated.

p.ES-30 SIGNIFICANT IMPACTS AND MITIGATION MEASURES (PROGRAM-WIDE) [Tables]

p.ES- AQ

p.ES- CR

p.ES-33 EMPLOYMENT, HOUSING, SOCIOECONOMICS, AND ENVIRONMENTAL JUSTICE2

Impact SOC-3. Would Program result in environmental impacts that are disproportionately high and adverse on minority and low-income communities

p.ES-46 EMPLOYMENT, HOUSING, SOCIOECONOMICS, AND ENVIRONMENTAL JUSTICE

Impact SOC-3. Would Alternatives...result in environmental impacts that are disproportionately high and adverse on minority and low-income populations?

Carson vs other treatment facilities - Solids/Sludge treatment

ES- The Project alternatives have been developed without the simplest onshore outfall element alternatives: Straight Alignment from either the west JWPCP shaft-to-Intermediate Royal Palms shaft or central JWPCP shaft-to-Royal Palms-to-Angels Gate shafts.

Without clear and consistently applied definitions, the recommended Program and Project and assessments therefrom cannot be considered as complete and adequate and the DEIR must be revised and recirculated.

p.ES-34 SIGNIFICANT IMPACTS AND MITIGATION MEASURES (PROJECT-SPECIFIC) [Tables]

MM AES-3a. Implement visual measures to improve the aesthetic quality of the noise barrier to ensure the design blends with the surrounding environment...During the final design process, the input of residents and/or recreationists that will be affected by the placement of the noise barriers **will be accepted**. Their comments will be evaluated for inclusion in the design to ensure the final treatment meets expectations to the greatest extent feasible.

ES- The Project alternatives have been developed without the simplest onshore outfall element alternatives: Straight Alignment from either the west JWPCP shaft-to-Intermediate Royal Palms shaft or central JWPCP shaft-to-Royal Palms-to-Angels Gate shafts.

p.MFP6.1/189 Chapter 6 ALTERNATIVES ANALYSIS 6.1 Introduction

...overall goal...is to identify a recommended plan that is protective of public health and will best meet the needs of the Joint Outfall System (JOS) through the year 2050 in a cost-effective and environmentally sound manner.

Recommendations consist of

system improvements, upgrades, and expansions
to accommodate projected future conditions within the service area.

The future conditions...include

anticipated growth within the system,
an aging infrastructure,
emerging demands for recycled water, and
potential new regulatory requirements.

MFP definition of a single overall Project goal of "identify a recommend plan" is totally inadequate and incomplete for the proposed Project and its relationship to the Program. Without clear and consistently applied Goals, objectives, and quantification for the recommended Program and Project and assessments thereof the DEIR and MFP cannot be considered as complete and adequate and the DEIR must be revised and recirculated.

6.1.2 Planning Objectives The MFP...ensure adequate JOS wastewater system capacity, reliability, sustainability, and compliance...2050...recommended plan in the MFP...following objectives:

Provide adequate system capacity to meet the needs of the growing population

Provide for overall system reliability by allowing for the inspection, maintenance, repair, and replacement of aging infrastructure

Provide support for emerging recycled water reuse and biosolids beneficial use opportunities

Provide a long-term solution for meeting water quality requirements set forth by regulatory agencies

MFP use of identical objectives for a recommend plan is totally inadequate and incomplete for a specific proposed Project.

Without clear and consistently applied quantification objectives, the Project and assessments thereof cannot be considered as complete and adequate and the DEIR must be revised and recirculated.

p.MFP6-2 6.1.5.1 Program Versus Project...*program*...options or alternatives that are broad in nature and do not have a high level of detail...implemented in the long term.

project...a specific component of the comprehensive plan...in the short term, and a greater level of detail is required for its analysis in the MFP and the associated EIR/EIS.

...*program*...continuation of...current biosolids management practices...2050 planning

horizon...*project*...a new or modified ocean discharge system...next 10 years...address the effluent management needs of the JWPCP.

MFP use of identical objectives for a recommend plan would require that the Program and Project have identical systems and facilities but the proposed Project represents a totally inadequate and incomplete for a specific proposed Project.

Without clear and consistently applied quantification objectives, the Project and assessments thereof cannot be considered as complete and adequate and the DEIR must be revised and recirculated.

p.MFP6-58 6.4.3 Identification of Recommended Plan ...alternatives consist of program and project aspects....identical in all aspects except for...JWPCP effluent management...Alternative

4...is the **recommended plan alternative**...program and project elements of the **recommended plan** are:

Wastewater Conveyance and Treatment – CT 2A: Expansion at the SJCWRP; Process Optimization at the SJCWRP, POWRP, LCWRP, and LBWRP; and Additional Conveyance Capacity (*same in all 4*)

Solids Processing – SP 1A: Centralized Processing at the JWPCP *No changes*

Biosolids Management – BM 1: Current Practices: Beneficial Use/Landfill *No changes*

WRP Effluent Management – WE 1: Use of Current Effluent Management Systems *No changes*

JWPCP Effluent Management – JE 3: Figueroa...– Royal Palms (JWPCP West [working shaft];..to Royal Palms Beach [exit shaft]); and Rehabilitation of the Existing Ocean Outfalls...

MFP use of identical objectives for a recommend plan would require that the Program and Project have identical systems and facilities but the proposed Project represents a totally inadequate and incomplete for a specific proposed Project.

Without clear and consistently applied quantification objectives, the Project and assessments thereof cannot be considered as complete and adequate and the DEIR must be revised and recirculated.

p.MFP7-1/263 The five major program component areas are:

Wastewater conveyance and treatment

Solids processing

Biosolids management

Water reclamation plant (WRP) effluent management

JWPCP effluent management

...recommended program-level improvements are wastewater conveyance and treatment, solids processing, biosolids management, and WRP effluent management...area with recommended project-specific improvements is JWPCP effluent management.

MFP use of identical objectives for a recommend plan would require that the Program and Project have identical systems and facilities but the proposed Project represents a totally inadequate and incomplete for a specific proposed Project.

Without clear and consistently applied quantification objectives, the Project and assessments thereof cannot be considered as complete and adequate and the DEIR must be revised and recirculated.

1 Introduction

2 Existing Facilities

3 Alternatives Description

Program Alternatives do not include major building water conservation measures and recycling of effluent in the lower service areas. Apparently higher salts levels in lower

service areas could reflect high inflow and leakage which should be a major conservation/process-reduction measures.

Alternative 4 (Project) doesn't appear to be the best/shortest distance alternative, straight line alternative reduces length and associated impacts by 15+%. "Preferred" alternative should be dead straight line and deeper to the existing header perhaps with additional overflows between the existing onshore outfalls and the new one.

5 Air Quality p.5-26 **Locomotives Used During Tunneling Activities** Small, mining-type locomotives would be used to convey excavated material and personnel in rail cars through the tunnel alignments. Emissions from these diesel-powered locomotives were quantified using 5-27 EPA Tier 2 off-road diesel emission standards...were calculated based on the sulfur content of California diesel fuel of 15 ppm...assumed that up to 5 locomotives could operate simultaneously.

Traffic, odors, and air emissions impacts can be mitigated by a pressure-balancing rotating TBM-shield can use electric powered slurry line systems and a muck-dewatering at the JWPCP with odor control and dewatering systems. Similarly all tracked conveyance could use LPG or electric drive locomotives.

p.5-108 **5.4.6 Alternative 4 (Recommended Alternative)** Alternative 4 (Program) is the same as Alternative 1 (Program). The impacts for the JWPCP West shaft site for Alternative 4 (Project) would be the same as for Alternative 3 (Project). Alternative 4 (Project) includes a shaft site at Royal Palms Beach. The impacts for the existing ocean outfalls would be the same as for Alternative 1 (Project).

Alternatives do not include major building water conservation measures and recycling of effluent in the lower service areas. Apparently higher salts levels in lower service areas could reflect high inflow and leakage which should be a major conservation/process-reduction measures.

Alternative 4 doesn't appear to be the best/shortest distance alternative, straight line alternative reduces length and associated impacts by 15+%. "Preferred" alternative should be dead straight line and deeper to the existing header perhaps with additional overflows between the existing onshore outfalls and the new one.

7 Cultural Resources (Terrestrial and Marine)

22.4.1.3 Cultural Resources Significant and unavoidable impacts on paleontological resources...The rock face...could not be observed for the presence of paleontological resources...paleontological resources would be destroyed by the tunnel boring machine. Likewise, at a certain depth, paleontological resources may be encountered during construction at the shaft sites; these resources could not be observed and, if present, would also be destroyed. Impacts are relatively equal across the alternatives...in the longer alignments; thus, Alternatives 3 and 4 are preferred over Alternatives 1 and 2 based on alignment length.

7- The Project alternatives have been developed without the simplest onshore outfall element alternative: Straight Alignment from either the west JWPCP shaft-to-Intermediate Royal Palms shaft or central JWPCP shaft-to-Royal Palms-to-Angels Gate shafts.

Alternative 4...preferred alternative with regard to paleontological resources based on alignment length.

7- The Project alternatives have been developed without the simplest onshore outfall element alternatives: Straight Alignment from either the west JWPCP shaft-to-Intermediate Royal Palms shaft or central JWPCP shaft-to-Royal Palms-to-Angels Gate shafts.

8 Geology, Soils, and Mineral Resources

The Program facilities and proposed improvements of sewerage systems depend on a basic functional concept and related facilities - sludge is separated but not treated in the upper WRPs and is conveyed through onshore transmission sewers to the JWPCP facilities for treatment. Such concentration of sludge treatment and disposition places the entire sewerage system at risk from seismic and fault rupture due to the transit of sewers and sludge conveyance crossing numerous fault zones. This risk of significant environmental effects is not discussed in this Chapter 8.

Similarly risk of sludge handling disruption by seismic events and perhaps fault ruptures and damages to facilities is not assessed for the concentration of most if not all sludge processing in the JWPCP within an active fault zone.

Assessment of impacts for damage to sewerage facilities does not reflect effects of differential movement of large facilities (e.g., manholes, access-shafts, pump stations) and their interconnecting pipelines for both Program and Project level, and the differential movement of buried shafts and tunnels and connections with exposed or ballasted surface structures.

8.2.1.5 Non-Seismic Geologic Hazards - Subsidence

Measured ground subsidence occurs in areas where groundwater extraction, oil production, or other mining activities have lowered the ground surface...**Artificial recharge has managed the problem.**

The Project alternatives have been developed without the simplest onshore outfall element alternatives: Straight Alignment from either the west JWPCP shaft-to-Intermediate Royal Palms shaft or central JWPCP shaft-to-Royal Palms-to-Angels Gate shafts.

No locations/areas of subsidence are shown to relate to the proposed Project Alternatives nor the Program Alternatives.

No documentation for this statement is provided or referenced regarding artificial recharge successes and return of ground surface to original levels.

No consideration is given to significant changes in the Wilmington and Long Beach Oil Fields.

Boundary maps of oil fields and areas of >1ft historic subsidence and current residual subsidence of >1ft are not provided as part of Setting nor Assessment. No well-head, casing path, and well toes within 6000ft of the proposed Alternative 4 route.

8.2.3 Project Setting 8.2.3.1 Tunnel Alignment

Figure 8-2 Tunnel Depths [In-Plan -colored-segments rather than In-Section]

Figure 8-3a Map of Stratigraphic Relationships for Proposed Tunnel Alignments [Surface geology]

Figure 8-4 Generalized Geological Cross Section [Scale >2000ft, while maximum depth is 200ft]

Alternatives are not shown in reasonable scaled-sections; the plan alignments with colored segments do not relate the alignments with the geological settings through which Project tunnel alternatives would pass.

As tunnels, the surface geology does not provide adequate setting of the actual vertical tunnel alignment with respect to surface geological conditions.

Without such comparative depiction, no adequate assessment and meaningful comments can be made with regard to the risks of each alternative with the geological conditions of the ground responses to seismic tremors (e.g., depths of materials and length of tunnel susceptible to liquefaction).

8.2.3.1 Tunnel Alignment Table 8-7. Geologic Inventory of Hazards Along Tunnel

Alignments Sources: a Parsons 2011; b CDMG 1998e; c CDMG 1998f;

8.2.3.2 Shaft Sites Table 8-8. Geologic Inventory of Shaft Sites CDMG 1998f; d Parsons 2011;

Several liquefaction zones for shafts referencing CDMG rather than Parsons, while in alignments reference is only given for Parsons and no liquefaction zones are identified.

Discussions of shafts and their geological character can not be related to the colored geological sections provided.

Alternatives 1-3 includes outfall segments, while Alternative 4 uses existing diffuser sections, and no geological sections and settings are provided.

The above referenced sections are contradictory, totally inadequate and incomplete, and cannot provide the basis for an objective description of the project setting and potential impacts that may arise.

13 Marine Environment

p.13-42 13.4 Environmental Impacts and Mitigation Measures 13.4.1 Methodology and Assumptions

This section evaluates environmental impacts resulting from both the construction and operation of the project for each alternative. The primary project activities that could potentially affect the marine environment are:

Construction of a riser

Construction of a diffuser

Improvements to existing ocean outfalls

Operation of the new ocean discharge system

All of the program elements are located outside the marine environment; **some of the project elements** are located within the marine environment. Only...within the marine environment are discussed in the analysis.

p.13-132 13.4.6 Alternative 4 (Recommended Alternative) 13.4.6.1 Program Alternative 4 (Program) does not include marine elements and, therefore, has **no potential to have an impact on the marine environment.**

As all Program Alternatives have two central elements: sludge disposition and effluent disposition via JWPCP and all use ocean discharge for a near doubling of discharge of secondary-treated effluent, operations all Program alternatives. Program alternatives do not include intensive recycling of effluent and on-land disposition of effluent, and therefore all program alternatives impact the marine environment.

The Marine Environment Setting and Assessment does not identify the optimum location within San Pedro Bay for discharge and diffusion of a near-doubling of secondary treated effluent although it is widely restricted from any irrigation or recharge within the service areas of the JOS.

The Marine Environment Setting and Assessment are totally inadequate and incomplete and cannot provide the basis for an objective description of the project setting, program and project alternatives, and potential impacts that may arise within the marine environment.

p.13-46 13.4.1.2 Furthermore, the impact analysis for operation assumes the following:...The physical characteristics of the effluent released on the SP Shelf and PV Shelf would be the same as the existing effluent characteristics despite any change in location or change in depth of release...

p.13-133 13.4.6.2 Project The construction impacts for the rehabilitation of the existing ocean outfalls for Alternative 4 (Project) would be the same as for Alternative 1 (Project). Operational impacts would be the same as baseline conditions; therefore, there would be no operational impacts for the existing ocean outfalls under Alternative 4 (Project)..

As the DEIR-Project does not locate within the Marine study area the optimal location for discharge and diffusion of a doubling of the treated effluent load, the assessment appears to be bias to justifying the existing discharge area for a doubling of existing nutrient and freshwater daily loads. The discharge characteristics are simply assumed to be identical to those at present although with the current and future anticipated water recycling and conservation characteristics can be assumed to change perhaps in those elements which may not be regulated through the current secondary treatment requirements for discharge, e.g., salts, boron, chemicals of concern, TPH, etc.). The Marine Environment Setting and Assessment does not identify the optimum location within San Pedro Bay for discharge and diffusion of a near-doubling of secondary treated effluent although it is widely restricted from any irrigation or recharge within the service areas of the JOS.

The Marine Environment Setting and Assessment are totally inadequate and incomplete and cannot provide the basis for an objective description of the project setting, program and project alternatives, and potential impacts that may arise within the marine environment.

15 Employment, Housing, Socioeconomics, and Environmental Justice

p.15-18 Environmental Justice. The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. (EPA 2004:Section 2.2.)

p.15-22 15.3.3.2 South Coast Air Quality Management District In 1997, the South Coast Air Quality Management District (SCAQMD) adopted a set of guiding principles on environmental justice...initiatives led to the SCAQMD Board's approval of the 2003–2004 Environmental Justice Workplan. SCAQMD intends to update this as needed to reflect ongoing and new initiatives..."right to equal protection from air pollution and fair access to the decision making process that works to improve the quality of air within their communities."..."...equitable environmental policymaking and enforcement to protect the health of all residents, regardless of age, culture, ethnicity, gender, race, socioeconomic status, or geographic location, from the health effects of air pollution."

p.15-23 15.3.4.1 General Plan of the City of Los Angeles Environmental Justice...adopted environmental justice policies as outlined in its framework and transportation elements; these policies are summarized in this section. The framework element is a “strategy for long-term growth which sets a citywide context to guide the update of the community plan and citywide elements.”...policy to “assure the fair treatment of people of all races, cultures, incomes and education levels with respect to the development, implementation and enforcement of environmental laws, regulations and policies, including affirmative efforts to inform and involve environmental groups, especially environmental justice groups, in early planning stages through notification and two-way communication.”

...Compact for Environmental Justice, which was adopted by the City’s Environmental Affairs Department as the City’s foundation for a sustainable urban environment. Statements relevant to the proposed project include the following:

All people in Los Angeles are entitled to equal access to public open space and recreation, clean water, and uncontaminated neighborhoods.

All planning and regulatory processes must involve residents and community representatives in decision making from start to finish.

p.15-46 Environmental justice impacts would be considered indirect impacts with respect to the Corps’ NEPA scope of analysis described in **Section 3.5**.

As indicated elsewhere, the JOS service areas of are clearly not treated identically and the upper service areas are not subject to the same potential risks of sludge treatment and treated effluent malfunctions as those south of I-5, the lower service areas. Similarly the upper service areas receive the benefits of higher level treated recycled irrigation water that are not provided to residents and ratepayers in the lower service areas.

Therefore, the DEIR contains contradictory, totally inadequate and incomplete, assessment of environmental justice issues and without specific mitigation the effects must be considered as significant.

22 Comparison of Alternatives 22.2.1 CEQA Requirements

The CEQA requirements for the evaluation of alternatives...an EIR present a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the **basic project objectives** but would avoid or substantially lessen any significant effects of the project...requires an evaluation of the comparative merits of the alternatives. An EIR is not required to consider alternatives that are infeasible.

Elsewhere in the comments, alternatives and mitigation have been proposed which have not been considered and which cannot be considered infeasible without incorporating more environmental justice issues:

- a. Full recycling of advanced treated effluent from and local sludge disposition systems for all service areas*
- b. Onshore outfall along a straight line from JWPCP to the Royal Palms Header;*
- c. Slurry pipeline from EPB-TBM to JWPCP;*
- d. Marine disposal site based on the most favorable (optimal) location for discharge and diffusion of a doubling of current loads;*
- e. Screening and sampling of paleontological materials from slurry or cart conveyed-systems*

Without fuller review of alternatives, the program and project DEIR cannot be considered adequate and/or complete.

23 Significant Irreversible Impacts - 23.2 Analysis of Irreversible Changes

p.23-1 - 2 The tunnel boring...could damage or destroy unknown, unique paleontological resources...as discussed in Chapter 7...would be significant and irreversible...other significant impacts...would not be irreversible.

...Alternative 4 **would result** in significant irreversible changes...**could result** in significant irreversible damages to paleontological resources during construction...commitments and damages would occur in accordance with the Clearwater Program...significant irreversible changes...**deemed acceptable in light of the Clearwater Program's overall benefits.**

As indicated elsewhere, mitigation of paleontological impacts exists but the assessment has centered entirely on those remains which would be >1in in diameter, while significant paleontological resources and information are gathered and used for every drilling operation for gas and oil in Los Angeles County and even within the onshore and marine environment of the Project.

Without fuller review of available mitigation, the program and project DEIR's assessment of irreversible impacts cannot be considered adequate and/or complete.

We respectfully submit these comments.

Charming Evelyn
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Sierra Club Angeles Chapter