SAN LUIS OBISPO COUNTY

DEPARTMENT OF PLANNING AND BUILDING

THIS IS A NEW PROJECT REFERRAL

DATE: 9/11/2012

TO: _____

FROM: Murry Wilson, Coastal Team

PROJECT DESCRIPTION: DRC2012-00015 TOSCO- Minor Use Permit for grading on less than 3 acres. Site located off Willow Road in Arroyo Grande. APN: 092-401-011.

Return this letter with your comments attached no later than: 14 days from receipt of this referral. CACs please respond within 60 days. Thank you.

PART 1 - IS THE ATTACHED INFORMATION ADEQUATE TO COMPLETE YOUR REVIEW?

- ❑ YES (Please go on to PART II.)
- ❑ NO (Call me ASAP to discuss what else you need. We have only 10 days in which we must obtain comments from outside agencies.)

PART II - ARE THERE SIGNIFICANT CONCERNS, PROBLEMS OR IMPACTS IN YOUR AREA OF REVIEW?

- ❑ YES (Please describe impacts, along with recommended mitigation measures to reduce the impacts to less-than-significant levels, and attach to this letter**)**
- ❑ NO (Please go on to PART III)

PART III - INDICATE YOUR RECOMMENDATION FOR FINAL ACTION.

Please attach any conditions of approval you recommend to be incorporated into the project's approval, or state reasons for recommending denial.

IF YOU HAVE "NO COMMENT," PLEASE SO INDICATE, OR CALL.

_____

_____

_____

_____ _____ _____

Date Name Phone

LAND USE PERMIT APPLICATION PACKAGE

SAN LUIS OBISPO COUNTY DEPARTMENT OF PLANNING AND BUILDING
976 OSOS STREET • ROOM 200 • SAN LUIS OBISPO • CALIFORNIA 93408 • (805) 781-5600

Promoting the Wise Use of Land • Helping to Build Great Communities

NOTE: *Your application is public record and information regarding your application is available both in person at the Department of Planning and Building in the County Government Center and on the County Planning and Building Department's website. All references to names, addresses, telephone numbers, email addresses and project information are part of this public record. All applications must be filed under the property owner's name and address of the property that is the subject of the application; however, you may use an alternate contact address and telephone number.*

REQUIRED CONTENTS

The following information is required to be submitted with your application. If any information is missing, your application may be returned to you until such time as all required materials are included with the submittal.

COPIES – Please provide the following number of copies:

- ☑ 15 copies of the Completed General Application Form
- ☑ 1 copy of the Consent of Landowner Form (if applicant does not own the property)
- ☑ 15 copies of the Completed Land Use Permit Application Form
- ☑ 1 copy of the Environmental Description Form
- ☑ 1 copy of the Signed Information Disclosure Form
- ☐ Completed Accessory Application Form(s) (if applicable) - Curb, Gutter & Sidewalk Waiver, Tree Removal, Variance, Lodge Hill, etc. (these forms are NOT in this package and can be obtained at the Planning and Building Front Counter)

Attachments Included: Attachment 1 - CEQA Environmental Information Form with Biological Survey Report; Attachment 2 - Legal Lot Verification; Attachment 3 - Fire Prevention Plan

FEES – Application fees will be calculated at the time of submittal (see last page for fee summary).

PLANS - If any of the information included as part of this application is available in digital format, please enclose the information via digital media.

SITE LAYOUT PLAN - an accurate drawing of the property. The site plan must show the following items (where they apply to your site):

- ☑ Exterior boundaries and dimensions of the entire site.
  Phillips 66 Refinery: Figure 1. Project Site: Figure 2.
- ☑ North arrow and scale.
  Phillips 66 Refinery: Figure 1. Project Site: Figure 2.
- ☑ Slope Contour Map (except when a grading plan is required) showing the following:
  Inside urban reserve lines - show contours at 5-feet intervals for undeveloped areas and 2-feet intervals for building sites and paved or graded areas.
  Outside urban reserve lines - show contours at 10-feet intervals for undeveloped areas and 2-feet intervals for building sites.
  Steep slopes - areas in excess of 30% slope may be designated as such and contours omitted, unless proposed for grading, construction or other alterations.
  Phillips 66 Refinery: USGS Topo Map as shown on Figure 1 and Figure 3.
  Project Site: Grading plan to be prepared and will include contours.

- ☑ General location of major topographic and man-made features, such as rock outcrops, bluffs, streams, swales and graded areas.
  Phillips 66 Refinery: Figure 4. Project Site: Figure 2
- ☑ Location, dimensions and use of all existing and proposed structures on the property, including buildings, decks, balconies, fences, walls, and other structural elements that extend into yard areas. *Phillips 66 Refinery: Figure 5*
  Project Site: No existing structures present and no structures proposed.
- ☑ Location, name, width, and pavement type of adjacent and on-site streets/alleys.
  Refinery: Figure 6. Project Site: No streets/alleys are located on or adjacent to the project site.
- ☑ Existing/proposed curbs, gutters & sidewalks. All points of access, both existing and proposed.
  No existing or proposed curbs, gutters, or sidewalks are located on the project site.
- ☑ Types and location of existing/proposed water supply and sewage disposal facilities.
  Refinery: Figures 7 and 8. Project Site: No existing or proposed water supply or sewage disposal facilities.
- ☑ Location and dimensions of all existing/proposed easements, driveways and parking areas (enclosed or open), including pavement type.
  Refinery: Figure 9. Project Site: No existing or proposed easements, driveways, or parking areas.
- ☑ Location, diameter (at 4 feet above grade), species, approximate canopy cover (dripline) of all trees on the site, noting which will remain and which are proposed for removal, and include proposals for replacement of trees to be removed.
  Refinery: Figure 10. Project Site: A biological survey identified two trees located on the project site. Possible removal of the trees will be dependent on results of remediation activities. Attached biological survey conducted by Tenera Environmental on March 1, 2012.
- ☑ All areas proposed for grading and landscaping.
  See Figure 2. No areas are proposed for landscaping. More grading information will be provided in the grading plan.
- ☑ Any areas proposed to be reserved and maintained as open space.
  No areas are proposed to be reserved for open space.
- ☑ Location, use and approximate dimensions of all structures within 100 feet of the site's boundaries. *Refinery: As shown on Figure 11, Cal Fire station only structure possibly within 100 feet of refinery boundaries.*
  Project Site: No structures are within 100 feet of the project site boundaries.
- ☑ A vicinity map showing precisely how to drive to the site. (include street names and distances to help with describing how to get to the site)
  Figure 12.
- ☑ Coastal Access - If the project is within the coastal zone and located between the ocean and the nearest public road, applications shall include the locations of the nearest public access points to the beach *See Figure 13. Coastal access is via the Oceano Dunes State Park.*

PRELIMINARY FLOOR PLANS AND ARCHITECTURAL ELEVATIONS - showing height of buildings and structures, color, texture and material of exterior finishes and roofing (not required for most agricultural buildings).

ELEVATIONS - (relative height) from the finish floor of the garage or other parking area to the edge of the pavement or road at the driveway entrance.

COPIES OF PLANS - If any of the information included as part of this application is available in digital format, please enclose the information via digital media.

Full-Sized Plans

- ☑ 7 copies of all drawings in a full-size format (larger than 11 by 17 inch page).

Drawings to be included in grading plan.

Reductions

- ☑ 8 copies of all drawings reduced to the size of an 8-1/2 by 11 inch page.
- ☑ 1 copy of all drawings reduced to the size of an 11 by 17 inch page.

Drawings to be included in grading plan.

OTHER INFORMATION

Legal Lot Verification - how the parcel(s) was legally created.

Assessor's Parcel No. 092-401-011 Attachment 2.

Abandoned oil and gas wells - if applicable - information is available from the California Division of Oil & Gas, Post Office Box 227, Santa Maria, California 93456, (805) 925-2686.

None.

SUPPLEMENTAL INFORMATION

The following information may be required to be submitted before a review of the application can be completed. If you had a pre-application meeting, and items are checked on this checklist, they are required to be submitted with your application.

- ❑ Preliminary Landscaping Plan prepared pursuant to Section 22/23.04.180 et seq.
- ☑ Fire Safety Plan prepared pursuant to Section 22/23.05.080 et seq. *Attachment 3*
- ❑ Preliminary Grading/Drainage Plan - when required by Section 22/23.05.020 & .040
- ❑ Agricultural Buffers - if adjacent parcels are used for agriculture, show all proposed agricultural buffers.
- ❑ Archeological Report - where required, submit two copies.
- ❑ Botanical Report - where required, submit two copies.
- ☑ Biological Report - where required, submit two copies.
- ❑ Building Site Envelopes - on site layout plan show all areas proposed for development, or areas proposed to be excluded from development.
- ❑ Noise Study - if the property either adjoins or will be a noise generator or a potential source of noise.
- ❑ Traffic Study - where required, submit two copies.
- ❑ Geologic Report - where required, submit two copies.
- ❑ Visual Analysis - for applications that propose development along significant visual corridors (such as Highway 101 and 1).
- ❑ Location, size, design and text of all existing and proposed signs.
- ❑ Location and design of solid waste disposal facilities - as required by Section 2/23.04.280.
- ❑ Cross-section drawings. The drawings shall include two sectional views of the project, approximately through the middle and at right angles to each other. The existing and proposed grades and the location of and distances between buildings, parking and landscaping shall also be provided.
- ❑ Supplemental Development Statement stating the project's phasing schedule (if one is proposed), and any information that is pertinent or helpful to the understanding of the proposal, such as photos, statistical data, petitions, etc.
- ❑ Water will-serve letter OR Well pump test (4-72 hour).
- ❑ Sewer will-serve letter OR Percolation tests.
- ❑ County Public Works road requirements.
- ❑ Road Plan and Profile / Culvert Plan and Profile / Streetscape Plan.
- ❑ Cost Accounting Agreement.

GENERAL APPLICATION FORM

San Luis Obispo County Department of Planning and Building File No _____

APPLICATION TYPE - CHECK ALL THAT APPLY

- ☐ Emergency Permit
- ☐ Site Plan
- ☐ Conditional Use Permit/Development Plan
- ☐ Curb, Gutter & Sidewalk Waiver
- ☐ Tree Permit
- ☑ Minor Use Permit
- ☐ Plot Plan
- ☐ Variance
- ☐ Surface Mining/Reclamation Plan
- ☐ Modification to approved land use permit
- ☐ Zoning Clearance
- ☐ Other

APPLICANT INFORMATION Check box for contact person assigned to this project

☐ Landowner Name *Phillips 66 Company - c/o Kristen Kopp* Daytime Phone *805-343-3241*
Mailing Address *2555 Willow Road, Arroyo Grande, CA* Zip Code *93420*
Email Address: *Kristen.M.Kopp@p66.com*

☐ Applicant Name *Phillips 66 Company - c/o Marty Hall-Burr* Daytime Phone *805-343-3212*
Mailing Address *2555 Willow Road, Arroyo Grande, CA* Zip Code *93420*
Email Address: *Marty.Burr@p66.com*

☑ Agent Name *Stantec Consulting Corporation* Daytime Phone *805-546-0455*
Mailing Address *3437 Empresa Drive, Ste. A* Zip Code *93430*
Email Address: *kirk.henning@stantec.com*

PROPERTY INFORMATION

Total Size of Site: *Approximately 4 acres (project site only)* Assessor Parcel Number(s): *Portion of 092-401-011*
Legal Description: *Standard eucalyptus tract, Rancho Bolsa de Chemical, San Luis Obispo County*
Address of the project (if known): *2555 Willow Road, Arroyo Grande, CA 93420*
Directions to the site (including gate codes) - describe first with name of road providing primary access to the site, then nearest roads, landmarks, etc.: *Take Hwy 101 south, take exit 187B (Halcyon Rd), turn left on CA-1/Cienaga St, enter at second entrance to the refinery (Gate 1), park in the visitors parking area, and notify guard of arrival.*
Describe current uses, existing structures, and other improvements and vegetation on the property:
Inactive coke storage mounds and dune habitat. No structures.

PROPOSED PROJECT

Describe the proposed project (inc. sq. ft. of all buildings): *As required by DTSC Consent Order HWCA 20113629, remove an estimated 10,320 cubic yards of vanadium and nickel impacted soil and transport by rail to a disposal facilitiy in Utah. The estimated volumes are based on prior environmental investigations.*

LEGAL DECLARATION

I, the owner of record of this property, have completed this form accurately and declare that all statements here are true. I do hereby grant official representatives of the county authorization to inspect the subject property.

Phillips 66 Company, by and through Santa Maria Refinery, Site Manager
~~Property owner signature~~ Jerry Stumbo / Stumbo Date 7/20/2012

FOR STAFF USE ONLY

Reason for Land Use Permit: _____

CONSENT OF LANDOWNER

San Luis Obispo County Department of Planning and Building File No _____

I (we) the undersigned owner of record of the fee interest in the parcel of land located at (print address): *2555 Willow Road, Arroyo Grande, CA 93420*, identified as Assessor Parcel Number *Portion of 092-401-011*, for which a construction permit, land use permit, land division, general plan or ordinance amendment, or LAFCo application referral is being filed with the county requesting an approval for: *Minor Use Permit* (specify type of project, for example: addition to a single family residence; or general plan amendment), do hereby certify that:

1. Such application may be filed and processed with my (our) full consent, and that I (we) have authorized the agent named below to act as my (our) agent in all contacts with the county and to sign for all necessary permits in connection with this matter.

2. I (we) hereby grant consent to the County of San Luis Obispo, its officers, agents, employees, independent contractors, consultants, sub-consultants and their officers, agents, and employees to enter the property identified above to conduct any and all surveys and inspections that are considered appropriate by the inspecting person or entity to process this application. This consent also extends to governmental entities other than the county, their officers, agencies, employees, independent contractors, consultants, sub-consultants, and their officers agents or employees if the other governmental entities are providing review, inspections and surveys to assist the county in processing this application. This consent will expire upon completion of the project.

3. If prior notice is required for an entry to survey or inspect the property. Please contact:
   Print Name: *Kristen Kopp*
   Daytime Telephone Number: *805-343-3241*

4. I (we) hereby give notice of the following concealed or unconcealed dangerous conditions on the property _____

PERSON OR ENTITY GRANTING CONSENT:

Print Name: *Jerry Stumbo, Santa Maria Refinery, Site Manager*

Print Address: *2555 Willow Road, Arroyo Grande, CA 93420*

Daytime Telephone Number: *805-343-3278*

Signature of landowner: Jerry Stumbo / Stumbo Date: 7/20/2012

AUTHORIZED AGENT:

Print Name: *Kirk Henning - Stantec Consulting Corporation*

Print Address: *3437 Empresa Drive, Ste. A 93401*

Daytime Telephone Number: *805-250-2854*

Signature of authorized agent: _____ Date: 7/20/2012

LAND USE PERMIT APPLICATION

San Luis Obispo County Department of Planning and Building File No _____

Type of project: ❑ Commercial ❑ Industrial ❑ Residential ❑ Recreational ☑ Other
As required by DTSC Consent Order HWCA 20113629, remediation project (removal of soil impacted by vanadium and nickel, and transportation by rail, to a disposal facility in Utah. Estimated volume amounts total approximately 10,320 cubic yards based on previous environmental investigations.

Describe any modifications/adjustments from ordinance needed and the reason for the request (if applicable): *No changes requested or needed from ordinance.*

Describe existing and future access to the proposed project site: *No change to existing access.*

Surrounding parcel ownership: Do you own adjacent property? ❑ Yes ☑ No
If yes, what is the acreage of all property you own that surrounds the project site? _____

Surrounding land use: What are the uses of the land surrounding your property (when applicable, please specify all agricultural uses):
North: *Residential/Commerical* South: *Agricultural*
East: *Industrial/Agricultural* West: *Agricultural*

For all projects, answer the following:
Square footage and percentage of the total site (approximately) that will be used for the following:
Buildings: _____ sq. feet _____% Landscaping: _____ sq. feet _____ %
Paving: _____ sq. feet _____% Other (specify) *Project does not include development.*
Total area of all paving and structures: _____ ❑ sq. feet ❑ acres
Total area of grading or removal of ground cover: *Approx. 0.7 acres* ❑ sq. feet ❑ acres
Number of parking spaces proposed: _____ Height of tallest structure: _____
Number of trees to be removed: *Potentially two.* Type: *Golden Wattle and Arroyo Willow*
Setbacks: Front _____ Right_____ Left_____ Back_____

Proposed water source: ❑ On-site well ❑ Shared well ☑ Other *Water provided by adjacent refinery.*
❑ Community System - List the agency or company responsible for provision:_____
Do you have a valid will-serve letter? ❑ Yes ❑ No (If yes, please submit copy)

Proposed sewage disposal: ❑ Individual on-site system ☑ Other *Not applicable, undeveloped site.*
❑ Community System - List the agency or company responsible for sewage disposal: _____
Do you have a valid will-serve letter? ❑ Yes ❑ No (If yes, please submit copy)

Fire Agency: List the agency responsible for fire protection: *Cal Fire-Area No. 21 County service*

For commercial/industrial projects answer the following:
Total outdoor use area: _____ ❑ sq. feet ❑ acres
Total floor area of all structures including upper stories: _____ sq. feet

For residential projects, answer the following:
Number of residential units:_____ Number of bedrooms per unit: _____
Total floor area of all structures including upper stories, but not garages and carports:_____
Total of area of the lot(s) minus building footprint and parking spaces: _____

ENVIRONMENTAL DESCRIPTION FORM

San Luis Obispo County Department of Planning and Building File No _____

The California Environmental Quality Act (CEQA) requires all state and local agencies to consider and mitigate environmental impacts for their own actions and when permitting private projects. The Act also requires that an environmental impact report (EIR) be prepared for all actions that may significantly affect the quality of the environment. The information you provide on this form will help the Department of Planning and Building determine whether or not your project will significantly affect the quality of the environment.

To ensure that your environmental review is completed as quickly as possible, please remember to:

a. Answer **ALL** of the questions as accurately and completely as possible.
b. Include any additional information or explanations where you believe it would be helpful or where required. Include additional pages if needed.
c. If you are requesting a land division or a re-zoning, be sure to include complete information about future development that may result from the proposed land division or rezoning.
d. Include references to any reports or studies you are aware of that might be relevant to the questions asked or the answers you provide.

Should a determination be made that the information is inaccurate or insufficient, you will be required to submit additional information upon request.

Physical Site Characteristic Information

Your site plan will also need to show the information requested here:

1. Describe the topography of the site:
   Level to gently rolling, 0-10% slopes: *Refinery: 1,800+/-* *Project Site: 2+/-* acres
   Moderate slopes of 10-30%: *Project Site: 1+/-* acres
   Steep slopes over 30%: _____ acres
2. Are there any springs, streams, lakes or marshes on or near the site? ☐ Yes ☑ No
   If yes, please describe: _____
3. Are there any flooding problems on the site or in the surrounding area? ☐ Yes ☑ No
   If yes, please describe: _____
4. Has a drainage plan been prepared? ☐ Yes ☑ No
   If yes, please include with application.
5. Has there been any grading or earthwork on the project site? ☑ Yes ☐ No
   If yes, please explain: *Remediation project site is within operating footprint of the refinery and grading historically performed as part of refinery operations.*
6. Has a grading plan been prepared? ☐ Yes ☑ No
   If yes, please include with application.
7. Are there any sewer ponds/waste disposal sites on/adjacent to the project? ☐ Yes ☑ No
8. Is a railroad or highway within 300 feet of your project site? ☑ Yes ☐ No
9. Can the proposed project be seen from surrounding public roads? ☐ Yes ☑ No
   If yes, please list: _____

Water Supply Information

1. What type of water supply is proposed? *Remediation project only, does not include development - no water supply proposed.*
   ❑ Individual well ❑ Shared well ❑ Community water system
2. What is the proposed use of the water?
   ❑ Residential ❑ Agricultural - Explain _____
   ❑ Commercial/Office - Explain _____
   ❑ Industrial – Explain _____
3. What is the expected daily water demand associated with the project? _____
4. How many service connections will be required? _____
5. Do operable water facilities exist on the site?
   ☑ Yes ❑ No If yes, please describe: *Four production wells located at the adjacent refinery.*
6. Has there been a sustained yield test on proposed or existing wells?
   ❑ Yes ☑ No If yes, please attach.
7. Does water meet the Health Agency's quality requirements?
   Bacteriological? ☑ Yes ❑ No
   Chemical? ☑ Yes ❑ No
   Physical ☑ Yes ❑ No
   Water analysis report submitted? ☑ Yes ❑ No *Potable Water System #4000225*
8. Please check if any of the following have been completed on the subject property and/or submitted to County Environmental Health.
   ❑ Well Driller's Letter ❑ Water Quality Analysis ❑ OK or ❑ Problems
   ❑ Will Serve Letter ❑ Pump Test _____ Hours_____G.P.M.
   ❑ Surrounding Well Logs ❑ Hydrologic Study ☑ Other *Groundwater monitoring well information.*

Please attach any letters or documents to verify that water is available for the proposed project.

Sewage Disposal Information

If an on-site (individual) subsurface sewage disposal system will be used:

No change in disposal operations will occur as a result of the remediation project.

1. Has an engineered percolation test been accomplished?
   ❑ Yes ❑ No If yes, please attach a copy.
2. What is the distance from proposed leach field to any neighboring water wells? _____ feet
3. Will subsurface drainage result in the possibility of effluent reappearing in surface water or on adjacent lands, due to steep slopes, impervious soil layers or other existing conditions?
   ❑ Yes ❑ No
4. Has a piezometer test been completed?
   ❑ Yes ❑ No
5. Will a Waste Discharge Permit from the Regional Water Quality Control Board be required?
   ❑ Yes ❑ No *(a waste discharge permit is typically needed when you exceed 2,500 gallons per day)* *Refinery: Current NPDES Permit #CA0000051*

If a community sewage disposal system is to be used:

No change in disposal operations will occur as a result of the remediation project.

1. Is this project to be connected to an existing sewer line? ❑ Yes ❑ No
   Distance to nearest sewer line: _____ Location of connection: _____
2. What is the amount of proposed flow? _____ G.P.D.
3. Does the existing collection treatment and disposal system have adequate additional capacity to accept the proposed flow? ❑ Yes ❑ No

Solid Waste Information

1. What type of solid waste will be generated by the project?
   ❑ Domestic ❑ Industrial ❑ Agricultural ☑ Other, please explain? *Soil impacted by vanadium and nickel.*
2. Name of Solid Waste Disposal Company: *Waste By Rail, Inc. transporting to ECDC landfill located in East Carbon, Utah*
3. Where is the waste disposal storage in relation to buildings? *Refinery: No change to current operations. Project Site: No long ~~term storage.~~*
4. Does your project design include an area for collecting recyclable materials and/or composting materials? ❑ Yes ☑ No

Community Service Information

1. Name of School District: *Lucia Mar School District*
2. Location of nearest police station: *200 North Halcyon Road, Arroyo Grande, CA 93420*
3. Location of nearest fire station: *CalFire Station No. 22, 2391 Willow Rd., Arroyo Grande, CA 93420*
4. Location of nearest public transit stop: *25th Street at Hwy1, Oceano, CA (South Coast Area Transit)*
5. Are services (grocery/other shopping) within walking distance of the project? ❑ Yes ☑ No
   If yes, what is the distance? _____ feet/miles

Historic and Archeological Information

1. Please describe the historic use of the property:
   See DTSC CEQA Environmental Information Form (Attachment 1)
2. Are you aware of the presence of any historic, cultural or archaeological materials on the project site or in the vicinity? ☑ Yes ❑ No
   If yes, please describe: *See DTSC CEQA Environmental Information Form (Attachment 1)*
3. Has an archaeological surface survey been done for the project site? ❑ Yes ☑ No
   If yes, please include two copies of the report with the application.

Commercial/Industrial Project Information

Only complete this section if you are proposing a commercial or industrial project or zoning change.

1. Days of Operation: *Refinery: 365* Hours of Operation: *Refinery: 24 hrs. per day*
2. How many people will this project employ? *Refinery: No change from existing operations.*
3. Will employees work in shifts? ☑ Yes *(Refinery)* ❑ No
   If yes, please identify the shift times and number of employees for each shift _____
   Refinery: No change from existing operations.
4. Will this project produce any emissions (i.e., gasses, smoke, dust, odors, fumes, vapors)?
   ☑ Yes ❑ No If yes, please explain: *Dust from remediation project to be suppressed as per APCD Permit.*
5. Will this project increase the noise level in the immediate vicinity? ❑ Yes ☑ No
   If yes, please explain:_____
   (If loud equipment is proposed, please submit manufacturers estimate on noise output.)
6. What type of industrial waste materials will result from the project? Explain in detail: _____
   Remediation of vanadium and/or nickel impactected soil to be transported by rail and disposed at ECDC Landfill in Utah.
7. Will hazardous products be used or stored on-site? ❑ Yes ☑ No
   If yes, please describe in detail:_____
8. Has a traffic study been prepared? ❑ Yes ☑ No If yes, please attach a copy.

9. Please estimate the number of employees, customers and other project-related traffic trips to or from the project: Between 7:00 - 9:00 a.m. ____5_____ Between 4:00 to 6:00 p.m. _____
10. Are you proposing any special measures (carpooling, public transit, telecommuting) to reduce automobile trips by employees ❑ Yes ☑ No
    If yes, please specify what you are proposing: _____
11. Are you aware of any potentially problematic roadway conditions that may exist or result from the proposed project, such as poor sight distance at access points, connecting with the public road?
    ❑ Yes ☑ No If yes, please describe: _____

Agricultural Information

Not Applicable

Only complete this section if your site is: 1) Within the Agricultural land use category, or 2) currently in agricultural production.

1. Is the site currently in Agricultural Preserve (Williamson Act)? ❑ Yes ❑ No
2. If yes, is the site currently under land conservation contract? ❑ Yes ❑ No
3. If your land is currently vacant or in agricultural production, are there any restrictions on the crop productivity of the land? That is, are there any reasons (i.e., poor soil, steep slopes) the land cannot support a profitable agricultural crop? Please explain in detail: _____
   _____

Special Project Information

Not applicable - no development proposed.

1. Describe any amenities included in the project, such as park areas, open spaces, common recreation facilities, etc.(these also need to be shown on your site plan): _____
   _____
2. Will the development occur in phases? ❑ Yes ❑ No
   If yes describe: _____
3. Do you have any plans for future additions, expansion or further activity related to or connected with this proposal? ❑ Yes ❑ No If yes, explain: _____
   _____
4. Are there any proposed or existing deed restrictions? ❑ Yes ❑ No
   If yes, please describe: _____

Energy Conservation Information

Not applicable - no development proposed.

1. Describe any special energy conservation measures or building materials that will be incorporated into your project *: _____

*The county's Building Energy Efficient Structures (BEES) program can reduce your construction permit fees. Your building must exceed the California State Energy Standards (Title 24) in order to qualify for this program. If you are interested in more information, please contact the Building Services Division of the Department of Planning and Building at (805) 781-5600.

Environmental Information

1. List any mitigation measures that you propose to lessen the impacts associated with your project:
   See "Biological Resources" section of the DTSC CEQA Environmental Information Form (attached). Mitigation measures to be determined.
   Particulate matter mitigation is required by SLOAPCD, dust suppression and control by wetting.
   _____

2. Are you aware of any unique, rare or endangered species (vegetation or wildlife) associated with the project site? ☑ Yes ☐ No
   If yes, please list: *See "Biological Resources" section of the DTSC CEQA Environmental Information Form (Attachment 1)*
3. Are you aware of any previous environmental determinations for all or portions of this property?
   ☐ Yes ☑ No
   If yes, please describe and provide "ED" number(s): _____

Other Related Permits

1. List all permits, licenses or government approvals that will be required for your project (federal, state and local): *Permit to Operate by San Luis Obispo County Air Pollution Control District. DTSC CEQA Determination and RWQCB SWPPP.*

   (If you are unsure if additional permits are required from other agencies, please ask a member of the Planning Department staff currently assigned in either Current Planning or the Environmental Division.)

INFORMATION DISCLOSURE FORM

San Luis Obispo County Department of Planning and Building File No _____

TIME LIMITS FOR PROCESSING AND PUBLIC NOTICE DISTRIBUTION REQUIREMENTS - California state law (California Government Code Section 65941.5) requires that the county provide the following information to applicants, when a permit application is filed:

Not later than 30 days after a land use or land division application is received, the county must notify the project applicant or designated representative in writing either that the application is complete, or that items are necessary to complete the application. If you are not notified in writing, the application is considered complete. Any land use or land division application must be approved or denied within three months of adoption of the Negative Declaration or determination that the project is exempt, or within six months of the certification of an Environmental Impact Report. The County of San Luis Obispo processes the land use application and the environmental review concurrently, so these decisions are made simultaneously. (Government Code Sections 65943 and 65950, et seq.)

A project applicant may make a written request to the county to receive notice of any proposal to adopt or amend the general plan and the land use, real property division, building and construction, road name and addressing, and growth management ordinances which might reasonably be expected to affect that applicant's project. The county offers a subscription service for notification of either: (1) all applications received by the county, or (2) Planning Commission agendas. The cost for each of these services is established by the county fee ordinance. (Government Code Sections 65945, 65945.3 and 65945.5)

When a property was created through recordation of a final or parcel map, and it is within five years of recordation, the county cannot withhold or condition the issuance of building permits for residential units based on conformance with conditions that could have been imposed as conditions of the tentative map, except where: (1) A failure to do so would place subdivision residents or residents in the immediate area in a condition perilous to health, safety or both; or (2) The condition is required in order to comply with state or federal law. (Government Code Section 65961)

Copies of Government Code Sections are available at the County of San Luis Obispo Law Library, County Government Center, San Luis Obispo, California.

RIGHT TO FARM DISCLOSURE - The County of San Luis Obispo recognizes the statewide policy to protect and encourage Agriculture. Sections 3482.5 and 3482.6 of the California Civil Code and Chapter 5.16. of the San Luis Obispo County Code protect certain, pre-existing agricultural production and processing operations ("agricultural operation") from nuisance claims. If your property is near a protected agricultural operation, you may be subject to certain inconveniences and/or discomforts which are protected by law. In order for the agricultural operation to be protected, the following requirements of Civil Code Sections 3482.5 and 3482.6 must be satisfied:

(1) The agricultural operation must be conducted or maintained for commercial purposes; (2) The agricultural operation must be conducted or maintained in a manner consistent with proper and accepted customs and standards as established and followed by similar agricultural operations in the same locality; (3) The agricultural operation predated the affected use(s) on your property; (4) The agricultural operation has been in existence for more than three years; and (5) The agricultural operation was not a nuisance at the time it began.

If your property is near an agricultural operation in the unincorporated area of the County which satisfies the above requirements, you may at times be subject to one or more inconveniences and/or discomfort arising from that operation. Such inconveniences may include (depending upon the type of agricultural operation protected), but are not necessarily limited to, the following: noise, odors, fumes, dust, legal pesticide use, fertilizers, smoke, insects, farm personnel and truck traffic, visual impacts, night time lighting, operation of machinery and the storage, warehousing and processing of agricultural products or other inconveniences or discomforts associated with the protected agricultural operations. For additional information pertaining to this disclosure and the Right to Farm Ordinance, or concerns with an agricultural operation, please contact the San Luis Obispo County Agricultural Commissioner's Office.

HAZARDOUS WASTE AND SUBSTANCE SITES AND LANDFILL DISCLOSURE - Please verify whether your project is on the Known Hazardous Waste and Substances Sites List pursuant to AB 3750 and if you are within ½ mile of certain landfills (see back of sheet).

PLEASE COMPLETE AND SIGN BELOW

I acknowledge that I have read and understand the information and policy and detailed above: (1) Time Limits for processing and (2) Public Notice Distribution requirements and (3) the Right to Farm Disclosure.

AND

I acknowledge that I have reviewed the list of Identified Hazardous Waste and Substances Sites List and the Landfill Disclosure on the back of this form and find the following: (1) The site is ~~not~~ shown on the list of Identified Hazardous Waste and Substances Site; (2) The site is ~~not~~ shown on the list dated April 1998, or any later list published by the State Office of Planning and Research and (3) I have read the disclosure statement on landfill operations.

Jerry Stumbo / Stumbo
Signature

7/20/2012
Date

Print Name: *Jerry Stumbo, Santa Maria Refinery, Site Manager*

SAN LUIS OBISPO COUNTY
IDENTIFIED HAZARDOUS WASTE SITES – April, 1998

IMPACT CITY: ARROYO GRANDE
Site: Union Oil Co - Santa Maria refinery
Location: Willow Rd. north of Guadalupe
City: Arroyo Grande Zip: 93420
Source: DHS1

IMPACT CITY: CAMBRIA
Site: Hampton Hotel
Location: 2601 Main Street
City: Cambria Zip: 93428
Source: WRCB Problem: Tank Leak

Site: Cambria General Store
Location: 850 Main Street
City: Cambria Zip: 93428
Source: WRCB Problem: Tank Leak

Site: Chevron
Location: 2194 Main Street
City: Cambria Zip: 93428
Source: WRCB Problem: Tank Leak

IMPACT CITY: CAYUCOS
Site: Chevron
Location: 12 N. Ocean Boulevard
City: Cayucos Zip: 93430
Source: WRCB Problem: Tank Leak

Site: Bob's Corner Store
Location: 198 N. Ocean Boulevard
City: Cayucos Zip: 93430
Source: WRCB Problem: Tank Leak

IMPACT CITY: CHOLAME
Site: Hearst Corp.
Location: Highway 46
City: Cholame Zip: 93431
Source: WRCB Problem: Tank Leak

IMPACT CITY: LOS OSOS
Site: Los Osos Valley Garage
Location:1099 Los Osos Valley Road
City: Los Osos Zip: 93402
Source: WRCB Problem: Tank Leak

Site: Los Osos Landfill
Location: Turri Road
City: Los Osos Zip: 93402
Source: CIWMB
Problem:Groundwater Contamination

IMPACT CITY: LOS PADRES
Site: Ozena Station
Location: Highway 33 Zip: 93023
Source: WRCB Problem: Tank Leak

IMPACT CITY: OCEANO
Site: Bell Craig (from service station)
Location: 1899 Cienega
City: Oceano Zip: 93445
Source: WRCB Problem: Tank Leak

IMPACT CITY: PASO ROBLES
Site: Camp Roberts Site 936
Location: Highway 101
City: San Miguel Zip: 93451
Source: WRCB Problem: Tank Leak

Site: San Paso Truck & Auto
Location: Wellsona Road
City: Paso Robles Zip: 93446
Source: WRCB Problem: Tank Leak

IMPACT CITY: SAN LUIS OBISPO
Site: Unocal Tank Farm Facility
Location: 276 Tank Farm Road
City: San Luis Obispo Zip: 93401
Source: WRCB Problem: Tank Leak

Site: Hearn Trucking
Location: 4902 Edna Road
City: San Luis Obispo Zip: 93401
Source: WRCB Problem: Tank Leak

Site: Camp San Luis Obispo
Location:Highway 1 west of Highway 101
City: San Luis Obispo Zip: 93401
Source: WRCB Problem: Tank Leak

Site: SLO Golf & Country Club
Location: 255 Country Club
City: San Luis Obispo Zip: 93401
Source: WRCB Problem: Tank Leak

IMPACT CITY: SAN SIMEON
Site: Chevron
Location: 9540 Castillo Drive
City: San Simeon Zip: 93452
Source: WRCB Problem: Tank Leak

IMPACT CITY: SANTA MARGARITA
Site: Kaiser Sand & Gravel
Location: El Camino Real
City: Santa Margarita Zip: 93453
Source: WRCB Problem: Tank Leak

Site: Pacific Beverage
Location: 22255 El Camino Real
City: Santa Margarita Zip: 93453
Source: WRCB Problem: Tank Leak

IMPACT CITY: TEMPLETON
Site: Templeton Mobile
Location: 701 Las Tablas
City: Templeton Zip: 93465
Source: WRCB Problem: Tank Leak

LANDFILL OPERATIONS DISCLOSURE
EL POMAR/ESTRELLA PLANNING AREA

If your site is located within 1/2 mile of either the Paso Robles Municipal or the Chicago Grade Landfills (see maps on file with the Department of Planning and Building), this acts to notify you of your proximity to a landfill operation and all of the associated inconveniences and discomforts resulting from the continuing and future operation of such landfill, including possible expansions. Persons living near landfills may contact the California Integrated Waste Management Board (916) 341-6413 to seek available remedies concerning any improper or unlawful activities at the landfill.

LAND USE PERMIT APPLICATION FEES

San Luis Obispo County Department of Planning and Building **As of July 1, 2011**

HOW MUCH WILL IT COST TO PROCESS MY LAND USE PERMIT APPLICATION?

The following are ***estimated*** filing fees for land use permits that are set by the county fee ordinance each year. They are based on what it costs to process your application. Fees vary depending on the complexity of the permit. The following worksheet is a summary of possible estimated application fees.

❑ MINOR USE PERMIT		
Minor Use Permit, Major with Initial Study	❑	$7,576
Minor Use Permit, Major with Categorical Exemption (CE)	❑	$4,076
Minor Use Permit, Major with General Rule Exemption (GRE)	❑	$4,076
Minor Use Permit, Minor with Initial Study	❑	$4,542
Minor Use Permit, Minor with Categorical Exemption (CE)	❑	$2,899
Minor Use Permit, Minor with General Rule Exemption (GRE)	❑	$2,899
Public Works Review	❑	$605
CAL FIRE Review	❑	$399
Health Dept. Review	❑	$375
Ag Commissioner Referral	❑	$526
Airport Land Use Commission Review	❑	$1,203
Coastal Add-on for Minor Use Permits (All)	❑	$1,037
Geological Review (GSA designation) *(higher if major review required)*	❑	$2,671
Resource Conservation District Review *(plus Real Time Billing Agreement)*	❑	$275
Total		

❑ SITE PLAN		
Site Plan with Categorical Exemption (CE)	❑	$1,975
Site Plan with General Rule Exemption (GRE)	❑	$1,975
Site Plan with Initial Study	❑	$3,839
Coastal Add-on for Site Plans	❑	$456
CAL FIRE Review	❑	$399
Ag Commissioner Referral	❑	$520
Total		

❑ VARIANCE		
Variance with Categorical Exemption (CE)	❑	$3,463
Variance with General Rule Exemption (GRE)	❑	$3,463
Variance with Initial Study	❑	$8,731
Health Dept Review	❑	$375
Coastal Add-on for Variances	❑	$1,037
Total		

LAND USE PERMIT APPLICATION FEES

San Luis Obispo County Department of Planning and Building **As of July 1, 2011**

HOW MUCH WILL IT COST TO PROCESS MY LAND USE PERMIT APPLICATION?

The following are ***estimated*** filing fees for land use permits that are set by the county fee ordinance each year. They are based on what it costs to process your application. Fees vary depending on the complexity of the permit. The following worksheet is a summary of possible estimated application fees.

❑ DEVELOPMENT PLAN/CUP		
Development Plan/CUP; Categorical Exemption (CE)	❑	$6,732
Development Plan/CUP; General Rule Exemption (GRE)	❑	$6,732
Development Plan/CUP; Initial Study	❑	$11,914
Public Works Review	❑	$1,821
CAL FIRE Review *($399 for LUO mod or change in approved use)*	❑	$597
CAL FIRE Review for oil wells/mines (all projects will be cost accounted)	❑	$597
Health Dept. Review	❑	$575
Ag Commissioner Referral	❑	$753
Airport Land Use Commission Review	❑	$1,203
Coastal Add-on for Development Plan/CUP	❑	$1,037
Geological Review (GSA designation) *(higher if major review required)*	❑	$2,671
Resource Conservation District Review *(plus Real Time Billing Agreement)*	❑	$375
Total		

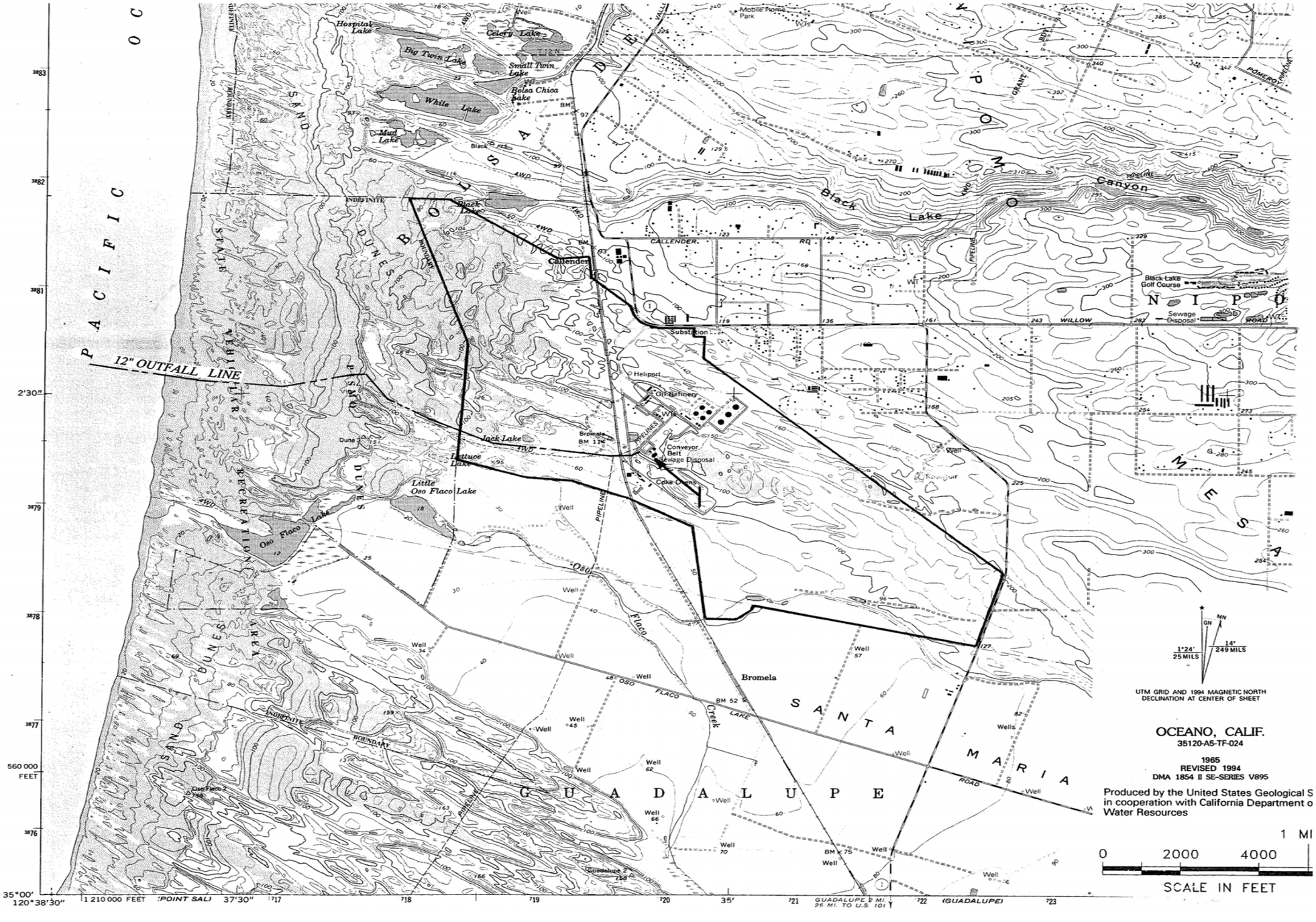


Figure 1. Phillips 66 Company Santa Maria Refinery Site Layout

Location	Volume (cu. yd.)
Area 1	5,760
Area 2	3,720
Area 3	180
Area 4	60
Area 5	90
Area 6	114
Area 7	84
Area 8	120
Area 9	36
Area 10	120
Area 11	36
Total	10,320

Surface Soil Sample
Geoprobe Boring
Hand Auger Boring
Blue: <TTLC & <10x STLC
Green: WET results < STLC
Yellow: WET results >= STLC
Red: >=TTLC
Orange: Not analyzed.

Approximate limits of metals impacted areas

N

0 50 100

APPROXIMATE SCALE IN FEET

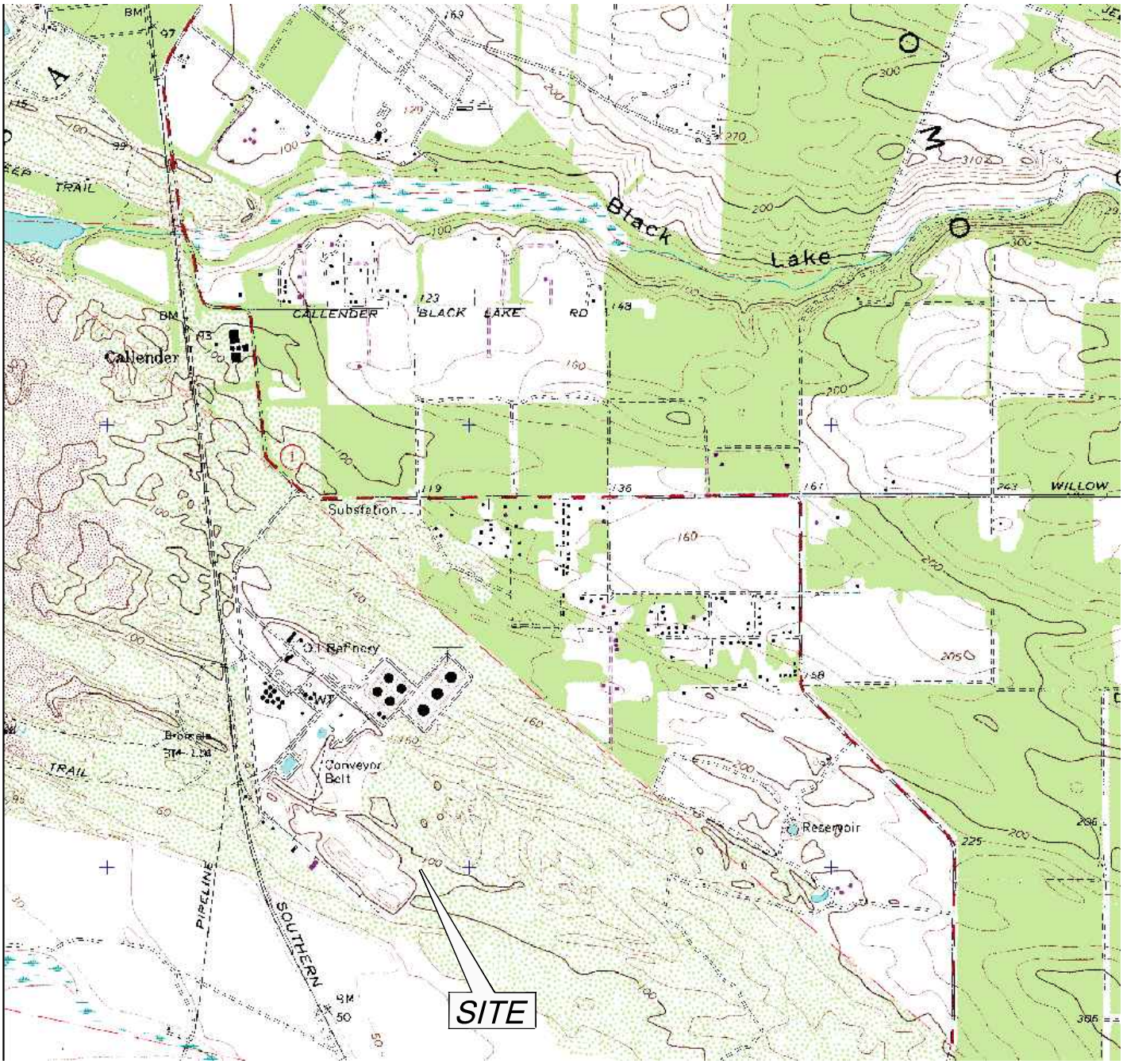
Stantec
3437 EMPRESA DR. SUITE A
SAN LUIS OBISPO, CALIFORNIA
PHONE: (805) 546-0455 FAX: (805) 546-0583

FOR: PHILLIPS 66
SANTA MARIA REFINERY
2555 WILLOW ROAD
ARROYO GRANDE, CALIFORNIA

EXCAVATION LOCATIONS AND VOLUME ESTIMATES

FIGURE: 2

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
211302394	SS	KH		May 31, 2012



N

(Approximate Scale in Feet)

0 2,000

No warranty is made by Stantec as to the accuracy, reliability, or completeness of these data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed electronically, and may be updated without notification. Any reproduction may result in a loss of scale and or information.

Stantec
3437 EMPRESA DR. SUITE A
SAN LUIS OBISPO, CALIFORNIA
PHONE: (805) 546-0455 FAX: (805) 546-0583

FOR: PHILLIPS 66
SANTA MARIA REFINERY
2555 WILLOW ROAD
ARROYO GRANDE, CALIFORNIA

VICINITY MAP

FIGURE: 3

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
211902203	SCS	KH	KH	05/29/12

FILEPATH:P:\Cad 2003\ConocoPhillips_SantaMaria_Refinery\VM.dwg|shsmith|May 31, 2012 at 13:49|Layout: A SIZE PORTRAIT

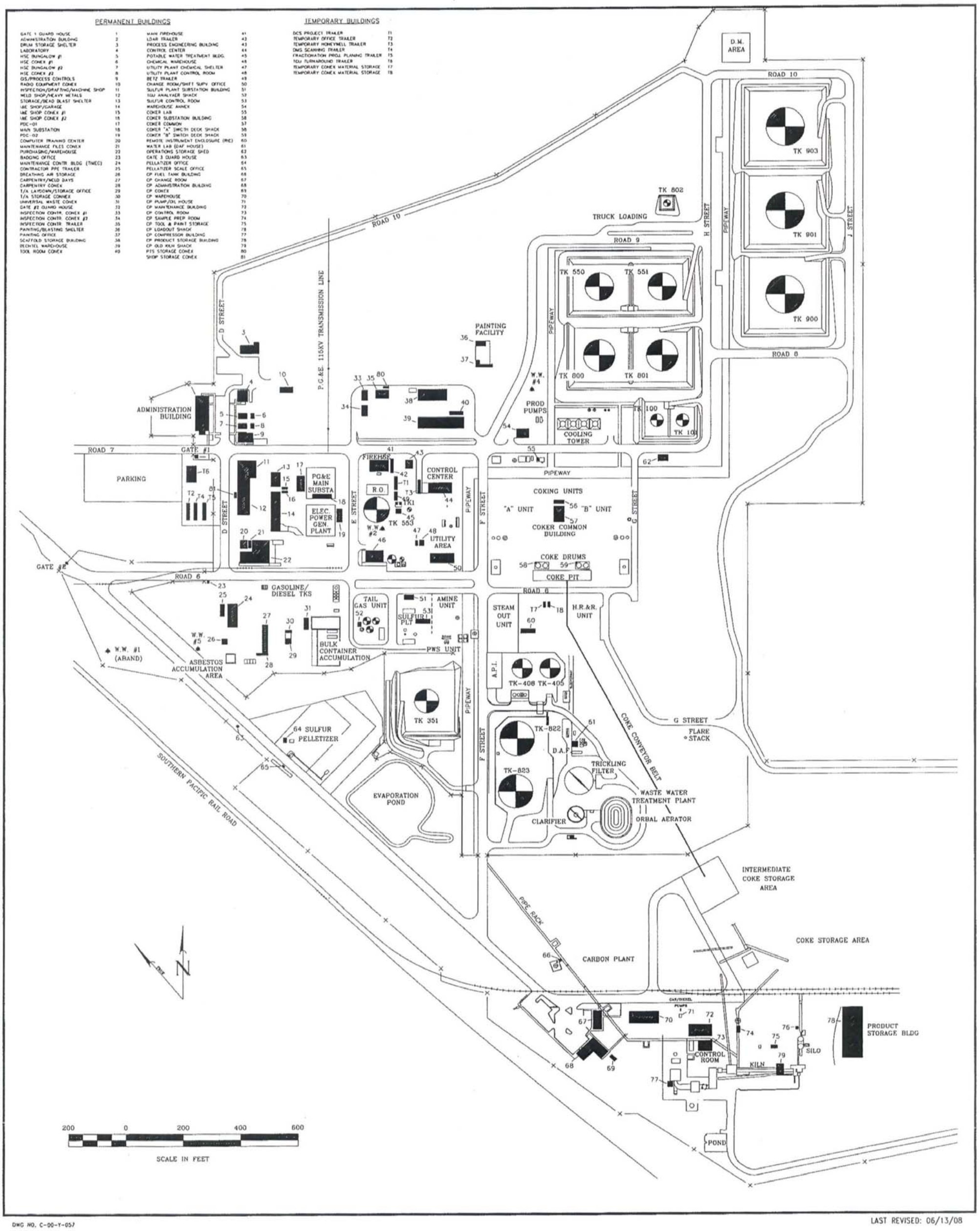
Figure 4

The Phillips 66 Co. Refinery is located on the southwestern portion of the Nipomo Mesa at an elevation of about 80 feet above mean sea level. The mesa is covered with drainage gullies and has a generally uneven, undulation surface. Both the north and south boundaries of the mesa are sharply set apart from the adjoining floodplains by 20 to 30 degree slopes. The refinery operation is located approximately 2.5 miles east of the Pacific Ocean.

The majority of the fenced portion of the Phillips 66 Co. property has been graded in the past when the refinery was constructed. No rock outcrops, bluffs, streams swales or other major landforms are present on or near the refinery.

This project will not result in any operational changes at the refinery. There will be no construction of any new facilities or structures.

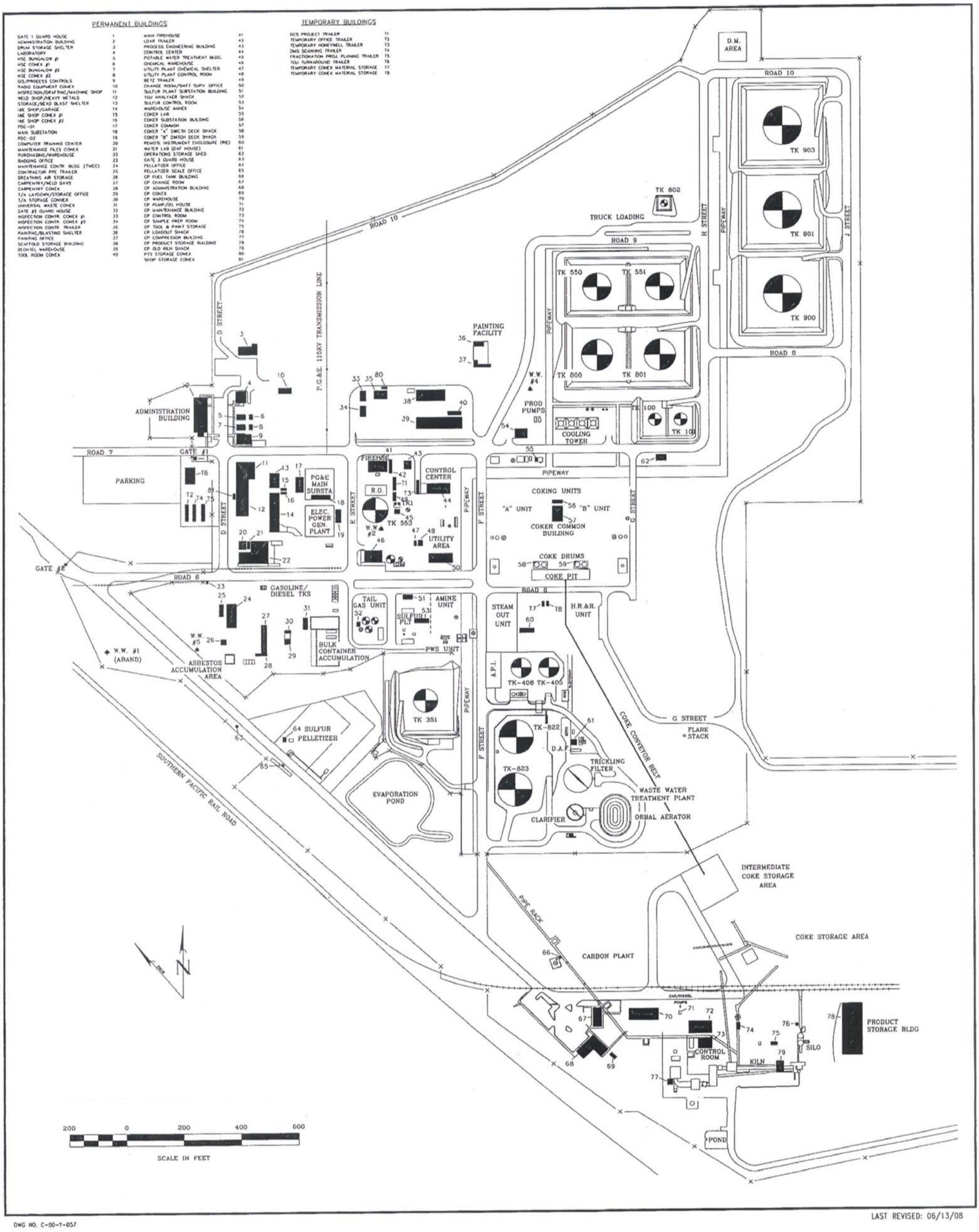
Fenced Refinery Area is within Red Lines



DWG NO. C-00-Y-057

LAST REVISED: 06/13/08

Figure 5



On-site asphalt pavement

Name	Width	Name	Width	Name	Width	Name	Width
Refinery Entrance Road	25 ft	Road 7	25 ft	Road 6	25 ft	G Street	25 ft
Carbon Plant Entrance	25 ft	Road 10	12 ft	D Street	25 ft	H Street	25 ft
E Street	25 ft	F Street	25 ft	Road 9	25 ft	Road 8	25 ft
Fence Line Road	12 ft	J Street	25 ft				

Figure 6

Figure 7

Water well location

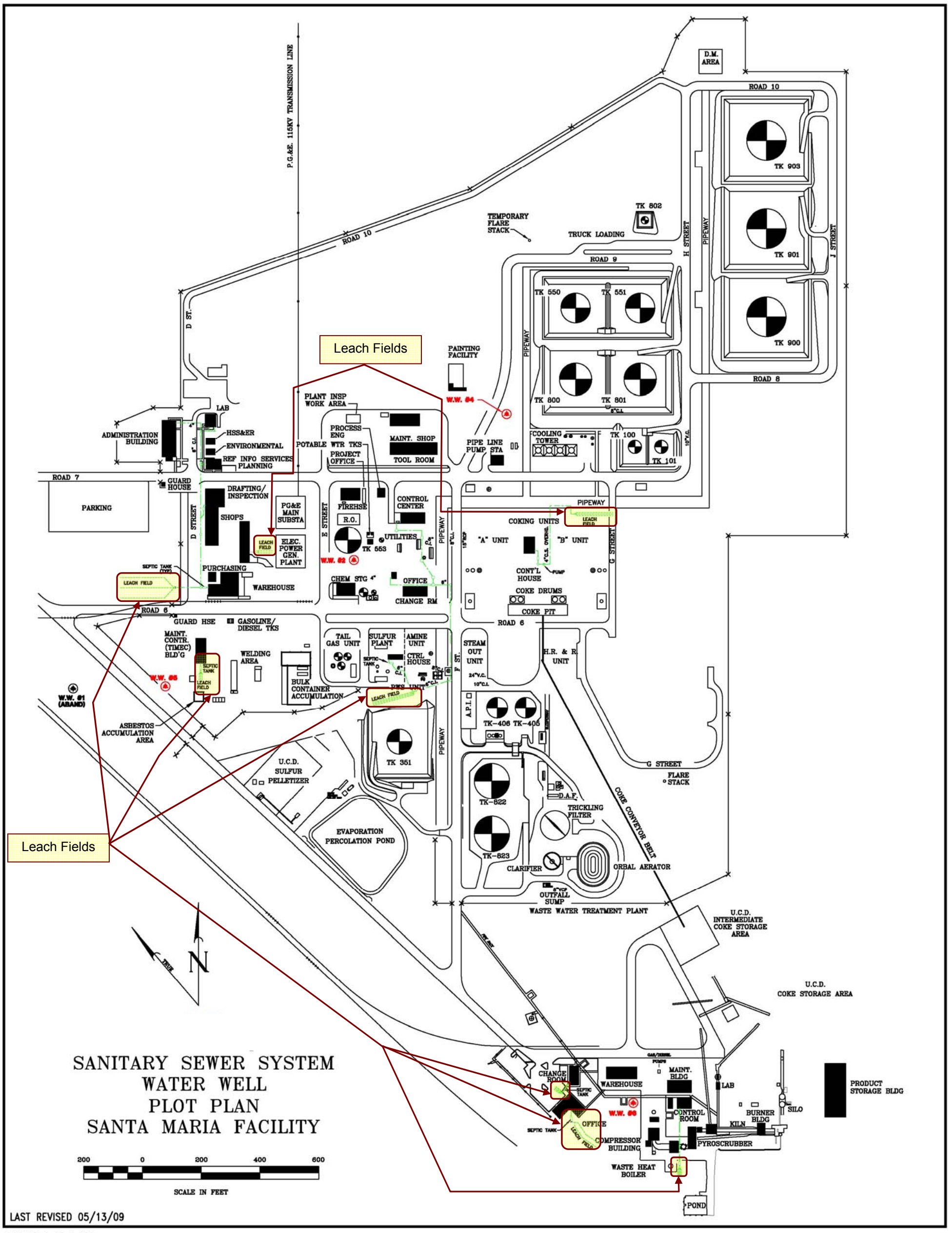
Water well location

Water well location

Water well location

The water supply for the refinery is provided by four wells located on site. The sewage water is managed with septic tank/leach field systems.

Fenced Refinery Area is within Red Lines



DWG NO. C-00-Y-074

Figure 8

Figure 9

Asphalt driveway to Facility Parking

Refinery parking lot. Dark area is asphalt approximately 82,000 ft^2. The light area is dirt/gravel and is approximately 250,000 ft^2.

Carbon Plant Parking lot approximately 10,000 ft_2 of asphalt.

Railroad right of way

Fenced Refinery Area is within Red Lines

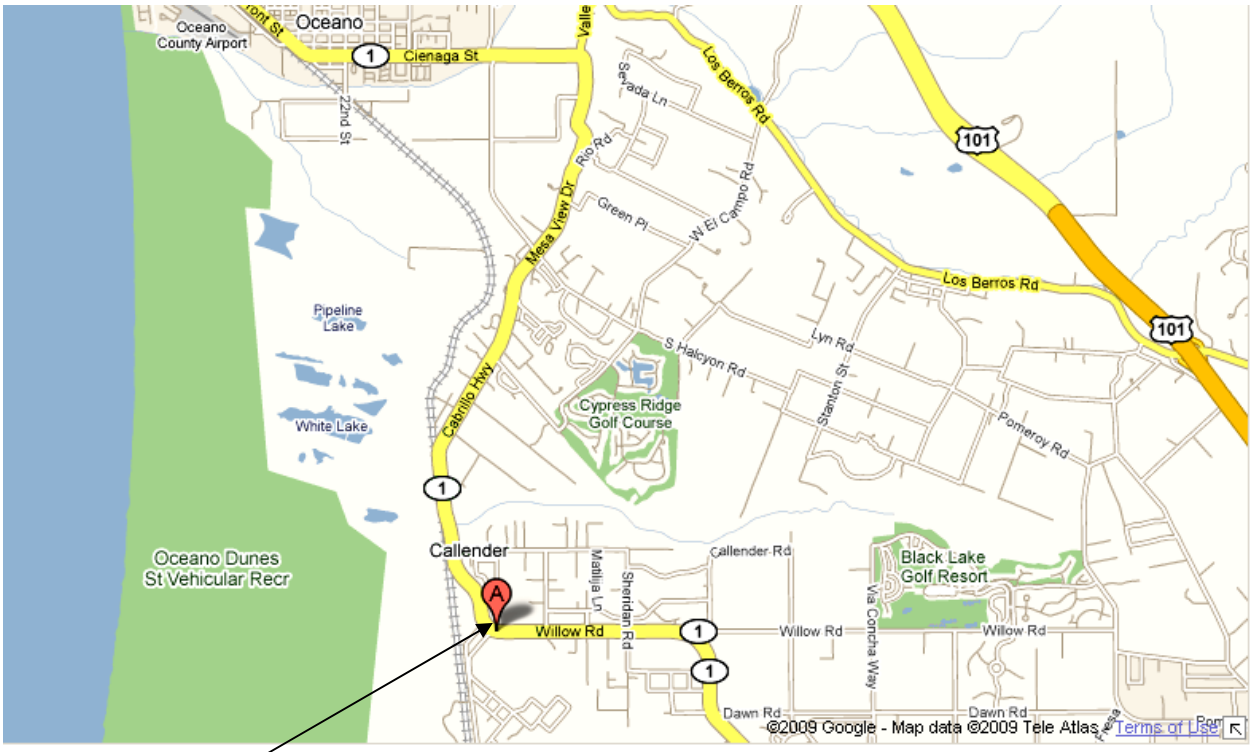
Figure 10

Fenced Refinery Area is within Red Lines

Figure 11

Fenced Refinery Area is within Red Lines

Figure 12



Phillips 66 Santa Maria Refinery
2555 Willow Road, Arroyo Grande, CA

Driving Directions from San Luis Obispo, South on Highway 101

Take exit **186** for **Fair Oaks Ave**	
Turn **right** at **Fair Oaks Ave** (signs for **Oceano/Guadalupe**)	0.3 mi
Turn **left** at **Valley Rd**	1.3 mi
Turn **left** at **CA-1/Mesa View Dr** Continue to follow CA-1	3.9 mi

Note: Per Google Maps, it is 21.6 miles from 976 Osos Street, San Luis Obispo to ConocoPhillips Santa Maria Refinery

Figure 13. Public coastal access points near the Santa Maria Refinery

Oceano Dunes State Vehicular Recreation Area
South Entrance
100 Pier Ave, Oceano, CA

6.52 Miles from Santa Maria Refinery

Oceano Dunes State Vehicular Recreation Area
Arroyo Grande Creek Trail Head
End of Strand Way, Oceano, CA

6.83 Miles from Santa Maria Refinery

Oceano Dunes State Vehicular Recreation Area
North Entrance
100 Grand Ave, Oceano, CA

7.33 Miles from Santa Maria Refinery

Oso Flaco
Oso Flaco Lake Road
Arroyo Grande, CA

3.9 Miles from Santa Maria Refinery

Attachment 1

CEQA ENVIRONMENTAL INFORMATION
Inactive Coke Storage Area
ConocoPhillips Santa Maria Refinery, Arroyo Grande, California

DTSC Docket HWCA 20113629 Consent Order

CALIFORNIA ENVIRONMENTAL QUALITY ACT
ENVIRONMENTAL INFORMATION FORM

The following information is requested pursuant California Code of Regulations, Title 14, Section 15063(e). This information will be used by the Department of Toxic Substances Control (DTSC) in conducting an Initial Study to determine if the proposed project may have a significant effect on the environment. The findings of the Initial Study will assist DTSC in determining whether an Environmental Impact Report, Negative Declaration or other environmental document should be prepared pursuant the California Environmental Quality Act (CEQA).[1]

Instructions:

Provide the information requested below and within each of the environmental resource categories (use additional sheets, if necessary). If the item is not applicable to the project, include a brief explanation as to why it would not be applicable. Include the name, title and page numbers for all reference documents used in support of the information provided. If an individual is used as a reference, please include name, title, employer, and date of the interview. Attach copies of all references.

PROJECT TITLE:
ConocoPhillips Santa Maria Facility Inactive Coke Storage Area Remediation Project

PROJECT ADDRESS: 2555 Willow Road	CITY: Arroyo Grande	COUNTY: San Luis Obispo
PROJECT SPONSOR: ConocoPhillips Company	CONTACT: Chris Swartz	PHONE: (510) 245-5133

PROJECT DESCRIPTION:
Removal of approximately 10,000 cubic yards of soil and debris mounds containing petroleum coke that are impacted with vanadium and nickel that is associated with brick and slag from a former calciner unit at the ConocoPhillips Santa Maria Facility. The soil and debris mounds will be removed with loaders and an excavator, loaded onto rail cars at the refinery, and transported to a waste receiving facility in Utah. The soil and debris mounds containing petroleum coke are not associated with the current refinery active coke storage operations.

[1] Pub. Resources Code, div. 13, § 21000 et seq

1. Aesthetics

Description of Baseline Environmental Conditions:

a. Describe the site's proximity to a scenic vista.

The San Luis Obispo County General Plan Conservation and Open Space Element, Visual Resources Chapter shows the locations of protected scenic resources, community separators spaces, and visual corridors within the County (SLO County, 2010). The project site is not located in close proximity to any designated scenic vista.

b. Describe the site's proximity to a state scenic highway that contains scenic resources, including, but not limited to, trees, rock outcroppings and historic buildings.

The project site is not located in close proximity to a state scenic highway. The nearest designated state scenic highway to the site is Highway 1 north of the City of San Luis Obispo. A segment of Highway 1 located north of the project site and a segment of Highway 101 to the west of the project site are eligible for designation as a state scenic highway but are not currently listed as state scenic highways. In addition, the project site is not located in close proximity to a designated County scenic highway (California Scenic Highway Mapping System, 2012).

c. Describe the existing visual character or quality of the site and its surroundings.

The site is located adjacent to the active coke storage area at the refinery. The site includes a mixture of irregularly placed soil and debris mounds containing petroleum coke that are surrounded by vegetated dune and chaparral habitat. To the north and east of the site are vegetated dune and chaparral habitat and grazing land. Agricultural fields are located to the south and southwest of the site. Dune habitat is located to the northwest of the site. The active coke storage area and associated structures are located immediately to the west of the site. The refinery and associated structures are located to the northwest of the site.

d. Describe existing sources of light at and in proximity to the site.

The only sources of light at or in proximity to the site are security lights that are installed along with security fencing along the perimeter of the refinery property boundary.

References Used:

San Luis Obispo County. 2010. General Plan, Conservation and Open Space Element, Chapter 9 – Visual Resources Chapter. Available online at: *http://www.slocounty.ca.gov/planning/General_Plan__Ordinances_and_Elements/Elements.htm*

California Scenic Highway Mapping System. 2012. available online at: http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm

2. Agricultural Resources

Description of Baseline Environmental Conditions:

a. Indicate if the site is located on or in proximity to Prime Farmland, Unique Farmland, or Farmland of Statewide Importance as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency.

The ConocoPhillips Santa Maria Facility is zoned as industrial, and is not located on prime farmland, unique farmland, or farmland of statewide importance. Surrounding areas are zoned for agricultural (southwest, west and east) and industrial use (north and southeast). There are lands designated as farmland of statewide importance to the north and east of the site. There are lands designated as prime farmland and prime farmland soils (Class I, II, and III) to the north and south of the site (San Luis Obispo County Prime Farmland Map, 2012)

b. Indicate if the site is located on or in proximity to land zoned for agriculture use, or under Williamson Act contract.

The site is not located on land zoned for agriculture or under Williamson Act contract. Lands near the site are zoned for agriculture. Some lands to the southwest, west and a small area to the east of the site are designated as lands under Williamson Act contracts. (San Luis Obispo County Williamson Act Map, 2012).

References Used:

San Luis Obispo County Prime Farmland and Williamson Act Maps. 2012. available online at: http://www.slocounty.ca.gov/planning/zoning/Map_Image_Download_Center/Natural_Resources_Maps.htm

3. Air Quality

Description of Baseline Environmental Conditions:

a. Identify the applicable air quality management district having jurisdiction over the air basin where the site is located.

The project site is located in the northern South Central Coast Air Basin with air quality under the jurisdiction of the San Luis Obispo County Air Pollution Control District (SLOAPCD). Project emissions associated with railway use for waste disposal will also occur in the southern South Central Coast, South Coast and Mojave Desert Air Basins under the jurisdiction of the Santa Barbara County Air Pollution Control District (SBCAPCD), Ventura County Air Pollution Control District (VCAPCD), South Coast Air Quality Management District (SCAQMD), and Mojave Desert Air Quality Management District (MDAQMD).

b. Identify the 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).

The following table lists the criteria pollutants for which the project region is non-attainment under federal and state ambient air quality standards.

Air Basin	Air District	Non-Attainment Designation
South Central Coast	*SLOAPCD*	*State: Ozone (moderate), PM10*
	SBAPCD	*State: Ozone (moderate), PM10*
	VCAPCD	*State: Ozone (severe), PM10, PM2.5* *Federal: Ozone*
South Coast	*SCAQMD*	*State: Ozone (extreme), PM10, PM2.5, nitrogen dioxide, lead* *Federal: PM10, PM2.5, ozone*
Southeast Desert Air Basin	*MDAQMD*	*State: Ozone (moderate), PM10, PM2.5* *Federal: PM10, ozone*

c. Describe all equipment or processes that would be stationary or mobile sources of air emissions or odors, provide an estimate of the amounts of emissions those activities would generate, indicate whether a permit from the applicable air quality management district would be required for such equipment or processes, and describe any thresholds where air emissions would be considered significant, and any mitigation measures that apply to the project that would reduce air emissions to less than significant levels.

The project is limited to excavating and removing soil and debris mounds containing petroleum coke and will only result in short-term construction emissions. The project does not include any component that will result in long-term operational, stationary source, or substantial odor emissions. Sources of project emissions are conventional construction equipment such as loaders, excavators, off-highway trucks, on-road vehicles, and locomotives used in support of waste disposal transport.

A summary of applicable thresholds of significance for each jurisdiction is provided below.

Air District	Air Pollutant	Threshold of Significance (Construction)
SLOAPCD	*Reactive Organic Gases + Nitrogen Oxides*	*137 pounds/day or 2.5 tons/quarter (Tier 1)*
	Diesel Particulate Matter	*7 pounds/day or 0.13 tons/quarter (Tier 1)*
	Fugitive Dust Particulate Matter	*2.5 tons*
SBCAPCD	*No applicable construction thresholds of significance*	
VCAPCD	*No applicable construction thresholds of significance*	
SCAQMD	*Nitrogen Oxides*	*100 pounds/day*
	Reactive Organic Gases/Volatile Organic Compounds	*75 pounds/day*
	PM10	*150 pounds/day*
	PM2.5	*55 pounds/day*
	Sulfur Oxides	*150 pounds/day*
	Carbon Monoxide	*550 pounds/day*
	Lead	*3 pounds/day*
MDAQMD	*Nitrogen Oxides, Volatile Organic Compounds, Sulfur Oxides*	*137 pounds/day or 25 tons/year*
	PM10, PM2.5	*82 pounds/day or 15 tons/year*
	Carbon Monoxide	*548 pounds/day or 100 tons/year*
	Hydrogen Sulfide	*54 pounds/day or 10 tons/year*
	Lead	*3 pounds/day or 0.6 tons/year*

Criteria air pollutant emissions that could result from project implementation have been estimated and are included in Appendix A. Project emissions have been separated into the five air jurisdictions as well as an out of state component encompassed by project activities. Following is a summary of estimated project criteria pollutant emissions.

Project Component	NOX (lbs/day)	ROG (lbs/day)	CO (lbs/day)	PM10 (lbs/day)	PM2.5 (lbs/day)	SOX (lbs/day)	NOX (tons)	ROG (tons)	CO (tons)	PM10 (tons)	PM2.5 (tons)	SOX (tons)	Threshold Exceeded
Emissions in SLOAPCD	37.42	3.42	28.41	6.01	2.01	0.34	1.37	0.14	1.23	0.26	0.08	0.00	No
Emissions in SBCAPCD	164.80	9.17	26.89	5.70	5.09	7.32	0.49	0.03	0.08	0.02	0.02	0.02	No
Emissions in VCAPCD	89.89	5.00	14.67	3.11	2.78	3.99	0.27	0.02	0.04	0.01	0.01	0.01	No
Emissions in SCAQMD	157.31	8.75	25.67	5.44	4.86	6.99	0.47	0.03	0.08	0.02	0.01	0.02	Yes (NOX)
Emissions in MDAQMD	239.70	13.33	39.11	8.30	7.41	10.65	0.72	0.04	0.12	0.02	0.02	0.03	Yes (NOX)
Emissions out-of-state	906.38	50.42	147.89	31.37	28.01	40.25	2.72	0.15	0.44	0.09	0.08	0.12	N/A

SLOAPCD representatives have requested that ConocoPhillips submit an application for an Authority to Construct for the project to review potential SLOAPCD project permit requirements.

Significance Analysis

SLOAPCD

Emissions in San Luis Obispo County do not exceed the mass significance criteria established by SLOAPCD and do not require mitigation. It should be noted that the PM10 totals expressed in the table above are a cumulative total of diesel particulate matter and fugitive dust particulate matter. Project activities are estimated to result in only 0.47 lbs/day and a total of 0.01 tons diesel particulate matter (below the applicable significance threshold). However, to comply with SLOAPCD's nuisance rule (Rule 402), ConocoPhillips will implement the following measures to reduce fugitive dust emissions:

a. *Reduce the amount of the disturbed area where possible;*
b. *Use water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. Increased watering frequency would be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water should be used whenever possible;*
c. *All soil and debris mound areas should be sprayed daily as needed;*
d. *All of these fugitive dust mitigation measures shall be shown on grading plans; and*
e. *The excavation contractor shall designate a person or persons to monitor the fugitive dust emissions and enhance the implementation of the measures as necessary to minimize dust complaints, reduce visible emissions below 20% opacity, and to prevent transport of dust offsite. Their duties shall include holidays and weekend periods when work may not be in progress.*

SBCAPCD & VCAPCD

As noted above, SBCAPCD and VCAPCD do not have established thresholds of significance for construction activities.

SCAQMD & MDAQMD

Locomotive emissions in SCAQMD and MDAQMD would exceed the daily mass significance criteria for NOX, but for no other criteria air pollutant with an established mass threshold of significance. Although the emissions will exceed the daily NOX thresholds, the total daily emissions shown in the table above would only occur during six days total over the duration of the project. In addition, project emissions occurring within SCAQMD and MDAQMD jurisdictions would occur from transporting waste via railway. The emissions would be mobile in nature and dispersed along the entire 1,045 mile-long rail route. Considering these emissions are mobile in nature and projected to occur during only six days, they are not expected to substantially contribute to an exceedance of an ambient air quality standard. Furthermore, the use of rail service for waste disposal eliminates substantial emissions that would otherwise occur from utilizing heavy duty trucks to transport waste to a receiving facility using the public roadway system.

Project emissions of criteria air pollutants have been conservatively estimated to provide a worst-case analysis of potential air quality impacts that could result from project implementation. For example, locomotive emissions were calculated assuming that 21 rail cars were transported from the ConocoPhillips SMF to the waste receiving facility in Utah with each locomotive trip (for a total of six trips). It is reasonable to assume that the number of rail cars transported to the waste receiving facility with each locomotive trip will actually be lower than 21, as a result of the COP reported locomotive schedule of dropping off and picking up rail cars at the SMF once a week. Under this scenario, only a portion of the locomotive load conveyed to the waste receiving facility during regularly scheduled transport events would be attributed to the project. This is

not expected to result in a change in total project emissions associated with rail transport over the life of the project (one quarter). However, it can reasonably be expected to increase the number of days during the course of the project that locomotive emissions occur within each air jurisdiction, but would actually decrease the estimated maximum daily emissions within each jurisdiction. This would have no change to estimated tons per quarter or tons per year. Consequently, estimated daily emissions listed above are overestimated and conservative in nature.

ConocoPhillips often uses a mobile piece of equipment to handle the staging of rail bins from the rail delivery/loading point and the SMF staging area. Use of this equipment is expected to be limited to handling 125 rail cars over the life of the project. Equipment-specific emissions form this activity have not been quantified within this analysis. However, the emissions associated with using two loaders for eight hours per day for 90 consecutive days has been quantified and included within this analysis. Actual loader use will likely be much lower than this conservative, worst-case assumption and is expected to account for any minor emissions from the rail car positioning equipment.

d. Indicate if the site is a source of Naturally Occurring Asbestos.

The site is not located in an area with known ultramafic or serpentine rocks that are the predominant source of naturally occurring asbestos (San Luis Obispo County, 2012 & Department of Conservation, 2000)

Appendix A – Air Emissions Calculations

References Used:

California Air Resources Board. 2012. Available online at:
http://www.arb.ca.gov/desig/adm/adm.htm

San Luis Obispo County Naturally Occurring Serpentine Rock map. 2012. available online at:
http://www.slocounty.ca.gov/planning/zoning/Map_Image_Download_Center/Natural_Resources_Maps.htm

Department of Conservation, Division of Mines and Geology. 2000. A General Guide for Ultramafic rocks in California – Areas Likely to Contain Naturally Occurring Asbestos.

4. Biological Resources

Description of Baseline Environmental Conditions:

Remediation of metals-impacted soil is planned for an area adjacent to the active coke storage area at the ConocoPhillips Santa Maria Facility. The subject remediation area consists of isolated locations (previously highly disturbed) that contain soil, brick and other construction debris within a larger area of soil mounds. The soil mounds range from approximately 3 to 15 feet in height relative to surrounding areas and consist primarily of dune sand with various amounts of vegetation, coke, and windblown coke particles.

The Department of Toxic Substances Control (DTSC) is the California Environmental Quality Act (CEQA) Lead Agency for the project and has requested information related to baseline environmental conditions at the site necessary to evaluate potential environmental impacts of the project pursuant with CEQA.

A reconnaissance-level biological assessment of the project area was completed on March 1, 2012. A report of the survey findings was prepared by Tenera Environmental and includes detailed information on the occurrences of plants and wildlife in the project area and vicinity. The following Responses to DTSC Data Requests are excerpted from that report, in addition to information on applicable policies, ordinances, and conservation plans from other sources.

a. Identify any 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 that may be present at or in close proximity to the site.

The following special status plants and animals are identified as having the potential to be present at or in close proximity to the site:

Plants: Dune ragwort (Senecio blochmaniae) was identified on the site by a single specimen. Dune ragwort is included on list 4.2 of the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants due to its limited distribution.

Due to the disturbed condition of the site, the presence of other sensitive plant species is considered unlikely. There is, however, the moderate potential for occurrence in central dune scrub habitat in close proximity to the site for the following listed species: coastal goosefoot (Chenopodium littoreum), dune larkspur (Delphinium parryi ssp. blochmaniae), Blochman's leafy daisy (Erigeron blochmaniae), dune wallflower (Erysimum insulare spp. suffrutescens), Kellogg's horkelia (Horkelia cuneata ssp. sericea), dunedelion (Malacothrix incana), crisp monardella (Monardella crispa), San Luis Obispo monardella (Monardella frutescens), pholisma (Pholisma arenarium), and dune ragwort.

Wildlife: There is moderate potential for occurrence in close proximity to the site for the following listed species: American badger (Taxidea taxus), Allen's hummingbird (Selasphorus sasin), burrowing owl (Athene cunicularia), California horned lark (Eremophila alpestris actia), coast horned lizard (Phrynosoma blainvillii), silvery legless lizard (Anniella pulchra pulchra), Morro blue butterfly (Plebejus icarioides moroensis), and Oso Flaco flightless moth (Areniscythris brachypteris).

b. Identify any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service that may be present at or in close proximity to the site.

Central dune scrub habitat is present on the site perimeter and the surrounding area. This habitat is defined in the California Natural Diversity Database (CNDDB) as a sensitive natural community with a global rank of G2 and a state ranking of S2.2. A state rank of S2.2 indicates a restricted geographical range, and although central dune scrub has no legal protection it is considered a sensitive and uncommon community.

There is no riparian habitat at, or in close proximity, to the site.

c. Identify any federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) that may be present at or in close proximity to the site.

No federally protected wetland habitats were observed on the site or in the site vicinity. Oso Flaco Creek and Little Oso Flaco Creek are located 0.6 miles (south) of the site.

d. Identify any native resident, migratory fish, wildlife species, nursery sites or corridors that may be present at or in close proximity to the site.

Based on observations during the reconnaissance survey on March 1, 2012, and the extent of habitats and land use surrounding the project site, there are no known native resident, migratory fish, or wildlife species nursery sites or corridors present or in close proximity to the site.

e. Identify any local policies or ordinances, such as a tree preservation policy, protecting biological resources that may be present at or in close proximity to the site.

San Luis Obispo County policies and ordinances for the Coastal Zone relating to tree preservation are specified in Title 23 of the San Luis Obispo County Code at Section 23.05.060. The ordinance states:

"The purpose of these standards is to protect existing trees and other coastal vegetation from indiscriminate or unnecessary removal consistent with Local Coastal Plan policies and pursuant to Section 30251 of the Coastal Act which requires protection of scenic and visual qualities of coastal areas. Tree removal means the destruction or displacement of a tree by cutting, bulldozing, or other mechanical or chemical methods, which results in physical transportation of the tree from its site and/or death of the tree."

The ordinance specifies that no tree over 8" in diameter at 4' from the ground may be removed or killed unless a permit is first issued. No trees meeting these criteria are present at the project site.

San Luis Obispo County policies and ordinances for the Coastal Zone relating to grading permit requirements are specified in Title 23 of the San Luis Obispo County Code at Section 23.05.025.

Where Section 23.05.025 requires a grading permit and the grading will move less than 5,000 cubic yards; is located on slopes less than 30%; and is not located within a Geologic Study Area or Flood Hazard combining designation, the application for a grading permit is to include information relating to proximity to any wetlands, coastal stream or riparian vegetation, and intended means of revegetation, including the location, species, container size and quantity of plant materials proposed, and the proposed time of planting, among other requirements.

Where Section 23.05.026 (Grading Permit Exemptions) requires a grading permit, and the grading will move 5,000 cubic yards or more, is located on slopes of 30% or greater, or is located within a Geologic Study Area, Flood Hazard area or within 100 feet of any Environmentally Sensitive Habitat, the grading plan is to be prepared and certified by a registered civil engineer, and is to include specifications covering construction and material requirements in addition to the information required for minor grading.

f. Identify any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan that may be applicable to biological resources present at or in close proximity to the site.

The project site is within the California Coastal Zone administered by the California Coastal Commission and San Luis Obispo County and subject to the conditions specified the County's approved Local Coastal Program. The site is located within the South County- Coastal Planning Area. It is also within the Nipomo Mesa Water Conservation Area. Although not considered to be in close proximity to the site, two HCPs are being prepared for the general region: 1) the Lopez Lake-Arroyo Grande Creek HCP and 2) the San Luis Obispo Coast District & Oceano Dunes SVRA Preliminary Draft Habitat Conservation Plan. Both appear to still be in progress and have not yet been adopted.

Appendix B – Biological Resources Study Report

References Used:

Bolster, B. C. (ed). 1998. Terrestrial Mammal Species of Special Concern in California. Draft Final Report prepared by P. V. Brylski, P. W. Collins, E. D. Pierson, W. E. Rainey and T. E. Kucera. Report submitted to California Department of Fish and Game Wildlife Management Division, Nongame Bird and Mammal Conservation Program for Contract No.FG3146WM.

California Department of Fish and Game (CDFG). 2012a. California Natural Diversity Database RareFind 3.1.1. 2003. California Department of Fish and Game. Database revision March 2012.

California Department of Fish and Game (CDFG). 2012b. California Natural Diversity Database. California Department of Fish and Game. Special Vascular Plants, Bryophytes, and Lichens List. January 2012. 71 p.

California Native Plant Society (CNPS). 2012. Inventory of Rare and Endangered Plants (online edition, v8-01a). California Native Plant Society. Sacramento, CA. Accessed on Wednesday, March 21, 2012 from http://www.cnps.org/inventory.

County of San Luis Obispo. 2011. Coastal Zone Land Use Ordinance, Title 23 of the San Luis Obispo County Code. Revised November 2011.

Hickman, J. C. 1993. The Jepson Manual: Higher Plants of California. Berkeley, CA. UC Press 1400 p.

Holland, V. L. and D. J. Keil. 1995. California Vegetation. California Polytechnic State University, San Luis Obispo, CA. 516 p.

Holland, R. F. 1986. Preliminary descriptions of the terrestrial natural communities of California. State of California, The Resources Agency, Nongame Heritage Program, Dept. Fish & Game, Sacramento, CA. 156 p.

Marine Research Specialists (MRS). 2011. ConocoPhillips Santa Maria Refinery Throughput Increase Project, Public Draft Environmental Impact Report. Prepared for San Luis Obispo County Air Pollution and Control District & San Luis Obispo County Department of Planning and Building. SCH #20081010111, August 2011.

Shuford, W. D. and T. Gardali (eds). 2008. California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California, and California Department of Fish and Game, Sacramento.

United States Fish and Wildlife Service (USFWS). 2008. Birds of Conservation Concern. United States Department of Interior, Fish and Wildlife Service, Division of Migratory Bird Management, Arlington, Virginia. 85 p. http://www.fws.gov/migratorybirds.

5. Cultural Resources

Description of Baseline Environmental Conditions:

a. Identify any historical resources, as defined in section15064.5 of Title 14 of the California Code of Regulations (CEQA Guidelines or Guidelines) that may be present at or in close proximity to the site.

Stantec conducted a records search through the Central Coast Information Center at the Department of Anthropology, University of California in Santa Barbara on February 10, 2012 for the project site and a one half-mile buffer area. The records search included the databases for the State Historic Property Data Files, National Register of Historic Places, National Register of Determined Eligible Properties, California Historical Landmarks, California Points of Historic Interest, California OHP Archaeological Determinations of Eligibility, and the Caltrans State and Local Bridge Surveys. No such properties near the project site or within the one half-mile buffer were discovered in these databases.

b. Identify any archeological resources, pursuant to section 15064.5 of the Guidelines that may be present at or in close proximity to the site.

Stantec conducted a records search through the Central Coast Information Center at the Department of Anthropology, University of California in Santa Barbara on February 10, 2012 for the project site and a one half-mile buffer area. The search indicated two recorded archaeological sites within the one half-mile buffer surrounding the project area. A total of 12 previous archaeological surveys have been conducted in or overlapping the buffer area. The project site is not located near an archaeological sensitive site as depicted in the County's Coastal Zone Environmentally Sensitive Habitat Map (San Luis Obispo County Coastal Zone Environmentally Sensitive Habitat Map, 2012).

c. Identify any unique paleontological resources or unique geologic features that may be present at or in close proximity to the site.

There are no known paleontological resources or unique geologic features that may be present at or in close proximity to the site that could be impacted by project activities.

d. Identify any human remains, including those interred outside of formal cemeteries that may be present at or in close proximity to the site.

The project site is not located near an archaeological sensitive site as depicted in the County's Coastal Zone Environmentally Sensitive Habitat Map (San Luis Obispo County Coastal Zone Environmentally Sensitive Habitat Map, 2012). As the project involves excavation of previously disturbed/stockpiled materials, encountering human remains as a result of project implementation is not expected.

e. Provide the results of any California Historical Resources Information System (CHRIS) inventory search conducted by the appropriate Office of Historic Preservation (OHP) Information Center.

The results of the Central Coast Information Center at the Department of Anthropology, University of California in Santa Barbara records search are under confidential Appendix C and are available upon request of authorized agents.

f. Provide the results of any Registry of Sacred Sites search conducted by the Native American Heritage Commission (NAHC) and summary of any follow-up contacts with tribal representatives.

Due to the nature of the proposed project, no searches of the Registry of Sacred Sites or tribal consultations were conducted.

Appendix C – Cultural Resources Records (Confidential Information Available Upon Request of Authorized Agents)

References Used:

San Luis Obispo County Coastal Zone Environmentally Sensitive Habitat Map. 2012. available online at: http://www.slocounty.ca.gov/planning/zoning/Map_Image_Download_Center/Natural_Resources_Maps.htm

6. Geology and Soils

Description of Baseline Environmental Conditions:

The project is located on the Nipomo Mesa within the Southern Coast Ranges Geomorphic Province of California. The Southern Coast Ranges are characterized by northwest to southeast trending mountain ranges and valleys, which are separated by faults (Norris & Webb, 1990). The Nipomo Mesa triangular lobe is an elevated feature consisting of ancient sand dunes that are vegetated primarily with chaparral, oak trees, and eucalyptus trees. The Nipomo Mesa is more than four miles wide and extends inland more than 12 miles to east of Highway 101.

The dune sands directly underlying the project site consist of fine- to coarse-grained, well rounded, massive sand with some silt and clay. The sands are largely composed of quartz and are loosely to slightly compacted. The older dune sands are anchored by vegetation and have a well-developed soil mantle. The older dunes have a maximum thickness of approximately 300 feet near the southern edge of Nipomo Mesa (DWR, 2002). Lithologs from monitoring wells and production wells at the refinery confirm sand lithologies with minor thin clay lenses extending to 100 feet or more.

The dune sand deposits are underlain by the Pliocene-Pleistocene Paso Robles Formation which is the major water producing formation in the vicinity of the project site. Typical thickness of the formation in the vicinity of the project site is between 500 and 600 feet. The formation is described as typically consisting of unconsolidated to poorly consolidated to sometimes cemented beds or lenses of coarse- to fine-grained gravel and clay, sand and clay, shale gravel, silt, clay, silty clay, and sandy clay, with some lenses of gravel and sand (DWR, 2002).

a. Describe the sites location relative to nearby areas of known earthquake faults, 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. (Refer to Division of Mines and Geology Special Publication 42).

There are no active faults that traverse the project area and the site is not located in an Alquist-Priolo Earthquake Fault Zone (Bryant & Hart, 2007). Faults within the study area generally strike west-northwest and often intersect the coast at acute angles, extending offshore. Nearby potentially active faults include the Oceano Fault, located approximately 2.0 miles northeast from the project, and the Santa Maria River Fault, located approximately 2.5 miles northeast from the project. Both faults are northwest trending (DWR, 2002).

The location of the Santa Maria River Fault is not well defined and its existence was proposed to explain: 1) the southward truncation of a thick section of early Miocene volcanic siltstone and claystone, 2) the northward truncation of late Miocene and early Pliocene diatomaceous

mudstone and siltstone associated with the Santa Maria Basin, 3) an up-to-the-northeast vertical offset of Franciscan bedrock and 4) other stratigraphic contrasts evident from subsurface data. The youngest fault activity along this fault may have occurred as recently as late Quaternary (DWR, 2002).

The Oceano fault underlies the central portion of Nipomo Mesa and extends offshore south of Oceano. Within the onshore segment, the fault is not geomorphically expressed because of the relatively thick alluvial and eolian cover. A southeasterly decrease in vertical separation suggests that the fault probably dies out in the northern Santa Maria Valley near the Santa Maria River (DWR, 2002).

b. Describe the sites location relative to nearby geologic units or soils that are unstable, or that might become unstable as a result of the project.

Steep bluffs of the Nipomo Mesa are located approximately 2.5 miles northwest and 2.5 miles southeast from the project site. The project site is located in the southwest portion of the Nipomo Mesa where the topography is at lower elevations relative to the rest of the mesa. The topography is gently sloping and is identified as having a low potential for landslides (SLO County, 2005).

The areas of San Luis Obispo County most susceptible to the effects of liquefaction are those areas underlain by young, poorly consolidated, saturated granular alluvial sediments. These soil conditions are most frequently found in areas underlain by recent river and flood plain deposits. The project site is underlain by thick, unsaturated dune sands that are identified as having a low potential for liquefaction (SLO County, 2005). The unsaturated zone extends to first encountered groundwater at the project site that is located at approximately 45 to 48 feet mean sea level.

c. Indicate if the site is located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994).

Expansive soils are generally clay-rich soils that swell when saturated and shrink when dry. As previously stated, the project site is underlain by thick, unsaturated dune sands that are not prone to expansion.

d. If waste water will be disposed and sewers are not available, indicate if the site is located on soils that are capable of adequately supporting the use of septic tanks or alternative waste water disposal systems.

Waste water that is expected to be generated during project activities includes water used for dust control and water used for decontamination of tools and equipment. Water used for dust control will not be generated in sufficient quantity to cause overflow. For decontamination activities, a temporary containment will be constructed and the waste water will be pumped from the containment and handled and disposed in accordance with state and federal laws.

e. Provide a contour site map.

Appendix D – Contour Site Map

References Used:

Bryant & Hart. 2007. Fault-Rupture Hazard Zones in California. California Geological Survey.

DWR. 2002. Water Resources of the Arroyo Grande-Nipomo Mesa Area. Department of Water Resources, Southern District
Norris & Webb. (1990). Geology of California. Wiley.

County of San Luis Obispo 2005. San Luis Obispo County Local Hazard Mitigation Plan.

7. Greenhouse Gas Emissions

Description of Baseline Environmental Conditions:

a. Describe all equipment or processes that would be stationary or mobile sources of greenhouse gas (GHG) emissions *(carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride)*, and provide an estimate of the amounts of GHG emissions those activities would generate.

The project does not include any stationary sources of greenhouse gas emissions. The project does involve the operation of mobile equipment including loaders, excavators, off-highway trucks, on-road vehicles, and locomotives. Greenhouse gas emissions associated with operation of this equipment have been estimated and are summarized below. Detailed calculations and assumptions are included in Appendix A. Greenhouse gas emissions were estimated using the equivalent of carbon dioxide emissions (CO2e) and calculated using the USEPA's Greenhouse Gas Equivalencies Calculator (USEPA, May 2011).

Project Component	Metric Tons CO_2e
Emissions in SLOAPCD	*481.88*
Emissions in SBCAPCD	*27.69*
Emissions in VCAPCD	*15.07*
Emissions in SCAQMD	*26.46*
Emissions in MDAQMD	*40.32*
Emissions out-of-state	*151.87*
Total Project CO_2e Emissions:	***743.28***

b. Identify the local or regional plan, policy or regulation that was adopted for the purpose of reducing the emissions of greenhouse gases, and describe any thresholds where GHG emission would be considered significant, and any mitigation measures that apply to the project that would reduce GHG emissions to less than significant levels.

The San Luis Obispo County Air Pollution Control District (SLOAPCD) has developed draft Greenhouse Gas (GHG) thresholds to help assist lead agencies in the review, quantification and mitigation of GHG emissions for proposed land use projects. The proposed GHG thresholds for SLO County provide guidance for lead agencies to implement new development in a manner that will help our region provide its share of the GHG reductions outlined in Assembly Bill 32 (California Global Warming Solutions Act of 2006). Based on the SLOAPCD draft GHG thresholds, the project would have a less than significant GHG impact if it complied with a qualified GHG reduction strategy or resulted in less than 1,150 metric tons of carbon dioxide equivalent (CO2e) emissions (SLOAPCD, 2012). In the absence of adopted thresholds of significance for greenhouse gases SLOAPCD currently recommends lead agencies quantify GHG emissions from new development and apply all feasible mitigation measures to lessen potentially significant adverse impacts.

SBCAPCD has proposed and SCAQMD has adopted an interim GHG significance threshold for stationary sources of 10,000 metric tons CO2e per year. VCAPCD and MDAQMD do not have established GHG significance thresholds.

As shown in the above table, the project will not result in GHG emissions that would exceed any established significance criteria. The project will not conflict with a local or regional plan, policy or regulation that was adopted for the purpose of reducing the emissions of greenhouse gases. No mitigation measures to reduce GHG emissions are therefore required.

References Used:

SLOAPCD. 2012. available online at: http://www.slocleanair.org/

USEPA's Greenhouse Gas Equivalencies Calculator, May 2011

8. Hazards and Hazardous Materials

Description of Baseline Environmental Conditions:

Removal of approximately 10,000 cubic yards of soil and debris mounds that are impacted with vanadium and nickel that is associated with brick and slag from a former calciner unit at the ConocoPhillips Santa Maria Facility. The soil and debris mounds will be removed with loaders and an excavator, loaded onto rail cars at the refinery, and transported to a waste receiving facility in Utah. The soil and debris mounds containing petroleum coke are not associated with the current refinery active coke storage operations.

a. Describe those aspects of the proposed project that may involve the transport, use or disposal of hazardous materials.

During soil and debris removal activities, products such as fuels and oils will be used for equipment maintenance. These products will be properly managed using best management practices and will be in compliance with applicable regulations.

It is anticipated that impacted soil and debris mounds will be directly loaded onto rail cars without intermediate stockpiling. Once loaded, the rail cars will be covered with industrial plastic sheeting to prevent material spillage during transport to the receiving facility. The plastic sheeting is secured to the rail cars by heat shrinking (Stantec 2010).

b. Summarize the conclusions of any studies that examined any hazards to the public or the environment through reasonably foreseeable upset and accident conditions at the site that involved the release of hazardous materials into the environment.

No studies that examined any hazards to the public or environment have been completed. Potential upsets associated with hazardous materials and hazardous waste could include the accidental release of contaminated site materials during the removal, management, or transport of these materials; the accidental release of construction-related hazardous materials such as fuel, oil or maintenance chemicals; or release of airborne pollutants during site remediation activities.

The proposed environmental remediation includes the removal, management, and transportation of up to 10,000 cubic yards of materials containing hazardous constituents (concentrations of vanadium and nickel in soils). However, due to the nature of the hazardous constituents, short-term exposure to these materials does not pose a risk to human health. These management activities will be completed within less than one year. In addition, the probability that remediation materials escape to the environment during transportation is minimized through the implementation of the transportation plan (Stantec 2010).

Other measures that will be implemented to reduce potential impacts include:
Preparation and implementation of a Stormwater Pollution Prevention Plan to address potential spills or releases of hazardous materials;
Preparation and implementation of a Health and Safety Plan including requirements for workers, and other construction management components such as dust and offsite migration control; and,
A requirement that all construction activities be undertaken in accordance with California Occupational Safety and Health Administration (Cal-OSHA) standards.

c. Describe those aspects of the project that may emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school or other sensitive receptors.

No existing or proposed school or other sensitive receptors are within one-quarter mile of the project site. Sensitive receptors are located throughout the proposed rail route; however, the hazardous materials contained in the impacted soils are solid metals and are therefore not volatile.

d. Indicate if the site is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

The project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (DTSC 2012).

e. Identify and describe the conditions of any adopted emergency response plan or emergency evacuation plan that would be required during proposed project implementation.

The project does not have the potential to impair or interfere with an adopted Emergency Response Plan or Emergency Evacuation Plan primarily because the impacted soils will be transported by rail from the project site directly to the landfill in Utah.

References Used:

DTSC. 2012. Available online at http://www.envirostor.dtsc.ca.gov
Stantec. 2010. Remedial Action Plan for Area Adjacent to Coke Processing Area
Other references: (www.calfireslo.org), (www.lmusd.org), (www.lmusd.org), (www.slocountyparks.com), (www.slolibrary.org) and (www.slopublichealth.org)

9. Hydrology and Water Quality

Description of Baseline Environmental Conditions:

Surface Water

The nearest surface water bodies in the vicinity of the project site includes Oso Flaco Creek located approximately 0.6 miles to the southwest, Little Oso Flaco Lake and Oso Flaco Lake located approximately 1.2 and 1.7 miles west of the project site, respectively. Two lakes (Jack Lake and Lettuce Lake located approximately one mile northwest) that are depicted on the USGS topographic map (Oceano quadrangle), are shown to be intermittent.

Hydrogeology and Groundwater

The ConocoPhillips Santa Maria Facility is located within the Santa Maria Groundwater Basin (SMGB). Most of the SMGB is within the Santa Maria River Watershed, which extends eastward into the coastal range region and covers more than 453,000 acres. The basin is bound on the north by the San Luis and Santa Lucia Ranges, on the east by the San Rafael Mountains, on the south by the Solomon Hills and the Casmalia Hills, and on the west by the Pacific Ocean. The Santa Maria Valley is drained by the Sisquoc, Cuyama and Santa Maria Rivers, and Orcutt Creek. Annual precipitation ranges from 13 to 17 inches with an average annual precipitation of 15 inches per year (Marine Research Specialists, 2011) .

The aquifer system in the basin consists of unconsolidated Plio-Pleistocene alluvial deposits including gravel, sand, silt, and clay that range in thickness from 200 to nearly 3,000 feet. The underlying consolidated rocks typically yield relatively insignificant quantities of water of poor quality in the local wells. Franciscan and Knoxville Formation of Jurassic and Cretaceous age, basement complex unconformably underlie the

Tertiary and Quaternary deposits. The unconsolidated alluvial deposits in the SMGB comprising the aquifer system include the Careaga Sand, the Paso Robles Formation, the Orcutt Formation, the Quarternary Alluvium, and river channel deposits, sediments, terrace deposits, and wind-blown due sands at or near the surface (DWR 2002).

Two groundwater zones exist beneath the site. The first groundwater zone exists in unconfined conditions at elevations ranging from approximately 40 to 50 feet mean sea level (msl). This groundwater occurs within an approximately 100-foot thick zone of stationary dune sands. The dune sands are underlain by the approximately 1,000-foot thick Paso Robles Formation which is the second groundwater zone and is the major water producing formation in the site's vicinity. Six water producing zones exist within the Paso Robles formation ranging in depth from 250 to 800 feet below ground surface (bsg). These water producing zones are composed of sand and gravel layers separated by fine sand, silt, and clay layers. The Paso Robles Formation is underlain by the Pismo Formation sandstones, which marks the base of "fresh" water bearing unconsolidated sediments in the site area (Groundwater Technology, 1992) .

Groundwater quality varies significantly across the basin. Total Dissolved Solids (TDS) in the groundwater generally increases from east to west. In the vicinity of the Santa Maria Valley, the basin is classified as vulnerable to nitrate contamination, and in places concentrations of nitrate have increased from less than 30 mg/l in the 1950s to more than 100 mg/l in the 1990s. The Careaga Sand, the basal member of the system of alluvial sand, is generally considered to have poor water quality. In general, high TDS, sulfate, or chloride content impairs groundwater in some parts of the basin (DWR, 2002, Marine Research Specialists, 2011).

The depths to groundwater measurements obtained in August 2011 indicate a westward groundwater flow direction at an average gradient of 0.003 ft/ft and an average flow velocity of 0.12 feet per day. The groundwater flow direction and average gradient have remained consistent since groundwater monitoring commenced at the refinery in 1994 (Stantec, 2011).

a. Identify and describe any water quality standards or waste discharge requirements that may apply to the proposed project. If applicable, include the name of the applicable Regional Water Quality Control Board responsible for project oversight.

No waste will be discharged during project activities; therefore, no waste discharge requirements apply to the proposed project.

b. Indicate if the site is located over a known groundwater aquifer, and describe those aspects of the project that may require the extraction or recharge of groundwater.

As described above, groundwater is encountered at about 40 to 50 msl at the site. However, extraction or recharge of groundwater will not be required as part of project activities.

c. Describe any site drainage features, including streams or rivers, and the capacity of existing or planned storm water drainage.

The local topography at the project site slopes gently toward the south/southwest. No streams or rivers are located in the immediate vicinity of the project site; the nearest surface water body downslope from the project site is Oso Flaco Creek located approximately 0.6 miles to the southwest. Storm drainage at the project site is contained by a soil berm that lines the southern perimeter of the coke storage area.

To address construction-related impacts, a Stormwater Pollution Prevention Plan (SWPP) and training will be in place prior to the initiation of construction. The SWPP will specify appropriate practices to prevent potential runoff of soils and chemicals from the project site or into sensitive areas within the project site.

d. Indicate if the site is located within a 100-year flood hazard area.

The site is not located within a 100-year flood hazard area (SLO County, 2005).

e. Indicate if the site is located in an area subject to inundation by sieche (resonant oscillation of water), tsunami or mudflow.

The site is not located within an area subject to inundation by sieche, tsunami, or mudflow (SLO County, 2005).

References Used:

County of San Luis Obispo. 2005. San Luis Obispo County Local Hazard Mitigation Plan.

DWR. 2002. Water Resources of the Arroyo Grande-Nipomo Mesa Area. Department of Water Resources, Southern District

Groundwater Technology. 1992. Hydrogeological Assessment Report-Safety Basin and Coke Cooling and Cutting Water Pond, Unocal Santa Maria Refinery

Marine Research Specialists. 2011. Draft EIR for the ConocoPhillips Santa Maria Refinery Throughput Increase Project

Stantec. 2011. Second Half 2011 Groundwater Monitoring Report, ConocoPhillips Santa Maria Facility

10. Land Use and Planning

Description of Baseline Environmental Conditions:

a. Identify the zoning designation and allowable land uses and limitations of the site and the applicable land use plan, policy, or regulation and agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance).

The project site is zoned industrial and is located inside the Coastal Zone (San Luis Obispo County, South County-Coastal Planning Area Rural Land Use Category Map, 2012). The site is located on lands under the jurisdiction of San Luis Obispo County and land uses governed by the General Plan, Land Use Element. The site is subject to Land Use Ordinance Title 22, Chapter 22.112 South Planning Area of the San Luis Obispo County Code. It is anticipated that the project will require a grading permit and land use permit from the San Luis Obispo County.

b. Identify the applicable habitat conservation plan or natural community conservation plan and agency with jurisdiction over the project.

The project site does not occupy lands included in a habitat conservation plan or other community conservation plan. The site is not located in designated County coastal protected lands, fairy shrimp critical habitat, coastal zone environmentally sensitive habitat, red legged frog critical habitat, or San Joaquin kit fox habitat. The site lies within a vernal pool region with fairy shrimp critical habitat located to the west (San Luis Obispo County Natural Resource Maps, 2012). Please refer to Section 4 for further information on biological resources.

References Used:

San Luis Obispo County, South County-Coastal Planning Area Rural Land Use Category Map. 2012. available online at: http://www.slocounty.ca.gov/planning/zoning/Map_Image_Download_Center/Land_Use_Maps.htm

San Luis Obispo County, Natural Resource Maps. 2012. available online at: http://www.slocounty.ca.gov/planning/zoning/Map_Image_Download_Center/Natural_Resources_Maps.htm

11. Mineral Resources

Description of Baseline Environmental Conditions:

a. Identify any mineral resources that would be of value to the region and the residents of the state that are located on or in proximity to the site.

There are no known mineral resources that would be of value to the region and the residents of the state that are located on or in close proximity to the site.

b. Indicate if the site is a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

The site is not a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

References Used: n/a

12. Noise

Description of Baseline Environmental Conditions:

a. Describe those aspects of the project that would generate noise, the anticipated noise levels, and the standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Aspects of Project that would Generate Noise

Noise would primarily be generated from the operation of conventional construction equipment involved in remediation activities and railway traffic associated with waste transport. These activities would occur for a short-term duration and would not contribute to a permanent increase in noise levels.

Anticipated Noise Levels

Noise levels associated with the use of railway transport along existing railway systems is not expected to substantially increase baseline noise levels along the rail route. Noise from construction equipment operated in support of the project is expected to consist of an excavator, two loaders, and two trucks. The noise levels from operating all of this equipment simultaneously was modeled using linear attenuation of multiple point sources at nearby sensitive receptors. The noise modeling results for each sensitive receptor are summarized below and full model results are included in Appendix E.

Receptor	Distance from noise source	Predicted noise level at receptor dbA CNEL	Noise standard exceeded?
Commercial Offices NE of SMF	*3,000 feet*	*57.9*	*No*
Pismo Dunes OHV Area W of SMF	*3,000 feet*	*55.4*	*No*
Fire Station 22 N of SMF	*4,400 feet*	*57.8*	*No*
Residences N of SMF	*4,500 feet*	*52.0*	*No*

Noise Standards

The applicable noise standards governing the project area are the criteria in the County's Noise Element of the General Plan. For residential land uses the noise element recommends an exterior noise standard of 60 dbA community noise equivalent level (CNEL) and an interior noise standard of 45 dbA CNEL (as well as 70 dbA CNEL for outdoor recreation areas). The County Code limits the hours of construction adjacent to residential or sensitive land uses between 7am and 9pm Monday through Friday and between 8am and 5pm Saturdays and Sundays.

As shown in the table above no applicable noise standards will be exceed as a result of project implementation.

b. Describe those aspects of the project that would generate noise excessive groundbourne vibration or groundbourne noise levels.

The project includes limited construction equipment with the potential to generate groundbourne vibration or groundbourne noise levels. In addition, the nearest sensitive receptor is located 3,000 feet from the site. The project therefore does not include any component with the potential to generate noise excessive groundbourne vibration or groundbourne noise levels.

c. Describe ambient noise levels at and in the vicinity of the site.

Ambient noise levels in the vicinity of the site are summarized in the Draft EIR for the ConocoPhillips Santa Maria Refinery Throughput Increase Project (MRS, 2011). Ambient noise levels vary significantly in the project vicinity, primarily related to distance from transportation corridors. Community noise equivalent levels at nearby sensitive receptors range between 51.5 and 68.9 dbA.

Appendix E – Construction Noise Modeling Results

References Used:

Marine Research Specialists. 2011. Draft EIR for the ConocoPhillips Santa Maria Refinery Throughput Increase Project

13. Population and Housing

Description of Baseline Environmental Conditions:

a. Describe those aspects of the project that would induce substantial population growth in area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).

The project is limited to remediation activities within an existing facility. The project does not include a growth inducing element that would increase population directly or indirectly.

b. Describe those aspects of the project that would displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.

There are no aspects of the project that would displace existing housing.

c. Describe those aspects of the project that would displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

There are no residences within the project site, nor would remediation activities displace any people that would necessitate the construction of replacement housing elsewhere.

References Used: n/a

14. Public Services

Description of Baseline Environmental Conditions:

Describe to what extent the following services are currently being provided at or in proximity of the site:

- **Fire protection**

Public fire protection services for the site are provided by San Luis Obispo County Fire Department. The site is specifically within the primary service area of Station 22, located at 2391 Willow Road, Arroyo Grande.

- **Police protection**

Police protection services for the site are provided by San Luis Obispo County Sheriff's Department. The site is specifically within the primary service area of South Station located at 1681 Front Street in Oceano (www.slosheriff.org).

- **Schools**

The public school system (elementary [Fairgrove Elementary School; approximately 6 miles north of site], middle [Paulding Middle School, approximately 6.5 miles north of site], and high school [Lopez Continuation High School approximately 1.5 miles north and Arroyo Grande High School approximately 5 miles north of the site]) in the project area is administered by the Lucia Mar Unified School District. The project will not increase demand for school services.

- **Parks**

San Luis Obispo County Parks manages approximately 15,000 acres of parklands.

County parks range from several thousand acres of inland wilderness surrounding Lopez and Santa Margarita Lakes to micro-parks located along the scenic coast offering public access to the Pacific Ocean in the towns of Cambria, Cayucos, Morro Bay, Los Osos and Avila Beach. San Luis Obispo County Parks owns or operates seven Regional Parks and eleven neighborhood and community parks.

Oceano Memorial Park and Campground is located about ¼ miles from Pismo State Beach (approximately 6 miles north of the site). The campground offers 24 sites for RVs or tents, which include a private vehicle space, water, electricity and sewer hookups, a barbeque pit and picnic table. Capacity is 6 – 8 people per site. Visitors can also enjoy nearby Oceano Community Park and the private fishing lagoon. The park offers day-use picnic facilities, a new child's play area, basketball court and restrooms. (www.slocountyparks.com)

To the west of the site beyond the Southern Pacific Railroad is the Pismo Dunes State Vehicular Recreation Area; providing off-highway vehicle and other beach-related recreation opportunities.

- **Other public facilities**

The County of San Luis Obispo operates 15 libraries and one bookmobile. They include: Arroyo Grande Library, Atascadero (Martin Polin Regional Library), Cambria Library, Cayucos Library, Creston Library, Los Osos Library, Morro Bay Library, Nipomo Library, Oceano Library, San Luis Obispo Library, San Miguel Library, Santa Margarita Library, Shandon Library, Shell Beach Library, and Simmler Library (www.slolibrary.org).

The County of San Luis Obispo operates five hospital/medical centers. They include: Arroyo Grande Community Hospital, French Hospital Medical Center, San Luis Obispo General Hospital, Sierra Vista Regional Medical Center and Twin Cities Community Hospital service the project area. (www.slopublichealth.org).

References Used: *(www.calfireslo.org), (www.lmusd.org), (www.lmusd.org), (www.slocountyparks.com), (www.slolibrary.org) and (www.slopublichealth.org)*

15. Recreation

Description of Baseline Environmental Conditions:

Describe existing neighborhood and regional parks or other recreational facilities that are located at or in proximity of the site.

Oceano Memorial Park and Campground is located about ¼ miles from Pismo State Beach (approximately 6 miles north of the site). The campground offers 24 sites for RVs or tents, which include a private vehicle space, water, electricity and sewer hookups, a barbeque pit and picnic table. Capacity is 6 – 8 people per site. Visitors can also enjoy nearby Oceano Community Park and the private fishing lagoon. The park offers day-use picnic facilities, a new child's play area, basketball court and restrooms. (www.slocountyparks.com)
To the west of the site beyond the Southern Pacific Railroad is the Pismo Dunes State Vehicular Recreation Area; providing off-highway vehicle and other beach-related recreation opportunities.

References Used: (www.slocountyparks.com)

16. Transportation and Traffic

Description of Baseline Environmental Conditions:

a. Describe those aspects of the project that would affect the existing transportation system at and in the vicinity of the site.

The project is limited to short-term construction activities necessary to remediate inactive coke stockpiles within the facility boundary. Excavated materials exceeding applicable threshold concentrations will be loaded onto rail cars at the facility and transported via Union Pacific Railroad operated railways to ECDC landfill in East Carbon, Utah for disposal. The only aspects of the project that have the potential to affect the existing transportation system at and in the vicinity of the site will be limited to an incremental increase in personnel vehicles transiting deliveries to and from the site for a short-term duration. Some of the personnel needed in support of project activities will be reassigned from existing facility operations to support remediation activities and therefore will not contribute to an increase in traffic.

b. Describe the traffic load and capacity of the street system in the vicinity of the site.

The traffic load and capacity of the street system in the vicinity of the site has been recently documented in the Draft Environmental Impact Report prepared for a proposed increase in facility throughput (MRS, 2011). A summary of the conditions from that analysis as applicable to the project is included below.

Project traffic traveling northbound from the site uses the following route: State Route 1 (Willow Road which turns into Mesa View Drive into Cienaga Street) north to S. Halcyon Road; S. Halcyon Road, which turns into N. Halcyon Road, to E. Grand Avenue; east on E. Grand Avenue to the U.S. Highway 101 northbound ramp. This route is referred to as the Northbound Route. State Route 1 intersects twice with S. Halcyon Road. The southern segment of S. Halcyon Drive that is south of Arroyo Grande Creek prohibits truck traffic due to a significant grade up to the Nipomo Mesa.

Project traffic traveling eastbound to State Route 166 from the site uses the following route: State Route 1 (Willow Road) east to Willow Road (local); east on Willow Road to Pomeroy Road; south on Pomeroy Road to W. Tefft Street; east on W. Tefft Street to U.S. Highway 101 southbound ramp; south on U.S. Highway 101 to State Route 166 interchange; east on State Route 166. This route is referred to as the Eastbound Route.

Project traffic traveling southbound toward Santa Barbara County from the site uses the following route: State Route 1 (Willow Road/Guadalupe Road) east and then south to State Route 166; east on State Route 166 (Main Street in Santa Maria) to U.S. Highway 101 southbound Ramp at Bradley Road. This route is referred to as the Southbound Route.

The traffic on each of the three routes generally operates at Level of Service (LOS) A with two applicable segments of U.S. Highway 101 operating at LOS C and one segment on Pomeroy Road operating at LOS D. In total, the Santa Maria Facility generates approximately 206 vehicle roundtrips per day or 412 one-way vehicle trips per day.

The potential to substantially increase vehicle trips and traffic as a result of the project has been eliminated through the project design of utilizing existing rail service available from the project site to the waste receiving facility in Utah. The addition of an anticipated worst-case, incremental increase of 6 one-way vehicle trips or 12 roundtrips is not expected to substantially increase traffic and degrade the existing LOS in the project vicinity.

c. Describe the level of service standard established by the country congestion management agency for designated roads or highway.

The LOS of a roadway or intersection is described on a scale from A to F, with A indicating excellent traffic flow quality and F indicating forced flow conditions and very slow speeds. Level E is normally the maximum design capacity that a roadway or intersection can accommodate. LOS A, B, and C are generally satisfactory. LOS D is tolerable in urban areas during peak hours due to the high cost of improving roadways to LOS C. Caltrans recommends providing a target LOS between LOS C and LOS D on state highway facilities. San Luis Obispo County's current

California Environmental Quality Act traffic impact thresholds consider LOS C acceptable for County rural roads in the project area (MRS, 2011).

d. Describe any hazards due to design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) of roads or highways that may exist in the vicinity of the site.

There are no known design features in the street system that present hazards applicable to the project. The site is located in an area currently used for agriculture and farm equipment could periodically present roadway hazards to other traffic. However, the project's potential to result in upset conditions related to roadway hazards has been primarily eliminated through the project design of utilizing existing railway service from the project site directly to the waste receiving facility in located in Utah.

e. Describe emergency access routes that may exist at or in the vicinity of the site.

The ConocoPhillips Fire and Safety Department are the first responders to any emergency within the refinery confines. Emergency access routes to and from the project site include unpaved access roads in the immediate vicinity of the project site. These access roads connect directly to a paved road that extends along the western boundary of the refinery property that ends at the junction of the Contractors Entrance (Gate No. 2 Entrance) to the refinery and State Highway 1 (Willow Road).

f. Describe the current parking capacity existing at or in the vicinity of the site.

The nearest designated parking area is located adjacent to the Carbon Plant administration building located approximately 0.5 miles northwest of the project site. The parking area has a capacity of approximately 40 vehicles.

g. Describe any adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks) that may exist at or in the vicinity of the site.

There are no adopted policies, plans, or programs supporting alternative transportation at or in the vicinity of the site that are applicable to the project.

References Used:

Marine Research Specialists. 2011. Draft EIR for the ConocoPhillips Santa Maria Refinery Throughput Increase Project

17. Utilities and Service Systems

Description of Baseline Environmental Conditions:

a. Describe those aspects of the project that would require wastewater treatment approvals from the applicable Regional Water Quality Control Board.

There are no aspects of the project that would require wastewater treatment approvals from the Regional Water Quality Control Board.

b. Describe those aspects of the project that would require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities.

There are no aspects of the project that would require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities.

c. Describe those aspects of the project that would require or result in the construction of new storm water drainage facilities or expansion of existing facilities.

There are no aspects of the project that would result in the construction of new storm water drainage facilities or expansion of existing facilities.

d. Identify water supplies that are available to serve the project from existing entitlements and resources, or if new or expanded entitlements are needed.

The project has minimal water supply needs primarily related to dust suppression during excavation and loading activities. This incremental increase in demand can be accommodated using existing entitlements. The project does not include a component with the potential to substantially increase demand for water that would necessitate new or expanded entitlements.

e. Identify the wastewater treatment provider that serves or may serve the project, and indicate whether or not it has adequate capacity to serve

the projects projected demand in addition to the providers existing commitments.

Wastewater treatment at the site is provided by the South San Luis Obispo County Sanitation District. ConocoPhillips also maintains a wastewater treatment system and discharges wastewater via a Pacific Ocean outfall pipeline in compliance with a National Pollutant Discharge Elimination System Permit. The project is not anticipated to substantially increase demand for wastewater treatment.

f. Describe those aspects of the project that would require disposal of materials at a landfill, identify the landfill to be utilized, and indicate if the landfill has sufficient permitted capacity to accommodate the projects solid waste disposal needs.

Approximately 10,000 cubic yards of soil and debris mounds impacted with vanadium and nickel will be loaded onto rail cars and transported via Union Pacific Railroad railway to ECDC landfill in East Carbon, Utah. Located in East Carbon Utah, the ECDC landfill is situated on 2,500 acres of private land and is permitted for the disposal of over 300 million cubic yards of Non- RCRA wastes. The ECDC facility can process over 30,000 tons of waste per day and has sufficient capacity to accommodate the projects solid waste disposal needs (Waste by Rail, Inc., 2012)

References Used:

Waste by Rail, Inc.. 2012. available online at: http://www.wbrinc.com/landfill.html

Certification:

I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this initial evaluation to the best of my ability, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

Preparer's Signature	Date
	4/30/12

Preparer's Name	Preparer's Title	Phone #
Kirk Henning	Senior Scientist / Stantec	805-250-2854

APPENDIX A

Air Emissions Calculations

Table A-1
Estimated Offroad Equipment Emissions
ConocoPhillips Santa Maria Facility Inactive Coke Piles Remediation Project

Equipment	Quantity Used for Project	Project Use (hrs/day)	Inventory Population Factor	Inventory Activity Level (hours/day)	Inventory ROG Emissions (tons/day)	Inventory CO Emissions (tons/day)	Inventory NOX Emissions (tons/day)	Inventory CO2 Emissions (tons/day)	Inventory SOX Emissions (tons/day)	Inventory PM10 Emissions (tons/day)	Inventory N2O Emissions (tons/day)	Inventory CH4 Emissions (tons/day)
Excavator (250 bhp)	1	8	1.77	10	1.81E-04	1.35E-03	1.85E-03	7.93E-01	8.92E-06	1.28E-05	0.00E+00	1.63E-05
Loader (175 bhp)	2	8	0.96	4.13	5.50E-05	1.04E-03	8.08E-04	2.09E-01	2.35E-06	3.38E-06	0.00E+00	4.96E-06
Off-highway Truck (250 hp)	2	8	0.29	2.15	4.55E-05	3.10E-04	4.20E-04	1.79E-01	2.01E-06	2.96E-06	0.00E+00	4.10E-06

Equipment	ROG Emissions (lbs/day)	CO Emissions (lbs/day)	NOX Emissions (lbs/day)	CO2 Emissions (lbs/day)	SO2 Emissions (lbs/day)	PM10 Emissions (lbs/day)	N2O Emissions (lbs/day)	CH4 Emissions (lbs/day)	SOX Emissions (lbs/day)
Excavator (250 bhp)	0.16	1.22	1.67	716.50	0.01	0.01	0.00	0.01	0.00
Loader (175 bhp)	0.44	8.36	6.52	1688.67	0.02	0.03	0.00	0.04	0.00
Off-highway Truck (250 hp)	2.33	15.93	21.55	9175.01	0.10	0.15	0.00	0.21	0.00
TOTAL	**2.94**	**25.51**	**29.74**	**11580.18**	**0.13**	**0.19**	**0.00**	**0.27**	**0.00**

Equipment	Days	ROG Emissions (tons)	CO Emissions (tons)	NOX Emissions (tons)	CO2 Emissions (tons)	SO2 Emissions (tons)	PM10 Emissions (tons)	N2O Emissions (tons)	CH4 Emissions (tons)	SOX Emissions (tons)
Excavator (250 bhp)	90	0.01	0.06	0.08	32.24	0.00	0.00	0.00	0.00	0.00
Loader (175 bhp)	90	0.02	0.38	0.29	75.99	0.00	0.00	0.00	0.00	0.00
Off-highway Truck (250 hp)	90	0.11	0.72	0.97	412.88	0.00	0.01	0.00	0.01	0.00
TOTAL		**0.13**	**1.15**	**1.34**	**521.11**	**0.01**	**0.01**	**0.00**	**0.01**	**0.00**

NOTES

Inventory population, activity level, and emissions from Offroad 2007 output

Offroad 2007 input: year 2012, San Luis Obispo County, Annual, Monday through Sunday

Data is equipment specific for the brake-horsepower range anticipated for the project

TABLE A-2
Estimated Fugitive Dust Emissions
ConocoPhillips Santa Maria Facility Inactive Coke Piles Remediation Project

Offroad Equipment Traveling on Unpaved Surfaces							
Fugitive Dust Emissions (lbs/VMT)	Quantity of Mobile Equipment	Miles Traveled Each	PM10 Emissions (lbs/day)	PM2.5 Emissions (lbs/day)	Days	PM10 Emissions (tons)	PM2.5 Emissions (tons)
0.03	5	5	0.68	0.07	90	0.03	0.003

Material Handling and Loading										
Assumed Wind Speed (mph)	Assumed Moisture Content	Total Material Handled (tons)	Days Required to Handle/Load	Daily Material Handled/Loaded (tons/day)	PM10 Emissions (lbs/ton)	PM2.5 Emissions (lbs/ton)	PM10 Emissions (lbs/day)	PM2.5 Emissions (lbs/day)	PM10 Emissions (tons)	PM2.5 Emissions (tons)
0.03	5	16000	90	177.78	0.03	0.01	4.86	1.53	0.22	0.07

Total Fugitive Dust Emissions			
PM10 Emissions (lbs/day)	PM2.5 Emissions (lbs/day)	PM10 Emissions (tons)	PM2.5 Emissions (tons)
5.54	1.60	0.25	0.07

Notes:

Equipment on Unpaved Surfaces

Emissions (lbs/VMT) = $1.5(s/12)^a(W/3)^b$

VMT = Vehicle miles traveled

s = silt content, assumed 8.5%

W=mean vehicle weight, assumed 8.1 tons

a = 0.9, b = 0.45 for travel on unpaved surfaces within industrial sites

5 vehicles (2 loaders, two off-highway trucks, one excavator)

5 mi/day/vehicle

PM2.5/PM10 ratio of 0.1 from MRI, 2006. Background Document for Revisions to Fine Fraction Ratios Used for AP-42 Fugitive Emission Factors

Material Handling and Loading

Emissions (lbs/ton) = particle size*(0.0032)[(wind speed/5)^1.3/(moisture content/2)^1.4

Particle size constants 0.35 for PM10, 0.11 PM2.5 per AP-42 13.2.4

Wind speed 6 miles per hour, moisture content 8%

Table A-3
Estimated Onroad vehicle Emissions
ConocoPhillips Santa Maria Facility Inactive Coke Piles Remediation Project

		Emission Factors (lbs/mile)											Emissions (lbs/day)										Total Emissions (tons)								
Equipment	Fuel Type	NOX	ROG	CO	CO2	PM10	PM2.5	N2O	CH4	SOX	Trips/ Day	Miles/ Trip	NOX	ROG	CO	CO2	PM10	PM2.5	N2O	CH4	SOX	Days	NOX	ROG	CO	CO2	PM10	PM2.5	N2O	CH4	SOX
SLOAPCD																															
Light Duty Automobile	Gasoline	6.20E-04	1.90E-04	5.58E-03	6.00E-01	6.00E-05	3.00E-05	3.00E-05	5.00E-05	1.00E-05	6	50	0.19	0.06	1.67	180.00	0.02	0.01	0.01	0.02	0.00	90	0.01	0.00	0.08	8.10	0.00	0.00	0.00	0.00	0.00

Vehicle Emission Factors from Draft Throughput Expansion Project EIR

Table A-4
Estimated Locomotive Emissions
ConocoPhillips Santa Maria Facility Inactive Coke Piles Remediation Project

					Emission Factors (grams/bhp-hr)										Emissions (lbs/trip)										Total Emissions (tons)								
Equipment	Number	Fuel Type	BHP	Load Factor (%)	NOX	ROG	CO	CO2	PM10	PM2.5	N2O	CH4	SOX	Hrs/ Train Trip	NOX	ROG	CO	CO2	PM10	PM2.5	N2O	CH4	SOX	Trips	NOX	ROG	CO	CO2	PM10	PM2.5	N2O	CH4	SOX
TOTAL LOCOMOTIVE EMISSIONS																																	
Locomotives 3360	3	Diesel	4000	28	8.09E+00	4.50E-01	1.32E+00	4.87E+02	2.80E-01	2.50E-01	4.00E-02	1.00E-02	1.01E-01	26.125	1565.56	87.08	255.44	94243.52	54.19	48.38	7.74	1.94	69.53	6	4.70	0.26	0.77	282.73	0.16	0.15	0.02	0.01	0.21
SLOAPCD															7.49	0.42	1.22	450.93	0.26	0.23	0.04	0.01	0.33	6	0.02	0.00	0.00	1.35	0.00	0.00	0.00	0.00	0.00
SBCAPCD															164.80	9.17	26.89	9920.37	5.70	5.09	0.81	0.20	7.32	6	0.49	0.03	0.08	29.76	0.02	0.02	0.00	0.00	0.02
VCAPCD															89.89	5.00	14.67	5411.11	3.11	2.78	0.44	0.11	3.99	6	0.27	0.02	0.04	16.23	0.01	0.01	0.00	0.00	0.01
SCAQMD															157.31	8.75	25.67	9469.44	5.44	4.86	0.78	0.19	6.99	6	0.47	0.03	0.08	28.41	0.02	0.01	0.00	0.00	0.02
MDAQMD															239.70	13.33	39.11	14429.63	8.30	7.41	1.19	0.30	10.65	6	0.72	0.04	0.12	43.29	0.02	0.02	0.00	0.00	0.03
OUT OF STATE															906.38	50.42	147.89	54562.04	31.37	28.01	4.48	1.12	40.25	6	2.72	0.15	0.44	163.69	0.09	0.08	0.01	0.00	0.12

NOTES:

	miles	%
Total trip	1045	100
SLOAPCD trip	5	0.478
SBCAPCD trip	110	10.53
VCAPCD trip	60	5.742
SCAQMD trip	105	10.05
MDAQMD trip	160	15.31
Out of State trip	605	57.89

Total cubic yards	10000
Cubic yards per rail car	80
Total rail cars required	125
Rails cars per rail trip	20.83
Total rail trips to ECDC	6
SOX	
ppm	330
gal fuel per bhp-hr	0.336
lbs SO2/lbs S	2
engine bhp	4000
EF lbs SO2/hr	0.887
grams/lb	453.6
EF grams SO2/hr	402.36
EF grams SO2/bhp-hr	0.1006

Table A-5
Total Estimated Project Emissions
ConocoPhillips Santa Maria Facility Inactive Coke Piles Remediation Project

	Emissions (lbs/day)									Total Emissions (tons)								
Project Component	**NOX**	**ROG**	**CO**	**CO2**	**PM10**	**PM2.5**	**N2O**	**CH4**	**SOX**	**NOX**	**ROG**	**CO**	**CO2**	**PM10**	**PM2.5**	**N2O**	**CH4**	**SOX**
SLOAPCD																		
Offroad Equipment	29.74	2.94	25.51	11580.18	0.19	0.17	0.00	0.27	0.00	1.34	0.13	1.15	521.11	0.01	0.01	0.00	0.01	0.00
Fugitive Dust					5.54	1.60								0.25	0.07			
Onroad Vehicles	0.19	0.06	1.67	180.00	0.02	0.01	0.01	0.02	0.00	0.01	0.00	0.08	8.10	0.00	0.00	0.00	0.00	0.00
Locomotives SLOAPCD	7.49	0.42	1.22	450.93	0.26	0.23	0.04	0.01	0.33	0.02	0.00	0.00	1.35	0.00	0.00	0.00	0.00	0.00
TOTAL SLOAPCD	**37.42**	**3.42**	**28.41**	**12211.11**	**6.01**	**2.01**	**0.05**	**0.29**	**0.34**	**1.37**	**0.14**	**1.23**	**530.56**	**0.26**	**0.08**	**0.00**	**0.01**	**0.00**
Locomotives SBCAPCD	**164.80**	**9.17**	**26.89**	**9920.37**	**5.70**	**5.09**	**0.81**	**0.20**	**7.32**	**0.49**	**0.03**	**0.08**	**29.76**	**0.02**	**0.02**	**0.00**	**0.00**	**0.02**
Locomotives VCAPCD	**89.89**	**5.00**	**14.67**	**5411.11**	**3.11**	**2.78**	**0.44**	**0.11**	**3.99**	**0.27**	**0.02**	**0.04**	**16.23**	**0.01**	**0.01**	**0.00**	**0.00**	**0.01**
Locomotives SCAQMD	**157.31**	**8.75**	**25.67**	**9469.44**	**5.44**	**4.86**	**0.78**	**0.19**	**6.99**	**0.47**	**0.03**	**0.08**	**28.41**	**0.02**	**0.01**	**0.00**	**0.00**	**0.02**
Locomotives MDAQMD	**239.70**	**13.33**	**39.11**	**14429.63**	**8.30**	**7.41**	**1.19**	**0.30**	**10.65**	**0.72**	**0.04**	**0.12**	**43.29**	**0.02**	**0.02**	**0.00**	**0.00**	**0.03**
Locomotives out-of-state	**906.38**	**50.42**	**147.89**	**54562.04**	**31.37**	**28.01**	**4.48**	**1.12**	**40.25**	**2.72**	**0.15**	**0.44**	**163.69**	**0.09**	**0.08**	**0.01**	**0.00**	**0.12**

NOTES:
Offroad 2007 does not quantify PM2.5 emission factors for offroad equipment
PM2.5 emissions for offroad equipment estimated using 89% of PM10 emissions
SCAQMD Final Methodology to Calculate PM2.5, October 2006

Table A-6
Total Estimated Project Greenhouse Gas Emissions
ConocoPhillips Santa Maria Facility Inactive Coke Piles Remediation Project

	Total Tons			Total Metric Tons			Total Metric Tons
Project Component	**CO2**	**N2O**	**CH4**	**CO2**	**N2O**	**CH4**	**CO2e**
SLOAPCD							
Offroad Equipment	521.11	0.0000	0.0119	473	0	0.227	473.23
Onroad Vehicles	8.10	0.0004	0.0007	7.3	0.112	0.013	7.43
Locomotives SLOAPCD	1.35	0.0001	0.0000	1.2	0.028	0	1.23
TOTAL SLOAPCD	530.56	0.0005	0.0126	481.5	0.14	0.24	**481.88**
Locomotives SBCAPCD	29.76	0.0024	0.0006	27	0.675	0.011	**27.69**
Locomotives VCAPCD	16.23	0.0013	0.0003	14.7	0.366	0.006	**15.07**
Locomotives SCAQMD	28.41	0.0023	0.0006	25.8	0.647	0.011	**26.46**
Locomotives MDAQMD	43.29	0.0036	0.0009	39.3	1	0.017	**40.32**
Locomotives out-of-state	163.69	0.0134	0.0034	148	3.8	0.065	**151.87**

Total Project CO2e emissions (metric tons)	**743.28**

NOTES:
CO2e emissions generated using U.S. EPA Greenhouse Gas Equivalencies Calculator, May 2011

APPENDIX B

Biological Resources Study Report

BIOLOGICAL RESOURCE ASSESSMENT:

CONOCO PHILLIPS SANTA MARIA FACILITY INACTIVE COKE STORAGE AREA REMEDIATION PROJECT, SAN LUIS OBISPO COUNTY (APN 092-401-011)

April 11, 2012

Submitted to:

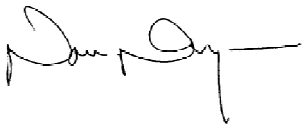
Stantec, Inc.
San Luis Obispo, CA 93401

Prepared by:

TENERA Environmental
San Luis Obispo, CA 93401

Statement of Certification

I hereby certify that the statements furnished in this report and associated maps are true and correct to the best of my knowledge and belief; and I further certify that I was present throughout the site visit(s) associated with this report.



Dan Dugan
Senior Biologist, Tenera Environmental

27 April 2012
Date

EXECUTIVE SUMMARY

This report presents the results of a biological resources assessment conducted by Tenera Environmental for Stantec, Inc. and ConocoPhillips Company. The subject of the assessment is an approximately four-acre area (Study Area) on the ConocoPhillips Santa Maria Refinery (SMF) property (APN 092-401-011) located in the southwestern region of Arroyo Grande, California. The street address of the refinery is 2555 Willow Road, Arroyo Grande, CA 93420. The Study Area is located within the fenced portion of the refinery property and is situated adjacent to the active petroleum coke storage area at the southeastern end of the fenced enclosure. The Study Area is the site of the proposed ConocoPhillips Santa Maria Facility Inactive Coke Storage Area Remediation Project (Project), which entails the remediation of metals-impacted soils within discrete segments of the Study Area. The Department of Toxic Substances Control (DTSC) is the California Environmental Quality Act (CEQA) Lead Agency for the project and has requested information related to baseline environmental conditions at the site to evaluate potential environmental impacts of the project pursuant with CEQA. The purpose of this biological resources assessment is to provide the requested information on the biological and botanical resources present in the action area and to evaluate the impacts of proposed project activities to resources in the affected areas.

This biological resources assessment entailed a review of available records for the project vicinity and a thorough field reconnaissance of the property. Prior to the field survey a Rarefind 3 search of the California Natural Diversity Database (CNDDB) was conducted for an eight quadrangle (USGS 7.5 minute) area surrounding the Study Area. The CNDDB search was conducted to develop a list of target special status plants and wildlife that have the potential to occur in the project vicinity. A list of 46 special status plant species, 6 sensitive communities, and 28 special status wildlife species were identified in the CNDDB queries. Through additional analysis of distribution and ecological requirements the plant list was revised to 33 plants and 2 sensitive plant communities with a potential for occurrence in the immediate project area.

A reconnaissance level field survey of the Study Area was conducted by Tenera Environmental biologist Mr. Dan Dugan during the morning and early afternoon hours of March 1, 2012. The site survey was completed in approximately four hours. The primary plant community present on the site is a ruderal community dominated by non-native invasive grasses, weedy forbs, and a few native shrubs. Ruderal plant communities are not considered sensitive natural communities. A degraded central dune scrub community is present in some perimeter areas of the Study Area and occupies much of the surrounding landscape.

No federal or state listed plant species were found on the site during the field survey, however, one rare plant, dune ragwort (*Senecio blochmaniae*), was identified on the site by a single specimen. Dune ragwort is included on list 4.2 of the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants due to its limited distribution. Due to the disturbed condition of the site the presence of other sensitive plant species is considered unlikely. The survey was not conducted during the flowering period of many of the local native plants.

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1.0 INTRODUCTION

Tenera Environmental has prepared the following report presenting the results of a biological resources assessment for the ConocoPhillips Santa Maria Facility (SMF) Inactive Coke Storage Area Remediation Project (Project). The assessment was conducted for an approximately four-acre area within the ConocoPhillips SMF property (APN 092-401-011), located in the southwestern region of Arroyo Grande, San Luis Obispo County, California. The project site (Study Area) is located adjacent to the active petroleum coke storage area within the fenced enclosure around the ConocoPhillips SMF. The Project entails the remediation of metals-impacted soils within the Study Area.

The Department of Toxic Substances Control (DTSC) is the California Environmental Quality Act (CEQA) Lead Agency and has requested information related to baseline environmental conditions at the site necessary to evaluate potential environmental impacts of the project pursuant with CEQA. The purpose of this biological resources assessment is to provide the responsible regulatory entities with information about the wildlife and botanical resources present, or potentially present, on the site and in the site vicinity, and to evaluate the impacts of the proposed project activities to resources in the subject areas.

2.0 PROJECT DESCRIPTION

The Project involves the remediation of soils containing vanadium and/or nickel from discrete locations within the Study Area where concentrations that exceed accepted thresholds (Total Threshold Limit Concentration [TTLC] or Soluble Threshold Limit Concentration [STLC]) were found to be present. The Study Area contains historical, inactive accumulations of soil, brick and other construction debris within a larger area of soil mounds located along the fringe of the active coke storage area on the SMF. The soil mounds range from approximately 3–15 feet in height relative to surrounding areas and consist primarily of dune sand, coke, and windblown coke particles. The subject area is bounded by an earthen embankment. Vegetation coverage on the soil mounds is variable, with some areas supporting little or no vegetation and other areas supporting a ruderal plant community comprised of invasive grasses and scattered native dune scrub species. Areas to the south and east of the earthen embankment support a plant community comprised of varying coverages of invasive grasses and native dune scrub species.

Preliminary soil sampling and analysis was conducted by the DTSC in April 2009 and additional samples were collected and analyzed during 2009-2010 to further evaluate the concentrations of vanadium and/or nickel in the subject soil mounds. The lateral and vertical extent of the metals-impacted soils were delineated through the collection of numerous surface and subsurface soil samples. Soil samples were analyzed for both total and soluble metals. Soil sampling and analysis resulted in the identification of eleven discrete sites within the Study Area where remediation of metals-impacted soils was indicated. Of the three remedial methods evaluated (chemical stabilization, waste recycling, and soil removal), soil removal was determined to be the most feasible option.

The soil removal remediation method involves direct excavation of impacted soils and the transportation of the excavated material to an appropriately permitted disposal or recycling facility. Soil excavation and removal activities will be accomplished using equipment such as track-mounted excavators or front-end loaders. Qualified field personnel will be onsite to direct excavation activities and collect soil samples. The limits of soil excavation and removal will be confined to the eleven delineated perimeters identified during the site soils assessment. Metals-impacted soil will be loaded directly into rail cars on the onsite spur for transportation to an offsite disposal site. Dust control will be accomplished during remedial excavation activities by wetting the ground within the disturbed areas as needed with a water truck and in accordance with applicable permit requirements.

Remedial excavation activities will remove a total estimated volume of approximately 10,320 cubic yards of material from the site. Proposed excavation depths within the eleven subject sites range from approximately 2.5–13.0 feet below ground surface (bgs) and will impact a total of approximately less than one acre of ruderal habitat. **Table 1** presents the estimated volume and area of disturbance for each of the eleven remediation sites. Additional areas would be impacted in order to access some of the remedial sites.

Table 1. Table showing estimated excavation volumes and disturbance areas for remediation sites.

Location	Volume (Cubic Yards)	Area (acres)
Site 1	5,760	0.371
Site 2	3,720	0.147
Site 3	180	0.027
Site 4	60	0.010
Site 5	90	0.018
Site 6	114	0.022
Site 7	84	0.017
Site 8	120	0.024
Site 9	36	0.007
Site 10	120	0.024
Site 11	36	0.008
Total	**10,320**	**0.675**

3.0 SURVEY PURPOSE AND METHODS

The purpose of this biological resources assessment is to provide the Department of Toxic Substances Control (DTSC) and other responsible regulatory agencies with current information about botanical and wildlife resources present in the Study Area and in the site vicinity. Information presented in this report is the result of a thorough review of available environmental documentation and species occurrence records for the project vicinity and a reconnaissance level field survey of the site. The objective of the study is to identify any resources that may exist within the Study Area, including the presence or potential presence of rare plants, special status wildlife species and/or sensitive habitats. Study results will be used to evaluate potential environmental issues associated with the proposed remediation of metals-impacted soils present on the site.

A data review was conducted in an effort to compile and summarize existing information on the sensitive botanical and biological resources in southern San Luis Obispo County. The review was conducted prior to the field survey and the results were used to prepare a target species list of special status plant and wildlife species that have the potential to occur in the project area. The primary data sources used were the California Natural Diversity Database [CNDDB] Rarefind 3 (CDFG 2012a), and the California Native Plant Society's [CNPS] Inventory of Rare and Endangered Plants of California (CNPS 2012). The CNDDB includes documented occurrences of all state and federally listed animals, plants, and natural communities along with those that are candidates for listing, are of special concern, or are considered 'sensitive' by government agencies such as the California Department of Fish and Game (CDFG), or non-governmental conservation organizations such as the CNPS. For the purpose of this analysis sensitive botanical and biological resources are defined as those that meet one or more of the following criteria:

Botanical Resources

- State or federally listed, or proposed as a candidate for listing as rare, threatened, or endangered (CDFG 2012b)
- Plants and plant communities identified by the CNDDB as having special status (CDFG 2012a)
- Plants listed by the CNPS in the online version of its Inventory of Rare and Endangered Plants of California (CNPS 2012)

Wildlife Resources

- Listed animal species or those proposed for listing as threatened or endangered under the federal Endangered Species Act (50 CFR 17.11 for listed animals; Federal Register notices for species proposed for listing)
- Species listed by the U.S. Fish and Wildlife Service as birds of conservation concern (USFWS 2008)

- Listed species or those proposed for listing as threatened and endangered under the California Endangered Species Act (14 CCR 670.5)
- Animal species of special concern to the CDFG (Shuford and Gardali, 2008 [birds]; Bolster, 1998 [mammals])
- Animal species that are fully protected in California (California Fish and Game Code, Section 3511 [birds], 4700 [mammals], and 5050 [reptiles and amphibians])
- Special Animals- CNDDB special animals (may include taxa considered endangered or rare under Section 15380(d) of the California Environmental Quality Act (CEQA) guidelines; taxa that are biologically rare, very restricted in distribution or declining throughout their range; population(s) in California that may be peripheral to the major portion of a taxon's range, but which are threatened with extirpation in California; and taxa closely associated with habitat that is declining in California (e.g., wetlands, riparian, old growth forest, desert aquatic systems, native grasslands); this category may apply to species at specific stages (e.g., wintering, rookery, breeding, nesting activities)

A list of special status plants and wildlife species with the potential to occur in the project area was compiled by conducting an eight-quadrangle query of the CNDDB Rarefind 3 database (CDFG 2012a), and queries of the CNPS database (CNPS 2012), and USFWS Birds of Conservation Concern (USFWS 2008). The project is located within the Oceano 7.5 minute U.S. Geological Survey (USGS) quadrangle. The seven surrounding 7.5 minute quadrangles for which a CNDDB database query was conducted were Pismo Beach, Arroyo Grande NE, Tar Spring Ridge, Nipomo, Santa Maria, Guadalupe, and Pt. Sal. The Oceano quadrangle is bounded to the west by the Pacific Ocean. A total of 46 special status plant species, 6 sensitive communities, and 49 special status wildlife species were identified in the data search. Additional analysis of the known range and habitat requirements of the plant species was conducted to produce a revised, shortened list of 33 plants and 2 sensitive plant communities with a potential for occurrence in the immediate project area.

A field survey was conducted following the data review to determine if any special status plants, wildlife species, and/or sensitive natural communities were present on the site. The survey entailed a general reconnaissance of the site to identify the different plant communities followed by an area by area survey to inventory the plant species within each remediation area and to detect and identify any special status plants. Plant identification was verified using *The Jepson Manual: Higher Plants of California* (Hickman 1993).

The primary objective of the wildlife surveys was to determine if listed or special status animal species were present on the Study Area property, however, all wildlife species observed or detected during the surveys were documented. Surveys entailed observations from various points on the property using 10x40 binoculars to aid in the detection and identification of wildlife species. Wildlife species were identified through direct observation, calls, or sign such as tracks, scat, pellets, hair, nests, or dens.

4.0 PROJECT LOCATION AND SETTING

This section describes the project location and general environmental setting. Specifics on the existing conditions within the Study Area are described in Section 5.0—*Survey Results*.

4.1 Project Location

The subject of the assessment is an approximately four-acre area (Study Area) located on the ConocoPhillips Santa Maria Refinery (SMF) property (APN 092-401-011) in the southwestern region of the City of Arroyo Grande in San Luis Obispo County, California (**Figure 1**). The SMF is situated west of State Highway 1 and is accessed from Highway 1 along its northern property boundary. The street address of the SMF is 2555 Willow Road, Arroyo Grande, CA 93420. The Study Area is located within the fenced portion of the refinery property and is situated adjacent to the active petroleum coke storage area at the southeastern end of the fenced enclosure.

4.2 Climate

The project area has a coastal Mediterranean climate, with long, dry, summers and short, wet, mild winters. During the late spring and summer months dense fog is common in the morning and acts to moderate summer temperatures. Average daily high temperatures during the summer months are in the mid-60s°F and average daily lows in the low to mid-50s°F. Average daily winter temperatures range from highs in the low 60s°F to lows in the mid-40s°F. Average monthly temperatures in the site vicinity are around 61°F during the summer months and 53°F during the winter months. On average the warmest month is September and the coolest month is December. Rainfall is highly variable within and between winter seasons with an average of 44 days with measurable precipitation annually (www.weatherbase.com). Annual precipitation ranges from 13 to 17 inches with an average annual precipitation of 15 inches per year (CDWR 2004). The average annual precipitation in the area is 17.1 inches with most of the precipitation occurring from November to April and highest rainfall occurring in February (**Table 2**).

4.3 Hydrology

The Study Area is located in the western region of the 1,880 square mile (1,203,200 acre) Santa Maria Watershed in southern San Luis Obispo and northern Santa Barbara counties, California. The Santa Maria Watershed encompasses three large sub-watersheds: Guadalupe, Cuyama Valley, and Sisquoc, which each contain many smaller drainages. The Study Area is located in the northwestern region of the 10,370 acre Oso Flaco drainage, which lies within the Guadalupe subwatershed.

The Study Area is located on a coastal terrace above, and to the north of, the Oso Flaco Creek Valley. Both Oso Flaco and Little Oso Flaco creeks are located within 0.6 miles (south) of the site. Little Oso Flaco Lake and Oso Flaco Lake are located approximately 1.2 and 1.6 miles, respectively, to the west. Surface water in the site vicinity generally drains to the south and west toward Oso Flaco and Little Oso Flaco creeks. However, the Study Area is surrounded by an earthen embankment that would be expected to impede natural drainage.

4.4 Soils

The SMF is located on a coastal terrace in the east-central region of the 18-mile-long Guadalupe-Nipomo Dune Complex. Soils on the site are within a map unit classified as dune land by the Natural Resources Conservation Service (NRCS) (USDA 1984). Dune land soils occur in hilly areas near the coast that are composed of sand-sized particles that shift with the wind. Soils within the map unit are comprised of fine sand to a depth of 60 inches or more. The thickness of the dune sand may range from several feet in dune swales to more than 130 feet thick at dune crests. Dune land soils are somewhat excessively drained, with very rapid permeability and very low available water capacity. Surface runoff is slow and the hazard of wind blowing is very high (USDA 1984). The hazard of water erosion is slight to high depending on the slope (USDA 1984).

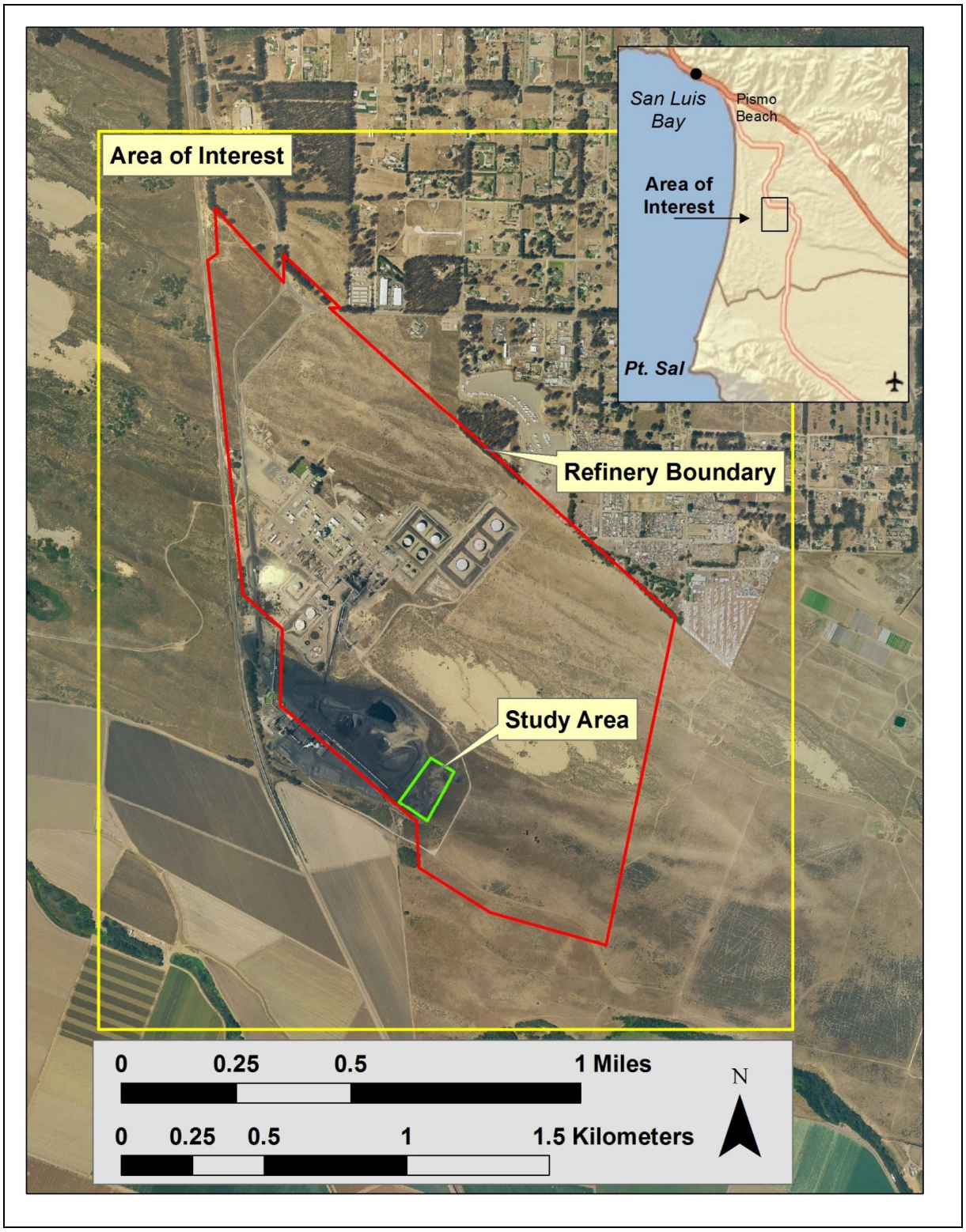

Figure 1. Aerial image of ConocoPhillips SMF and study area location. Refinery boundary from Marine Research Specialists (2011; Figure 2-1).

Table 2. Annual weather variation for Oceano, California.
(Source: www.weather.com)

Month	Avg. High	Avg. Low	Mean	Avg. Precip. (inches)	Record High Temp.	Record Low Temp.
Jan	60ºF	45ºF	53ºF	3.04	85ºF (1976)	24ºF (1950)
Feb	61ºF	46ºF	54ºF	3.96	90ºF (1995)	28ºF (1996)
Mar	62ºF	47ºF	55ºF	3.04	90ºF (2000)	23ºF (1963)
Apr	64ºF	48ºF	56ºF	1.14	101ºF (1989)	31ºF (1999)
May	65ºF	50ºF	58ºF	0.41	100ºF (1970)	30ºF (1988)
Jun	66ºF	52ºF	59ºF	0.07	99ºF (1976)	37ºF (1999)
Jul	66ºF	54ºF	60ºF	0.03	104ºF (1953)	38ºF (1949)
Aug	67ºF	55ºF	61ºF	0.07	108ºF (1962)	39ºF (1963)
Sep	68ºF	54ºF	61ºF	0.14	100ºF (1966)	35ºF (1988)
Oct	67ºF	52ºF	60ºF	0.87	99ºF (1964)	32ºF (1949)
Nov	65ºF	48ºF	57ºF	1.52	91ºF (1997)	29ºF (1986)
Dec	60ºF	44ºF	52ºF	2.73	92ºF (1958)	24ºF (1990)

Note: September is the average warmest month; December is the average coolest month.

4.5 Land Use

The ConocoPhillips SMF was constructed in 1955 and occupies approximately 2.5 square miles on the Arroyo Grande Mesa. The parcel is zoned for industrial use and currently includes an operating refining facility plus unutilized areas of coastal dunes supporting coastal dune vegetation. The site is bounded by industrial and residential uses to the north; industrial, agricultural and recreational (golf course) uses to the east; agricultural uses to the south; and open space and recreational uses to the west.

No information was available regarding the historic use of the Study Area, when deposition of petroleum coke was first initiated, or when the area became inactive.

5.0 SURVEY RESULTS

5.1 Field Survey Conditions

The field survey of the site was conducted during the morning and early afternoon hours of March 1, 2012 by Tenera Environmental biologist Mr. Dan Dugan. The field survey of the approximately 4.0 acre Study Area was completed in approximately 4 hours. Weather conditions during the survey were mostly sunny with an air temperature of 56°F at the beginning of the survey and winds from 10 to 15 miles per hour out of the northwest. Survey timing was early in the growing season and was not within the flowering period of many of the special status plant species identified during the data search.

5.2 Study Area Description

The topography, vegetation communities, and extent of proposed remedial actions vary within the Study Area, so for descriptive purposes the Study Area was divided into three work areas: Area 1 (northwest mounds), Area 2 (southwest mounds), and Area 3 (northeast mounds). Within these three areas are the eleven sites where remedial soil removal will occur: one site in Area 1, two in Area 2, and eight in Area 3 (**Figure 2**).

The three work areas support highly disturbed habitat comprised of mounds of sand and coke material previously deposited on natural dune sands. The deposited soils have been colonized by an assemblage of introduced/invasive and native plant species. Also present within the deposited soils are some brick and other construction debris. Representative site photographs are shown in **Appendix A**. General descriptions of the terrain, plant community, and extent of remedial activities proposed for each work area are provided below:

Area 1

Area 1 is located in the northwestern part of the Study Area and is contiguous with, and located immediately to the north of, Area 2. Area 1 is primarily comprised of mounds of sand, coke, and pulverized coke approximately 10–15 feet in height above the access road, which borders it to the west. The vegetation is patchy in distribution and limited in both coverage and diversity. The four plant species identified within Area 1 were invasive perennial veldt grass (*Ehrharta calycina*) and pampas grass (*Cortaderia jubata*), and native salt grass (*Distichlis spicata*) and deerweed (*Lotus scoparius*). Previous soil sampling results indicated that the deepest metals-impacted soil occurs at 5 feet bgs in Area 1.

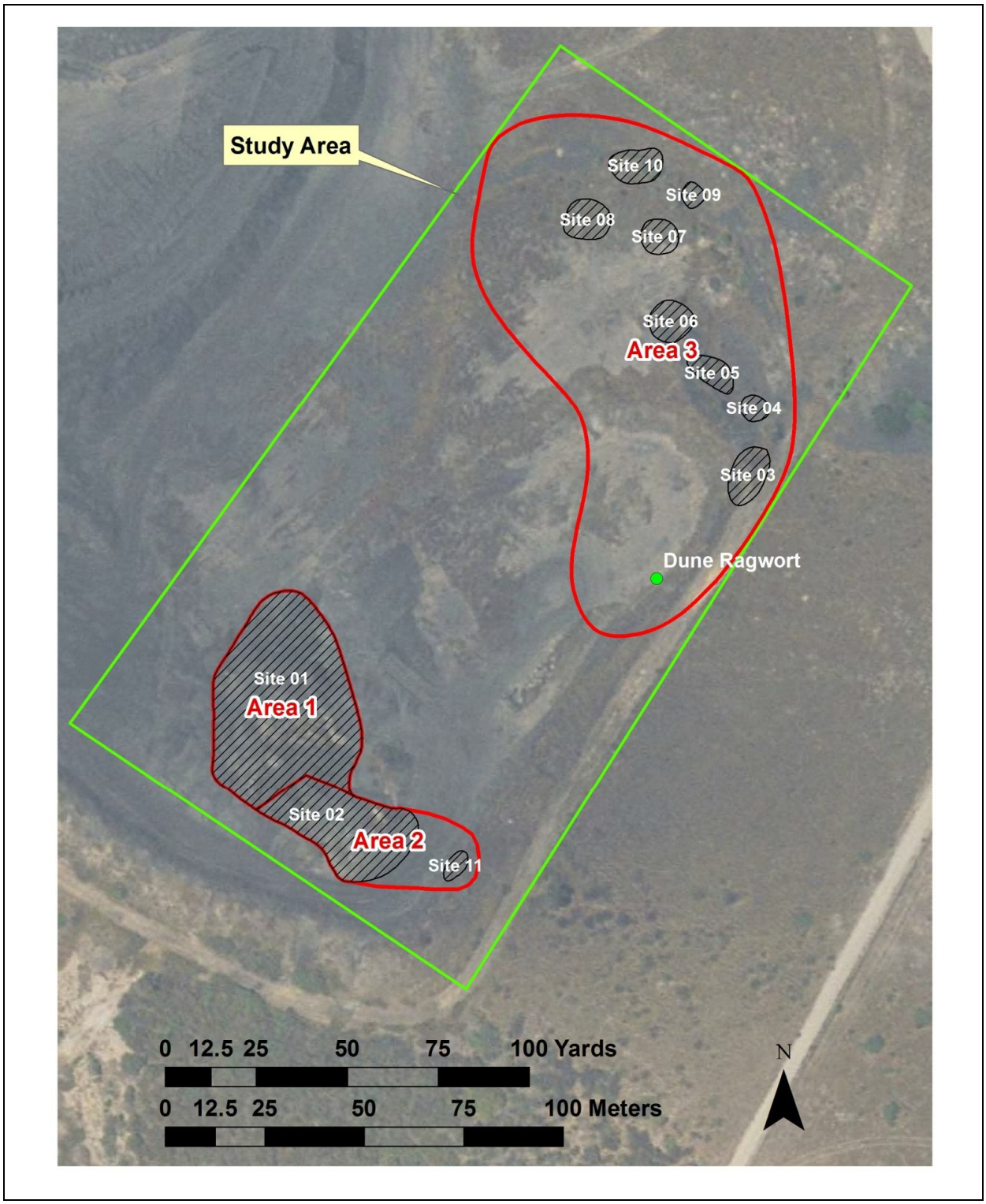

Figure 2. View of Study Area showing the locations of the three work areas, eleven remediation sites, and the dune ragwort plant found during the field survey.

Area 2

Area 2 is located to the south of, and contiguous with, Area 1 and is bordered to the south and west by an access road and earthen embankment. Area 1 and Area 2 differ primarily in the vertical extent of metals impacted soils, with Area 2 containing deeper soils in need of remediation. Area 2 includes two sites (Sites 2 and 11) where remedial activities will be completed, an area on the north side of the earthen embankment, and a pile to the north and west of the access road that is primarily comprised of sand, coke, and pulverized coke. The height of the pile ranges from approximately 10–15 feet above the access road. Subsurface sampling indicated that the deepest impacted soil in Area 2 occurs at a depth of 13 feet bgs.

The plant community in Area 2 is patchily distributed and separated by expanses of bare soil (sand and coke). Although sparsely vegetated, Area 2 supports greater coverage and more species than Area 1. Plant species identified within Area 2 include invasive perennial and annual grasses, native saltgrass, three native shrubs (mock heather [*Ericameria ericoides*], coyote brush [*Baccharis pilularis*], and deerweed), a single non-native tree/shrub (golden wattle [*Acacia longifolia*]), a non-native weedy forb (wild radish [*Raphanus sativus*]), and several escaped ornamentals including African daisy (*Osteospermum* sp.) and carpet geranium (*Geranium incanum*). The non-native grasses identified within Area 2 include perennial veldt grass and pampas grass, and the following annual grasses: ripgut brome (*Bromus diandrus*), wild oat (*Avena fatua*), Italian ryegrass (*Lolium multiflorum*), and foxtail barley (*Hordeum murinum* ssp. *leporinum*).

Area 3

Area 3 is located in the northeastern part of the Study Area, to the east of Areas 1 and 2, and is comprised of two large sand dunes ranging from approximately 3–15 feet in height with irregular terrain caused by smaller soil mounds on top of the larger dunes. The soil mounds in Area 3 that are in need of remediation appear distinct and isolated relative to other soil mounds in Area 3. The analytical results of the soils assessment indicate that the lateral extent of vanadium and/or nickel impacted soil comprises eight distinct areas (Sites 3 through 10) in Area 3. Subsurface sampling in Area 3 indicates that metal-impacted soils are primarily limited to the upper soil layers, with the deepest impacted soil found at 3.5 feet bgs.

Soils in Area 3 have been colonized extensively by perennial veldt grass and pampas grass, and these two invasive species are the predominant plant species. A variety of native central dune scrub species are present along the northern and eastern perimeter of Area 3 and sporadically within the central area dominated by veldtgrass and pampas grass. These include coyote brush, deerweed, silver dune lupine (*Lupinus chamissonis*), buckwheat (*Eriogonum parvifolium*), and one arroyo willow (*Salix lasiolepis*). Two non-native herbaceous weeds, redstem filaree (*Erodium cicutarium*), and English plantain (*Plantago lanceolata*), and invasive hottentot-fig (*Carpobrotus edulis*) were also identified in Area 3.

5.3 Plant Communities

Two plant communities were identified within the Study Area during the field survey: a ruderal community and a degraded central dune scrub community. The Study Area is within an inactive region of the petroleum coke storage area on the SMF and, although currently inactive, past disturbance has resulted in the establishment of a ruderal plant community comprised predominantly of non-native and invasive plant species. A few native shrubs were also found scattered within areas occupied by the ruderal community. The northern perimeter of Area 3 supports a plant community comprised largely of plant species characteristic of a central dune scrub plant community. An assemblage of native shrubs is present in this area along with various non-native grasses and weedy forbs. This degraded central dune scrub community extends to the east and northeast of the Study Area. A relatively intact stand of central dune scrub is present immediately south of the Study Area. A brief description of the two plant communities follows:

Ruderal Community — Ruderal, or anthropogenic, plant communities occur in areas where native flora has been removed or substantially disturbed by grading, cultivation, or other surface disturbances. The composition of plant species in ruderal communities is variable and is comprised of species adapted to colonizing disturbed soils. Ruderal communities are typically dominated by exotic/invasive weedy plants, however, some native plants may also be present. Native vegetation may ultimately become at least partially reestablished in ruderal areas if there is no further disturbance. Ruderal plant communities are not considered sensitive natural communities.

Central Dune Scrub Community — Central dune scrub communities occupy stabilized sand dunes along the California coastline (Holland and Keil 1995). They are discontinuous along the coast and intermittent with various non-sandy coastal habitats that support different plant communities. Dune scrub communities are found inland of the pioneer dune communities that generally occupy the foredunes. Central dune scrub refers to those dune scrub communities found between Bodega Bay and Point Conception (Holland 1986). These communities are dominated by shrubs which often include coyote bush, mock heather, California sagebrush, deerweed, and black sage (Holland and Keil 1995). The well-developed vegetation within the community results in sandy soil that is richer in organic matter and superior at water retention than foredune sand. Ancient sand dunes occupied by central dune scrub will often ultimately support chaparral, coast live oak, or Monterey pine forests.

Central dune scrub is defined as a sensitive natural community in the CNDDB with a global rank of G2 and a state ranking of S2.2. A global rank of G2 indicates that this community type is “imperiled” and at high risk of extinction due to a very restricted range between 2,000 to10,000 acres (CNPS 2012). A state rank of S2.2 also indicates the restricted range and although central dune scrub has no legal protection, it is considered a sensitive and uncommon community.

5.4 Special Status Plants

A total of 46 special status plant species and 6 sensitive communities were identified in the CNDDB queries of the 8 quadrangles surrounding the project site. Additional analysis of the known range and habitat requirements of the plant species was conducted to produce a revised, shortened list of 33 plants and 2 sensitive plant communities with a potential for occurrence in the immediate project area. The list is presented in **Appendix B**. Ten of the species are known to occur in central dune scrub habitat in the general vicinity of the ConocoPhillips SMF and therefore were considered to have a moderate potential for occurrence in similar dune scrub habitat near the study area.

5.5 Botanical Inventory

The disturbed nature of the site has resulted in the presence of a plant community characterized by low species diversity and an abundance on invasive and non-native plant species. A total of 22 plant species was identified on the site during the field survey including 2 tree species, 7 shrubs, and 13 herbs. The field visit was performed early in the spring and prior to the flowering period of many plant species so additional annual plants may be present on the site that were not detected during the field survey. One rare plant, dune ragwort (*Senecio blochmaniae*), represented by a single specimen, was identified on the site during the field survey (**Figure 2**). Dune ragwort is included on list 4.2 of the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants due to its limited distribution. **Table 3** presents an inventory of plant species identified during the field survey showing the area and community within which each species was found, and the relative abundance of each within the community.

Table 3. Inventory of plant species identified within specific areas and habitats in the Study Area.

Scientific Name **Common Name**	**Area (1, 2, or 3)**	**Ruderal Habitat**	**Central Dune Scrub Habitat**
Trees			
Acacia longifolia Golden wattle	**2**	**R**	
Salix lasiolepis Arroyo willow	**3**		**R**
Shrubs			
Baccharis pilularis Coyote bush	**1, 2**	**U**	**C**
Cortaderia jubata+ Pampas grass	**1, 2, 3**	**D**	**C**
Ericameria ericoides Mock heather	**2**	**R**	
Eriogonum parvifolium Dune buckwheat	**3**		**C**
Lotus scoparius Deerweed	**1, 2, 3**		**C**
Lupinus chamissonis Silver dune lupine	**3**		**U**
Senecio blochmaniae Dune ragwort	**3**	**R**	
Herbs			
Avena fatua+ Wild oat	**2**	**U**	
Bromus diandrus+ Ripgut brome	**2**	**U**	
Carpobrotus edulis + Hottentot-fig	**3**		**U**
Distichlis spicata Salt grass	**2, 3**	**C**	
Ehrharta calycina+ Perennial veldt grass	**1, 2, 3**	**D**	**C**
Erodium cicutarium+ Redstem filaree	**3**	**C**	**C**
*Geranium incanum * Carpet geranium*	**2**		**R**
Heterotheca grandiflora Telegraphweed	**3**		**U**
Hordeum murinum+ Foxtail barley	**2**	**U**	
Lolium multiflorum + Italian ryegrass	**2**	**U**	
*Osteospermum sp. * African daisy*	**2**	**U**	
Plantago lanceolata + English plantain	**3**		**U**
Raphanus sativus+ Wild radish	**2**		**R**

Table legend:+ Invasive introduced species;*Ornamental species; D- Dominant; C- Common; O- Occasional; U- Uncommon; R- Rare

5.6 Wildlife Survey

A total of 16 wildlife species were identified on the project site or in the immediate vicinity during field surveys **(Table 4)**. These species include 10 birds, 3 mammals, 1 reptile, and 2 invertebrates. No special status species were identified on the site during the surveys.

Based on the criteria described in the methods section of this report, a total of 49 sensitive special status wildlife species were identified as occurring within the eight-quadrangle query area surrounding the Study Area. A list of these species, as well as their legal status, preferred habitat, and potential to occur on the project site is provided in **Appendix B**.

Table 4. Inventory of wildlife species identified within the Study Area.

Scientific Name **Common Name**	***Scientific Name*** **Common Name**
Birds	**Mammals**
Aphelocoma californica Western scrub jay	*Canis latrans* Coyote
Buteo jamaicensis Red-tailed hawk	*Sylvilagus* spp. Rabbit
Calypte anna Anna's hummingbird	*Thomomys bottae* Bottae's pocket gopher
Cathartes aura Turkey vulture	**Reptiles**
Falco sparverius American kestrel	*Sceloporus occidentalis* Western fence lizard
Passerculus spp. or *Melospiza* spp. Unidentified sparrow	
Pipilo crissalis California towhee	**Invertebrates**
Polioptila caerulea Blue-gray gnatcatcher	*Danaus plexippus* Monarch butterfly
Sturnella neglecta Western meadowlark	*Callophrys* spp. Hairstreak butterfly (green)
Zenaida macroura Mourning dove	

6.0 Discussion

6.1 Existing Plant and Wildlife

The results of the field survey indicate that the Study Area supports a low diversity of both plant and animal species. The Study Area is a previously disturbed site that has been colonized by a variety of invasive plants and grasses, a few native shrubs, and several escaped ornamentals. Area 1 and Area 2 are sparsely vegetated and offer habitat of little function or value for wildlife. Area 3 is more densely vegetated but the plant community is comprised predominantly of two non-native, invasive species—perennial veldt grass and pampas grass. The perimeter of Area 3 supports a degraded central dune scrub plant community. One rare plant species, dune ragwort, was found in Area 3 but the single specimen is not in an area that will be impacted by the remediation activities. As a result of the disturbed nature of the Study Area, no other rare plant species are expected to be present. All but one of the special status plants that were identified as having a moderate potential for occurrence in the immediate project vicinity are perennial herbs that would have had a high likelihood of being detected and identified during the field survey. The one annual plant, coastal goosefoot, would not have been flowering at the time of the survey but the vegetative growth would have been detected had it been present.

Area 3 offers generally higher functions and values for wildlife than Area 1 and Area 2 due to the more abundant vegetation, which provides cover and foraging functions. Burrows are relatively abundant in Area 3 indicating the presence of a population of fossorial rodents. These rodents would provide a prey base for predatory mammals and raptors. One recently excavated burrow observed in Area 3 was of sufficient size to be a badger den. Based on habitat conditions observed during the site survey and analysis of the habitat requirements of the species listed in **Appendix B**, the following nine sensitive wildlife species are considered to have a moderate potential for occurrence on the project site:

- American badger
- Allen’s hummingbird
- Burrowing owl
- California horned lark
- Coast horned lizard
- Silvery legless lizard
- Morro blue butterfly
- Oso Flaco flightless moth
- Oso Flaco robber fly

Areas located to the south, west, and east provide much higher habitat functions and values for wildlife than the Study Area, and a number of other special status wildlife species may occur in these areas, either as resident species or occasional visitors. Due of the proximity of the Study

Area to these higher value habitat areas, the occasional presence of other special status species such as bats, passerine birds, and raptors is possible. Additionally, although considered unlikely due to the distance from suitable permanent or seasonal water bodies, burrows within the Study Area have a low potential for use as summer aestivation habitat for species such as the California red-legged frog and southwestern pond turtle.

6.2 Potential Project Impacts

Implementation of the project will result in the excavation of an estimated 10,320 cubic yards of material within the Study Area located in eleven remedial sites totaling 0.675 acres in area. Additional habitat areas within the Study Area would also be impacted to access the remedial sites. The primary habitat areas impacted are previously disturbed and support a ruderal plant community comprised of non-native, invasive plants, several native shrubs, and a few escaped ornamentals. The habitat areas impacted to access the remedial sites would also be ruderal habitat, depending on the access routes selected. Central dune scrub habitat could be impacted if access routes to remedial sites in Area 3 are selected that pass through perimeter areas to the north, south, or east. Central dune scrub habitat along these perimeter areas is degraded but still includes host and food plants for several sensitive invertebrates, potential foraging and cover habitat for special status birds and reptiles, and has a higher potential for supporting rare plants. The one rare plant identified during the site survey, dune ragwort, is not in a remedial site or a location that would be impacted for access to any of the remedial sites. Due to the high level of disturbance, contaminated soils, and the predominance of invasive plant species, impacts to other special status plants that may occur in the site vicinity are not anticipated.

Excavation of the metals-impacted material has the potential to directly impact wildlife species that utilize burrows and/or vegetation occurring on the site. Although no special status wildlife species were detected during the field survey of the site, several have been identified as having the potential to occur on the site that could be impacted by the excavation activities. These include the American badger, burrowing owl, silvery legless lizard, and coast horned lizard. Potential impacts could include direct mortality from excavation machinery or the collapse of burrows. Vegetation removal could result in direct or indirect mortality due to an increased vulnerability to predation. The removal of vegetation could also reduce suitable foraging areas for some species and result in increases in wind blown particulates that may adversely impact other vegetation and habitat areas. It is anticipated that implementation of the project will also result in a temporary increase in traffic on specific areas of the site, and access to and from the site. The additional traffic could result in increased probability of injury and mortality from vehicle strikes to birds, mammals, and reptiles on the site and along access routes.

6.3 Cumulative Impacts

Cumulative impacts are those impacts that result from the additive effects of an action and other past, present, and reasonably foreseeable future actions, regardless of whom the responsible

party is for the project. Cumulative impacts can result from individually minor, but collectively significant actions taking place over a period of time. The remediation of metals-impacted soils will result in minor temporary habitat loss and increases in vehicular traffic but is not expected to result in cumulatively significant impacts. Growth inducing impacts are also not anticipated.

6.4 Recommended Mitigation Measures

The primary potential biological impacts identified for the project involve the loss of ruderal habitat and direct, indirect impacts to animals from excavating equipment and vehicular traffic, and possible habitat modification due to wind erosion. Wind erosion impacts should be minimized by the implementation of BMPs during construction that include measures to minimize wind borne soil transport. A restoration planting plan should be prepared for the site and implemented soon after remediation to stabilize any remaining disturbed soil surface. Monitoring should be conducted to ensure BMPs are functioning properly during construction.

Impacts to central dune scrub habitat, along with potential impacts to associated sensitive wildlife species, would occur if access routes through the community are selected. Such impacts could be minimized or avoided completely through selection of alternate access routes that do not pass through the community. If feasible, avoidance of the central dune scrub community along the northern and eastern perimeter of Area 3 is recommended.

No special status wildlife species were identified within the study area during the field survey, however, several have a potential to occur in the site vicinity based on an analysis of habitat requirements and distribution information. If central dune scrub habitat along the north, south, and east perimeter of Area 3 is avoided then the primary potential impacts to special status species involve the operation of excavating equipment and other vehicles within the Study Area and along access roads. To minimize the potential for impacts to sensitive species we recommend that a qualified biologist be retained to conduct a thorough pre-activity survey of the remediation areas and access routes prior to initiation of remediation activities. Both remediation areas and proposed access routes should be clearly flagged prior to the survey. The biologist conducting the survey should clearly mark (flagging and/or flagged stakes) any potentially sensitive areas such as active dens or burrows that could be occupied by badgers or burrowing owls. If a potential den is located in an area that cannot be avoided then appropriate measures should be taken to determine if the den/burrow is active. Food or host plants for sensitive invertebrate species should also be clearly marked if they are within remediation areas or access routes. The pre-activity survey should also include a general search of each of the three work areas for special status reptiles and birds. A report documenting survey results should be prepared for submission to permitting agencies.

The following BMPs are commonly required with regard to sensitive wildlife species by the San Luis Obispo County Department of Planning and Building:

- A pre-construction briefing should be conducted for all construction workers on potential special status species issues and protection measures to be implemented.
- A maximum 25 mph speed limit should be observed in the work area during construction.
- All construction activities should stop at dusk.
- Food-related trash shall be removed from the project site each day.
- If a sensitive species is discovered at any time in the project area, all construction must stop and the California Department of Fish and Game and USFWS contacted immediately. The appropriate federal and state authorization must be obtained before the project can proceed.

Focused surveys for special status plant and animal species were not conducted during this study. Additionally, survey timing was not optimal for detection of rare annual plants, sensitive animals, and nesting birds. Appropriately timed, focused surveys would assist in determining the potential for the occurrence of some of the plant and animal species identified during the literature search. However, the disturbed condition of habitat within the Study Area greatly reduces the potential for the presence of rare plants and sensitive wildlife species, and therefore potential impacts to special status plants and animals appear to be avoidable. Currently, given the site conditions and circumstances, we are not recommending additional focused surveys for rare plants or special status animals.

7.0 REFERENCES

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Appendix A

Representative Site Photographs Taken March 1, 2012

Figure A-1. Views showing representative habitat in central (top) and southern (bottom) parts of Area 1.

Figure A-2. Views showing representative habitat in central (top) and southern (bottom) parts of Area 2.

Figure A-3. Views showing representative habitat in central (top) and northern (bottom) parts of Area 1.

Appendix B

Special Status Plants and Animals in the Site Vicinity

Table B-1. Rare plant species and plant community types with potential to occur on the project site. (Source: CNDDB 2012, CNPS 2012).

Scientific Name **Common Name**	**Listing Status (Federal/State/ CNPS)**	**Flowering Period**	**Habitat Preferences**	**Potential for Occurrence on Project Site**
Abronia maritima *Red sand verbena*	- / - / 4.2	February-December	Stabilized and semi-stabilized beach sand along the immediate coast and interior dunes.	Low- Not observed during survey. Study Area outside of zone along coast where species occurs.
Agrostis hooveri Hoover's bent grass	- / - /1B.2	April-July	Dry, sandy soils, open chaparral and oak woodlands.	Low- No occurrences in general project vicinity. Not observed during survey. However, the environmental conditions would be suitable to support it.
Aphanisma blitoides Aphanisma	- / - /1B.2	March-June	Occurs in sandy soils in coastal bluff scrub, coastal scrub, and coastal dunes.	Low- not documented in site vicinity. Northern extent of known range is south of Study Area near Point Sal.
Arctostaphylos rudis Sand mesa manzanita	- / - /1B.2	November-February	Sandy soils in chaparral and coastal sage scrub habitat.	None- suitable habitat not present on site. No manzanita found on site.
Arctostaphylos wellsii Well's manzanita	- / - /1B.1	December-May	Sandy soils and sandstone outcrops on stabilized dunes. Occurs in broadleafed upland forest, closed-coneconiferous forest chaparral and open oak woodland.	None- suitable habitat not present on site. No manzanita found on site.
Arenaria paludicola Marsh sandwort	E / E /1B.1	May-August	Perennial herb occurring in freshwater marshes and swamps, bogs or fens. Can occur in coastal scrub habitat.	None- suitable habitat not present on site.
Astragalus didymocarpus var. *milesianus* Mile's milk-vetch	- / - /1B.2	March-June	Annual herb found in coastal scrub; on clay soils; 20-90 m.	None- suitable soils and habitat not present on site.
Atriplex serenana var. *davidsonii* Davidson's saltscale	- / - /1B.2	April-October	Annual herb occurring in alkaline valleys at low elevations, valley grassland, coastal sage scrub.	Low- This species was not observed during the survey. Not known to occur in project vicinity.

Scientific Name **Common Name**	**Listing Status (Federal/State/ CNPS)**	**Flowering Period**	**Habitat Preferences**	**Potential for Occurrence on Project Site**
Castilleja densiflora ssp. *obispoensis* San Luis Obispo owl's-clover	- / - / 1B.2	March-May	Occurs in coastal, valley and foothill grassland habitats.	None- No suitable habitat present.
Chenopodium littoreum Coastal goosefoot	- / - / 1B.2	April-August	Annual herb that forms prostrate mats on sandy soils in coastal dune habitat.	Moderate- Not observed during survey but occurs in project vicinity. Environmental conditions would be suitable to support it.
Cirsium rhothophilum Surf thistle	- / T /1B.2	April-June	Perennial herb found in coastal dunes and coastal bluff scrub; in coastal dunes and in open areas of central dune scrub; 3-60 m.	Low- This species was not observed during the survey. However, the environmental conditions would be suitable to support it.
Cirsium scariosum var. *loncholepis* La Graciosa thistle	E / T /1B.1	April-July	Coastal dunes, brackish marshes, and riparian scrub habitats at lake edges, on riverbanks, or in wetlands.	None- No suitable habitat present.
Clarkia speciosa ssp. *immaculata* Pismo clarkia	E / R /1B.1	May-July	Annual herb found in chaparral, cismontane woodland, valley and foothill grassland; on sandy soils and ancient dunes not far from the coast; 25-185 m.	Low- Occurs on mesa to the east in different plant communities then found in the Study Area. Survey was conducted outside its blooming period.
Deinandra increscens ssp. *foliosa* Leafy tarplant	- / - /1B.2	June-September	Occurs in coastal valley and foothill grasslands	None- No suitable habitat present.
Deinandra increscens ssp. *villosa* Gaviota tarplant	E / E /1B.1	June-September	Perennial herb (rhizomatous) found in coastal scrub and coastal dunes; on sea shores and sand dunes; 3-50 m.	Low- This species was not observed during the survey. Not known to occur in project vicinity.
Delphinium parryi ssp. *blochmaniae* Dune larkspur	- / - /1B.2	March-May	Perennial herb (rhizomatous) found in coastal scrub and coastal dunes; on sea shores and sand dunes; 3-50 m.	Moderate- Not observed during survey but occurs in project vicinity. Environmental conditions would be suitable to support it.
Dithyrea maritima Beach spectaclepod	- / T /1B.1	March-May	Perennial herb (rhizomatous) found in coastal scrub and coastal dunes; on sea shores and sand dunes; 3-50 m.	None- Study Area outside of zone along coast where species occurs. This species was not observed during the survey.

Scientific Name **Common Name**	**Listing Status (Federal/State/ CNPS)**	**Flowering Period**	**Habitat Preferences**	**Potential for Occurrence on Project Site**
Erigeron blochmaniae Blochman's leafy daisy	- / - /1B.2	July-September	Perennial herb that occurs in coastal dunes and coastal scrub habitat in project vicinity.	Moderate- This species was not observed during the survey. Survey was conducted outside its blooming period. Environmental conditions would be suitable to support it.
Erysimum insulare ssp. *suffrutescens* Dune wallflower	- / - /1B.2	March-July	Perennial herb occurring in coastal bluff scrub, coastal dune and coastal scrub.	Moderate- This species was not observed during the survey. Environmental conditions would be suitable to support it.
Juncus acutus ssp. *leopoldii* Southwestern spiny rush	- / - / 4.2	May-June	Rhizomatous perennial herb that occurs in coastal dunes, meadows and alkali seeps, coastal salt marshes, and swamps.	Low- This species was not observed during the survey. Suitable habitat not present
Horkelia cuneata ssp. *puberula* Mesa horkelia	- / - /1B.1	February-September	Occurs in sandy or gravelly soils in cismontane and coastal scrub habitats.	Low This species was not observed during the survey. Not known to occur in project vicinity.
Horkelia cuneata ssp. *sericea* Kellogg's horkelia	- / - /1B.1	April-September	Occurs in sandy or gravelly soils in openings in closed-cone coniferous forest, maritime chaparral and coastal scrub or coastal prairie habitats.	Moderate- Not observed during survey but occurs in project vicinity. Environmental conditions would be suitable to support it.
Lupinus ludovicianus San Luis Obispo County lupine	- / - / 1B.2	April-July	Coastal dunes on open, grassy areas and oak woodlands.	Low- This species was not observed during the survey. Not known to occur in project vicinity.
Lupinus nipomensis Nipomo Mesa lupine	E / E /1B.1	March-May	Central dune scrub habitat in site vicinity.	Low- Documented previously in immediate SMF vicinity but not observed during survey.
Malacothrix incana Dunedelion	- / - / 4.3	January-October	Perennial herd occurring in coastal dunes and coastal scrub habitat	Moderate- This species was not observed during the survey. However, occurs in project vicinity and the environmental conditions would be suitable to support it.

Scientific Name Common Name	Listing Status (Federal/State/ CNPS)	Flowering Period	Habitat Preferences	Potential for Occurrence on Project Site
Monardella crispa Crisp monardella	- / - /1B.2	April-August	Perennial herb found in coastal scrub and coastal dunes; often on borders of open sand areas, adjacent to backdune scrub vegetation.	Moderate- This species was not observed during the survey. However, occurs in project vicinity and the environmental conditions would be suitable to support it.
Monardella frutescens San Luis Obispo monardella	- / - /1B.2	May-September	Perennial herb (rhizomatous) found in coastal scrub and coastal dunes; found on stabilized sand of the immediate coast; 10-100 m.	Moderate- This species was not observed during the survey. However, the environmental conditions would be suitable to support it.
Orobanche parishii ssp. *brachyloba* Short-lobed broomrape	- / - / 4.2	April-August	Perenial herb, parasitic, occurs in coastal bluff scrub and coastal dunes in sandy soil near the ocean.	Low- This species was not observed during the survey. Environmental conditions on site would be suitable to support it.
Pholisma arenarium Pholisma	CSC	April-July, October	Sandy soil in coastal dunes, chaparral, desert.	Moderate- Suitable habitat present within Study Area and site vicinity.
Ribes divaricatum var. *pubiflorum* Straggly gooseberry	CSC	March-May	Coastal bluffs and forest edges. Usually occurs in wetland-riparian communities	Low- No suitable habitat on project site. Not observed during field survey.
Rorippa gambelii Gambel's water cress	E / E /1B.1	April-September	Fresh and brackish water habitats, marshes, streambanks, lake margins	None- No suitable habitat present.
Senecio blochmaniae Dune ragwort	- / - / 4.2	May-October	Sandy soils in coastal dunes	Present- One specimen found within study area within stand of perennial veldt grass.
Scrophularia atrata Black flowered figwort	- / - /1B.2	March-July	Perennial herb found in closed-cone coniferous forest, chaparral, riparian scrub, coastal scrub and coastal dunes; on several soil types including sand.	Low- This species was not observed during the survey. However, the environmental conditions would be suitable to support it.

Community Name			Habitat Description	Potential for Occurrence on Project Site
Central dune scrub			Community dominated by shrubs and small trees, occurring on stabilized sand dunes of the central coast of CA.	Present along the perimeter of Area 3 and to the south, east, and west of the Study Area.
Central maritime chaparral			Community dominated by woody shrubs such as Manzanita and small trees, occurring on stabilized sand dunes within the summer fog zone of the central coast of CA.	Not Present

LISTING STATUS

E = Endangered
T = Threatened
R = Rare

CNDDB ELEMENT RANKING

Global Ranking- The global rank (G-rank) is a reflection of the overall condition of an element throughout its global range.

G1 = Less than 6 viable element occurrences (EOs) OR less than 1,000 individuals OR less than 2,000 acres.
G2 = 6-20 EOs OR 1,000-3,000 individuals OR 2,000-10,000 acres.
G3 = 21-80 EOs OR 3,000-10,000 individuals OR 10,000-50,000 acres.
G4 = Apparently secure; this rank is clearly lower than G3 but factors exist to cause some concern; i.e., there is some threat, or somewhat narrow habitat.
G5 = Population or stand demonstrably secure to ineradicable due to being commonly found in the world.

State Ranking- The state rank (S-rank) is assigned much the same way as the global rank, except state ranks in California often also contain a threat designation attached to the S-rank.

S1 = Less than 6 EOs OR less than 1,000 individuals OR less than 2,000 acres
  S1.1 = very threatened
  S1.2 = threatened
  S1.3 = no current threats known
S2 = 6-20 EOs OR 1,000-3,000 individuals OR 2,000-10,000 acres
  S2.1 = very threatened
  S2.2 = threatened
  S2.3 = no current threats known
S3 = 21-80 EOs or 3,000-10,000 individuals OR 10,000-50,000 acres
  S3.1 = very threatened
  S3.2 = threatened
  S3.3 = no current threats known
S4 = Apparently secure within California; this rank is clearly lower than S3 but factors exist to cause some concern; i.e. there is some threat, or somewhat narrow habitat. NO THREAT RANK.
S5 = Demonstrably secure to ineradicable in California. NO THREAT RANK.

California Native Plant Society designations:

1B Plants rare, threatened or endangered in California and elsewhere.
2 Plants rare, threatened or endangered in California, but more common elsewhere.
3 Plants for which more information is needed – a review list.
4 Plants of a limited distribution – a watch list.

California Native Plant Society threat categories:

1 Seriously endangered in California.
2 Fairly endangered in California.
3 Not very endangered in California.

Table B-2. Special status wildlife species with the potential to occur in the project vicinity.

Common name *Scientific name*	**Listing Status**	**Preferred Habitat**	**Potential for Occurrence on Project Site**
Mammals			
American badger *Taxidea taxus*	CSC	Open grasslands, scrub habitats and, uncultivated pastures.	Moderate- Friable soils, prey base appears to be present, potential den observed.
California mastiff bat *Eumopus perotis californicus*	CSC	Forages in broad open areas including dry desert washes, flood plains, chaparral, oak woodland, open ponderosa pine forest, grassland, and agricultural areas. Roosts in cliffs, rocks and caves	Low- No roosting habitat but may forage in the area.
Pallid bat *Antrozous pallidus*	CSC	Inhabits a wide variety of habitats including grasslands, shrublands, woodlands, and forests. Common in open, dry habitats with rocky areas for roosting	Low- No roosting habitat but may forage in the area.
Townsend's big-eared bat *Corynorhinus townsendii*	CSC	Forages in a variety of habitats including grasslands and riparian woodlands but most commonly associated with desert scrub, mixed conifer forest, and pinon-juniper or pine forest habitat.	Low- No roosting habitat but may forage in the area.
Birds			
Allen's hummingbird *Selasphorus sasin*	BCC	Chaparral, riparian woodlands mixed evergreen, eucalyptus and cypress groves, oak woodlands, and coastal scrub.	Moderate- Foraging and nesting habitat in surrounding dune scrub habitat.
American peregrine falcon *Falco peregrinus anatum*	Delisted, Delisted, FP	Forages in a wide variety of habitats, most common near water, where shorebirds and waterfowl are abundant. Nests on coastal bluffs, offshore rocks, cliffs, buildings, and other manmade structures.	Low- Observed near Santa Maria River mouth: Unlikely to utilize the site.
Black oystercatcher *Haematopus bachmani*	BCC	Offshore rocks, beaches, rocky intertidal habitats, mudflats	Low- No suitable habitat on project site.
Burrowing owl *Athene cunicularia*	CSC	Open grassland, farmland or other level, open ground, with low vegetation and available burrows	Moderate- suitable habitat in site vicinity, abundant burrows and prey base.
California black rail *Laterallus jamaicensis coturniculus*	ST, FP	Salt, fresh, and brackish marshes.	Low- No suitable habitat on project site.

Common name ***Scientific name***	**Listing Status**	**Preferred Habitat**	**Potential for Occurrence on Project Site**
California brown pelican *Pelicanus occidentalis*	Delisted, Delisted, FP	Marine and estuarine habitats, river mouths, offshore rocks and islands.	Low- No suitable habitat on project site.
California clapper rail *Rallus longirostris obsoletus*	FE/SE, FP	Salt and brackish water marshes.	Low- No suitable habitat on project site.
California condor *Gymnogyps californianus*	FE, SE	Arid foothills and mountain ranges, roosting in rocky cliffs or in trees.	Low- potential for occasional occurrence in project vicinity during foraging.
California horned lark *Eremophila alpestris actia*	CSC	Open habitat without trees or bushes; grasslands, fields, and rangeland in coastal regions and the San Joaquin valley to eastern foothills.	Moderate- Potentially suitable habitat present in open areas on site. Suitable rangeland habitat present to the southeast.
California least tern *Sternula antillarum browni*	FE/SE	Nests on isolated beaches near bays and lagoons.	Low- No suitable habitat on project site.
Cooper's hawk (nesting) *Accipiter cooperii*	DFG Watch List	Nests in woodlands, typically riparian, deciduous, or live oak.	Low- Potential occurrence in area but nesting in nearby trees unlikely.
Ferruginous hawk *Buteo regalis*	G4, S3S4	Open, semiarid to arid country with scattered trees or rocky outcrops. May occur along streams or in agricultural areas during migration.	Low- Potential for occasional occurrence in site vicinity. Unlikely to utilize the site.
Least Bell's vireo *Vireo bellii pusillus*	FE/SE	Lowland riparian habitat in vicinity of water or in dry river bottoms, below 2000 ft.	Low- No suitable habitat on project site.
Long-billed curlew *Numenius americanus*	BCC	Coastal beach, mudflat, and marsh habitats, nests in prairie/grasslands.	Low- No suitable habitat on project site.
Marbled godwit *Limosa fedoa*	BCC	Coastal beaches, mudflats, salt marshes, and tidal creeks.	Low- No suitable habitat on project site.
Oak titmouse *Baeolophus inornatus*	BCC DFG- Watch listed	Oak and pine woodlands and forests at low to mid-elevations.	Low- Suitable habitat not present in site vicinity.
Prairie falcon (nesting) *Falco mexicanus*	G5 S3	Barren mountains, dry plains, and prairies.	Low- Potential for occasional occurrence in vicinity. Unlikely to utilize the site.
Red knot *Calidris canutus roselaari*	BCC	Coastal habitats, particularly in areas with extensive sandy intertidal flats or near tidal inlets or mouths of bays and estuaries.	Low- No suitable habitat on project site.
Sharp-shinned hawk (nesting) *Accipiter striatus*	CSC	Nests in extensive woodlands, often coniferous trees but occasionally riparian forests.	Low- Potential occurrence in area but no nesting habitat present on site.

Common name ***Scientific name***	**Listing Status**	**Preferred Habitat**	**Potential for Occurrence on Project Site**
Short billed dowitcher *Limnodromus griseus*	BCC	Tidal marshes, mudflats, ponds.	Low- No suitable habitat on project site.
Southern bald eagle *Haliaeetus leucocephalus leucocephalus*	Delisted, SE, FP	Found near large bodies of water in coastal and inland areas.	Low- Potential for occasional occurrence in vicinity. Unlikely to utilize the site.
Western snowy plover *Charadrius alexandrinus nivosus*	FT, CSC	Coastal beaches, sand spits, dune-backed beaches, sparsely-vegetated dunes, beaches at creek and river mouths, and salt pans at lagoons and estuaries.	Low- No suitable habitat on project site.
Whimbrel *Numenius phaeopus*	BBC	Varied coastal and inland habitats, beaches, mudflats, wetlands, meadows, pastures.	Low- No suitable habitat on project site.
White-tailed kite (nesting) *Elanus leucurus*	FP	Nests in woodlands, forages in open grassland.	Low- Suitable foraging habitat in project vicinity.
Yellow warbler *Dendroica petechia brewsteri*	CSC	Riparian woodland and thickets with willows, cottonwoods, sycamores, and alders for nesting and foraging.	Low- No suitable habitat on project site.
Reptiles			
Coast horned lizard *Phrynosoma blainvillii*	CSC	Various habitats including deserts, chaparral, and grasslands. Often found in open sandy areas with scattered low bushes and native ants for food.	Moderate- Suitable habitat present but no native ants as a food source.
Silvery legless lizard *Anniella pulchra pulchra*	CSC	Various habitats with sandy soils including dune and coastal scrub, chaparral, oak woodland, and riparian habitat. Sandy, moist soils in leaf litter, esp. bush lupine and mock heather.	Moderate- Occurs in site vicinity, suitable habitat present on project site.
Two-striped garter snake *Thamnophis hammondii*	CSC	Freshwater streams and rivers with dense riparian vegetation and rocky or sandy beds.	Low- No suitable habitat on project site.
Western pond turtle *Emys marmorata*	CSC	Ponds, streams, lakes; permanent or semi-permanent water bodies in various habitat types.	Low- No suitable habitat on project site.
Amphibians			
California red-legged frog *Rana draytonii*	FT, CSC	Ponds, streams, and riparian habitats with deep, still, or slow-moving water and dense, shrubby or emergent riparian vegetation.	Low- No suitable habitat on project site.

Common name *Scientific name*	Listing Status	Preferred Habitat	Potential for Occurrence on Project Site
California tiger salamander *Ambystoma californiense*	FT	Upland habitat consists of grasslands with burrows. Ponds and vernal pools used for breeding.	Low- No suitable habitat on project site.
Coast Range newt *Taricha torosa*	CSC	Occurs in and near streams and other permanent water sources, beneath rocks, leaves, and vegetative litter.	Low- No suitable habitat on project site.
Western spadefoot toad *Spea hammondii*	CSC	Open areas with sandy or gravelly soils sandy like washes, lowlands, river floodplains, alluvial fans, playas, alkali flats. Occurs in in a variety of habitats including mixed woodlands, grasslands, coastal sage scrub, chaparral.	Low- No suitable habitat on project site.
Fishes			
Arroyo chub *Gila orcuttii*	CSC	Coastal streams.	None- No stream habitat on project site.
Steelhead South-central California Coast DPS *Oncorhynchus mykiss irideus*	FT, CSC	Coastal streams.	None- No stream habitat on project site.
Tidewater goby *Eucyclogobius newberryi*	FE, CSC	Coastal estuaries and streams.	None- No suitable habitat on project site.
Invertebrates			
Mimic tryonia (California brackishwater snail) *Tryonia imitator*	G2, G3 S2, S3	Coastal lagoons and tidal marshes.	None- No suitable habitat on project site.
Monarch butterfly (roost sites) Danaus plexippus	G5, S3	Wind-protected tree groves.	Identified flying through site but no suitable roosting areas present.
Morro blue butterfly *Plebejus icarioides moroensis*	G5, S1, S3	Inhabits stabilized dune habitat, dune lupine communities.	Moderate- Suitable vegetation present in vicinity and on perimeter of site.
Oso Flaco flightless moth *Areniscythris brachypteris*	G1, S1	Coastal dune habitat within the Santa Maria-Nipomo-Guadalupe Dune system.	Moderate: central dune scrub on perimeter contains host plants.
Oso Flaco patch butterfly *Chlosyne leanira elegans*	G4, G5 S1, S2	Sand dune habitat around Oso Flaco Lake, San Luis Obispo County. Distribution corresponds to its food plant *Castilleja affinis (Indian paintbrush)*.	Low- Food plant *Castilleja affinis* not observed on within Study Area. May occur in central dune scrub habitat outside Study Area.

Common name *Scientific name*	Listing Status	Preferred Habitat	Potential for Occurrence on Project Site
Oso Flaco robber fly *Ablautus schlingeri*	G1, S1	Occurs in sand dunes and other sandy areas in the vicinity of Oso Flaco Lake in the Nipomo-Guadalupe Dunes system in central California.	Low- No recent occurrence information and limited available historical information.
Sandy beach tiger beetle *Cicindela hirticollis gravida*	G5, S1	Sandy areas adjacent to non-brackish water along the coast of California to northern Mexico; inhabits clean, dry, light-colored sand in the upper zone; subterranean larvae found in moist sand not affected by wave action.	None- No suitable habitat on project site.
Vernal pool fairy shrimp *Branchinecta lynchi*	FT	Grassland areas; in vernal pools ranging from small, clear, sandstone rock pools to large, turbid, alkaline, grassland valley floor pools.	None- No suitable habitat on project site.
White sand bear scarab beetle *Lichnanthe albipilosa*	G1, S1	Inhabits coastal sand dunes at Oso Flaco Lake and other dune lakes in San Luis Obispo County. Active April through May.	Low- Unlikely to occur due to distance from suitable lake/stream habitat.

Status Codes:

FE- Federal Endangered (USFWS)
FT- Federal Threatened (USFWS)
FPT- Federal Proposed Threatened
BCC- U.S. Fish and Wildlife Service Birds of Conservation Concern
SE- State Endangered (CDFG)
ST- State Threatened (CDFG)
CSC- California Species of Special Concern (CDFG)
FP- Fully Protected under Section 4700 of the California Fish and Game Code
SA- Special Animal (CDFG)
CH- Critical Habitat present

CNDDB Element Ranks

G1- Global Rank, Less than 6 viable element occurrences (EOs) OR less than 1,000 individuals OR less than 2,000 acres
G5- Global Rank, Population or stand demonstrably secure to ineradicable due to being commonly found in the world
GH- All sites are historical. The element has not been seen in 20 years, but suitable habitat still exists
S1- State Rank, Less than 6 EOs OR less than 1,000 individuals OR less than 2,000 acres
S2- State Rank, 6-20 EOs OR 1,000-3,000 individuals OR 2,000-10,000 acres
S3- State Rank, 21-80 EOs or 3,000-10,000 individuals OR 10,000-50,000 acres
S4- Apparently secure within California
SH- All California sites are historical

APPENDIX C

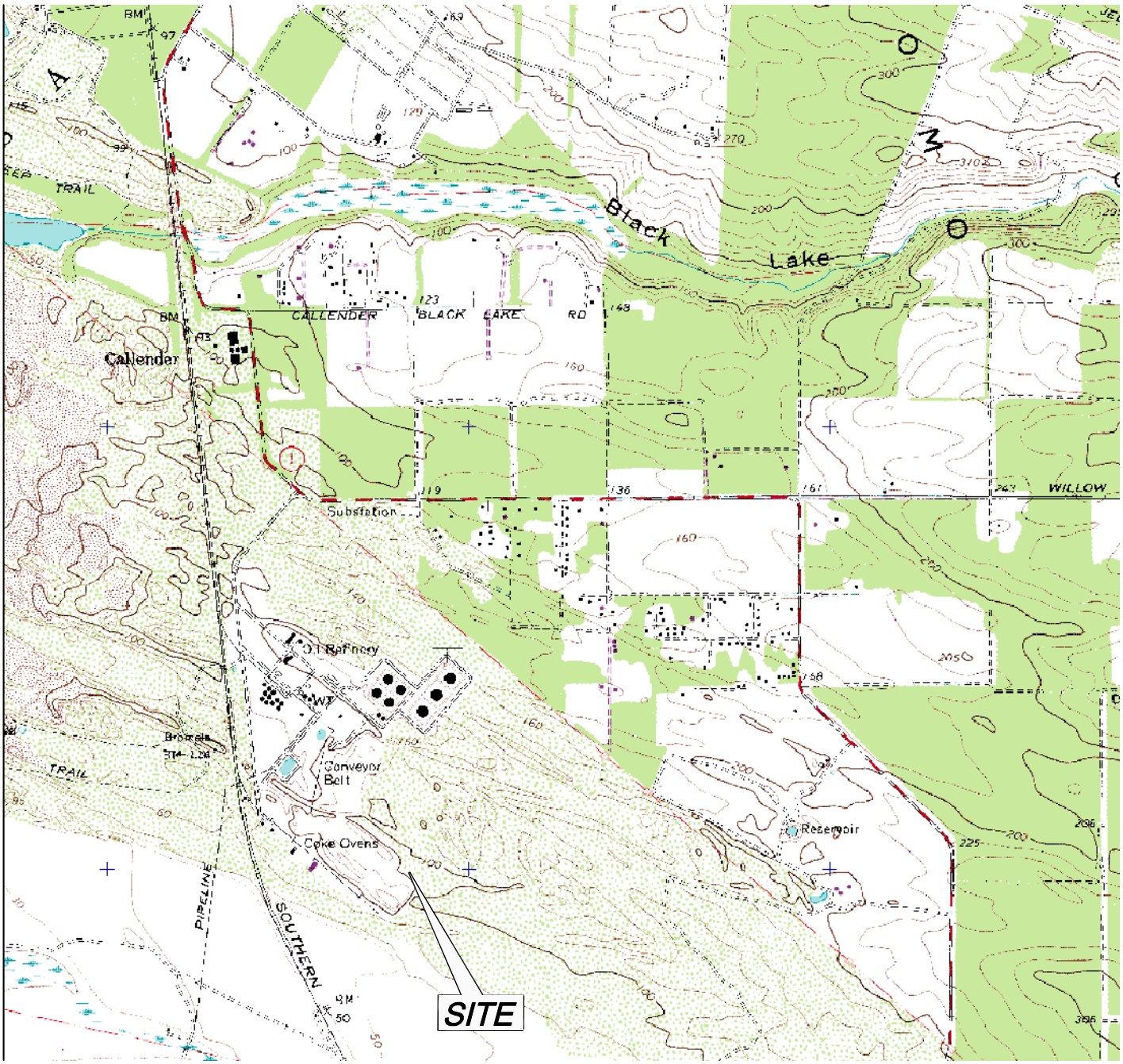
Cultural Resources Records

CONFIDENTIAL INFORMATION

(PROVIDED UPON REQUEST OF AUTHORIZED AGENTS)

APPENDIX D

Contour Site Map



N

(Approximate Scale in Feet)

0 2,000

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FOR: ConocoPhillips
SANTA MARIA FACILITY
2555 WILLOW ROAD
ARROYO GRANDE, CALIFORNIA

VICINITY MAP

FIGURE: 1

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
10CP.06150.01	SCS	KH	KH	11/18/2008

APPENDIX E

Construction Noise Modeling Results

CONSTRUCTION NOISE ANALYSIS
CONOCOPHILLIPS SANTA MARIA FACILITY - INACTIVE COKE PILES REMEDIATION PROJECT

Noise Scenario: Excavation and loading/stockpiling

Receptor: Commercial offices northeast of Santa Maria Facility

Construction Noise Source (Point Source)	Number of Units	Assumed Equipment Use Factor	Maximum Sound Pressure @50 feet (dBA)	Distance to Receptor (Feet)	Point Source Noise Level Attenuation with Distance (dBA)	Ground Attenuation with Distance (dBA)	Total Noise Level Attenuation (dBA)	Noise Level Below Loudest (dBA)	Additive Noise Level (dBA)
Loader	2	0.73	85	3000	50.8	4.7	46.1	3.0	1.68
Excavator	1	0.73	80	3000	43.6	4.7	38.9	10.2	0.39
Truck	2	0.73	88	3000	53.8	4.7	49.1	0.0	3

Total Leq (dBA) at Receptors During Scenario	**51.2**
Assumed Daytime Ambient:	59.2
Assumed Nighttime Ambient Noise Level:	42.0
Number of Daytime Hours Operating	8.0
Number of Evening Hours Operating	0.0
Number of Nighttime Hours Operating	0.0
Estimated Ldn	**57.9**
Estimated CNEL	**57.9**

Ground attenuation estimates assume soft sites, average transmission path of 2 meters above the ground

Data Source: FTA (2006), Transit Noise & Vibration Impact Assessment

Daytime and nighttime ambient nosie levels from Santa Maria Facility Throuput Increase Draft EIR

CONSTRUCTION NOISE ANALYSIS
CONOCOPHILLIPS SANTA MARIA FACILITY - INACTIVE COKE PILES REMEDIATION PROJECT

Noise Scenario: Excavation and loading/stockpiling
Receptor: Fire Station 22 north of Santa Maria Facility

Construction Noise Source (Point Source)	Number of Units	Assumed Equipment Use Factor	Maximum Sound Pressure @50 feet (dBA)	Distance to Receptor (Feet)	Point Source Noise Level Attenuation with Distance (dBA)	Ground Attenuation with Distance (dBA)	Total Noise Level Attenuation (dBA)	Noise Level Below Loudest (dBA)	Additive Noise Level (dBA)
Loader	2	0.73	85	4400	47.5	4.7	42.7	3.0	1.68
Excavator	1	0.73	80	4400	40.3	4.7	35.6	10.2	0.39
Truck	2	0.73	88	4400	50.5	4.7	45.7	0.0	3

Total Leq (dBA) at Receptors During Scenario	**47.8**
Assumed Daytime Ambient:	59.2
Assumed Nighttime Ambient Noise Level:	42.0
Number of Daytime Hours Operating	8.0
Number of Evening Hours Operating	0.0
Number of Nighttime Hours Operating	0.0
Estimated Ldn	**57.8**
Estimated CNEL	**57.8**

Ground attenuation estimates assume soft sites, average transmission path of 2 meters above the ground
Data Source: FTA (2006), Transit Noise & Vibration Impact Assessment
Daytime and nighttime ambient nosie levels from Santa Maria Facility Throuput Increase Draft EIR

CONSTRUCTION NOISE ANALYSIS
CONOCOPHILLIPS SANTA MARIA FACILITY - INACTIVE COKE PILES REMEDIATION PROJECT

Noise Scenario: Excavation and loading/stockpiling
Receptor: Pismo Dunes OHV Area (Recreation)

Construction Noise Source (Point Source)	Number of Units	Assumed Equipment Use Factor	Maximum Sound Pressure @50 feet (dBA)	Distance to Receptor (Feet)	Point Source Noise Level Attenuation with Distance (dBA)	Ground Attenuation with Distance (dBA)	Total Noise Level Attenuation (dBA)	Noise Level Below Loudest (dBA)	Additive Noise Level (dBA)
Loader	2	0.73	85	3000	50.8	4.7	46.1	3.0	1.68
Excavator	1	0.73	80	3000	43.6	4.7	38.9	10.2	0.39
Truck	2	0.73	88	3000	53.8	4.7	49.1	0.0	3

Total Leq (dBA) at Receptors During Scenario	**51.2**
Assumed Daytime Ambient:	43.6
Assumed Nighttime Ambient Noise Level:	48.9
Number of Daytime Hours Operating	8.0
Number of Evening Hours Operating	0.0
Number of Nighttime Hours Operating	0.0
Estimated Ldn	**55.4**
Estimated CNEL	**55.4**

Ground attenuation estimates assume soft sites, average transmission path of 2 meters above the ground
Data Source: FTA (2006), Transit Noise & Vibration Impact Assessment
Daytime and nighttime ambient nosie levels from Santa Maria Facility Throuput Increase Draft EIR

CONSTRUCTION NOISE ANALYSIS
CONOCOPHILLIPS SANTA MARIA FACILITY - INACTIVE COKE PILES REMEDIATION PROJECT

Noise Scenario: Excavation and loading/stockpiling
Receptor: Residences north of Santa Maria Facility

Construction Noise Source (Point Source)	Number of Units	Assumed Equipment Use Factor	Maximum Sound Pressure @50 feet (dBA)	Distance to Receptor (Feet)	Point Source Noise Level Attenuation with Distance (dBA)	Ground Attenuation with Distance (dBA)	Total Noise Level Attenuation (dBA)	Noise Level Below Loudest (dBA)	Additive Noise Level (dBA)
Loader	2	0.73	85	4500	47.3	4.7	42.5	3.0	1.68
Excavator	1	0.73	80	4500	40.1	4.7	35.4	10.2	0.39
Truck	2	0.73	88	4500	50.3	4.7	45.5	0.0	3

Total Leq (dBA) at Receptors During Scenario	**47.6**
Assumed Daytime Ambient:	49.3
Assumed Nighttime Ambient Noise Level:	43.6
Number of Daytime Hours Operating	8.0
Number of Evening Hours Operating	0.0
Number of Nighttime Hours Operating	0.0
Estimated Ldn	**52.0**
Estimated CNEL	**52.0**

Ground attenuation estimates assume soft sites, average transmission path of 2 meters above the ground
Data Source: FTA (2006), Transit Noise & Vibration Impact Assessment
Daytime and nighttime ambient nosie levels from Santa Maria Facility Throuput Increase Draft EIR

Legal Lot Verification

RE: Conoco Phillips Land Use Permit
Throughput Increase Project
Santa Maria Facility

Date: May 29, 2009

APN 092-401-011 is a legal lot because:

1. Created by Deed Prior to Applicable Subdivision Regulation. Attached hereto is that certain Grant Deed recorded January 22, 1954 in Book 742, Page 485 of the Official Records of San Luis Obispo County, California, which deed was found by First American Title Company as the "Creation Deed." According to the County's Subdivision Regulation Matrix, this conveyance pre-dated any applicable subdivision regular for creation of this parcel.

2. Exceeds Minimum Parcel Size Requirements. Furthermore, the large 1,800 +/- parcel size for APN 092-401-011, far exceeds the current minimum parcel size of 10 acres for parcels like this within the industrial land use category in the coastal zone. Therefore, there should be no concerns that the parcel is any way "nonconforming" under even the current subdivision regulations.

3. Prior Permits. Finally, as shown on the County Planning Department's website, numerous permits have been issued to this APN in the past, thereby creating their own basis for legal lot status under Gov't Code 66499.34.

Creation Deed

GRANT DEED

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged, HELEN ROSS, NELLIE L. SANFORD and BRUCE W. ROSS, hereinafter called Grantors, do hereby grant to UNION OIL COMPANY OF CALIFORNIA, a corporation, organized under the laws of the State of California, hereinafter called Grantee, the real property in the County of San Luis Obispo, State of California, described as:

Lots C, F, G, H, I, J, K, L, M, N and O of the Standard Eucalyptus Tract, a division of the Oso Flaco Ranch, part of the Rancho Bolsa de Chemisal and part of Lots 19, 20, 21 and 22 of the Rancho Guadalupe, San Luis Obispo County, surveyed by A. F. Parsons and H. E. Grider, in October 1909, as shown on map of said tract filed in the office of the County Recorder of said County of San Luis Obispo on November 1, 1909, and recorded in Book 1, at Page 12 of maps thereof.

ALSO Lots 1 to 6 inclusive and Lots 9 to 19 inclusive, as the same are laid down and designated on that certain map entitled "Map of the Subdivisions of Lot "B" of the Standard Eucalyptus Tract", as per map on file and of record in the office of the County Recorder of the said County of San Luis Obispo.

EXCEPTING AND RESERVING unto Grantors, their successors or assigns, the right to receive the following described royalty on all oil, gas, and other hydrocarbon substances which may be produced, saved, and sold or removed from the lands hereinabove described if, as, and when the same are so produced and saved and sold or removed from said premises, to-wit:

(a) A sum equal to twelve and one-half per cent (12½%) of the value of all oil produced, saved and sold or removed from the hereinabove described lands, said value being based on the public posted market price in the field for oil of like gravity and quality the day the oil is removed from gauging tanks;

(b) A sum equal to twelve and one-half per cent (12½%) of the net proceeds derived from the sale of gas produced hereunder, after deducting delivery and sale costs, if any, and also twelve and one-half per cent (12½%) of the value at the field market price of any gas used by Grantee in operations other than those conducted on the above described lands, but nothing herein contained shall require Grantee to save or market gas from said lands unless there shall be a surplus above the requirements of operations on said lands and a market at the well for same;

(c) A sum equal to twelve and one-half per cent (12½%) of forty per cent (40%) of all gasoline or other content extracted and saved from gas produced from the above described lands, the remaining sixty per cent (60%) being deemed the reasonable cost of such extraction. The value of such gasoline or other content shall be deemed to be the value of such gasoline or other content at prices currently offered and paid by major purchasers for gasoline and other content of like specifications and quality in the district. If gasoline or other content is extracted by a third party on a basis whereby a royalty is reserved to Grantee, then Grantors shall be entitled to twelve and one-half per cent (12½%) of the value of such reserved royalty, such value of which shall be determined as above provided;

MAR 22 1954

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It is expressly agreed that Grantee by acceptance of said deed shall not assume any obligations whatsoever, express or implied, to explore for or produce oil, gas, or other hydrocarbon substances in or from the above described lands but shall have full discretion to conduct or not to conduct any such operations in whatever manner it shall see fit; provided, however, that in the event a well is drilled on adjacent property and within three hundred and thirty (330) feet of the exterior limits of the above described lands and said well produces oil or gas in paying quantities for thirty (30) consecutive days and a well offsetting same is not already drilled or being drilled on the lands hereinabove described, then in that event Grantee shall within sixty (60) days after completion of said production period of thirty (30) days of said well to be offset, commence drilling operations for a well to offset such producing well and drill the same diligently to the stratum or zone from which oil or gas is being produced from said well to be offset. In the event Grantee shall determine that an offset well cannot be profitably drilled, it shall notify Grantors in writing and make available and surrender to Grantors, if Grantors so request, a drilling site for the drilling of a well to the stratum or zone only from which the well to be offset is being produced.

Grantors shall pay twelve and one-half per cent (12½%) of any and all taxes assessed upon the mineral rights in the lands hereinabove described, together with a proportionate share of all severance, production, and license taxes or other taxes or assessments levied or assessed on account of production of oil, gas, or other hydrocarbon substances on or from the lands hereinabove described. If Grantors shall fail to pay any taxes, assessments, or charges required to be paid by Grantors, Grantee may at its option pay the same and in such event Grantee may reimburse itself for such taxes, assessments or charges so paid by it from any royalties accruing to Grantors hereunder.

GRANTORS FURTHER RESERVE AND RESERVE unto themselves, their successors or assigns, the right to receive a sum equal to two and one-half per cent (2½%) only of the value of all oil, gas, and other hydrocarbon substances which may be produced, saved and removed from any well or wells located on the surface of the above described lands and slant drilled through said lands and under and into other lands, including tide, overflowed, and submerged lands, which sum shall be payable only in money, computed in the same manner, payable at the same times, and subject proportionately to the same charges and deductions as is the royalty payable by Grantee to Grantors hereunder on production from the above described lands.

SUBJECT TO: (1) Conditions, restrictions, reservations, leases, rights, rights of way and easements of record on the date of July 2, 1953.

(2) Taxes for the second half of the fiscal year 1953-1954.

WITNESS our hands this 16th day of January, 1954.

Helen Brown
HELEN BROWN

Nellie L. Crawford
NELLIE L. CRAWFORD

Bruce W Robb
BRUCE W. ROBB

JAN 22 1954

9:56

VOL 742 PAGE 487

State of California } ss.
County of MONTEREY }

On this 18th day of January in the year one thousand nine hundred and Fifty-four before me, HARRY L. NOLAND, a Notary Public in and for the County of Monterey, State of California, residing thereon, duly commissioned and sworn, personally appeared ERNEST W. ROSS & HELEN ROSS known to me to be the person S whose name S ARE subscribed to the within instrument and acknowledged to me that they executed the same.

IN WITNESS WHEREOF I have hereunto set my hand and affixed my official seal in the County of Monterey the day and year in this certificate first above written.

Harry L. Noland

Notary Public in and for the County of Monterey, State of California.

STATE OF CALIFORNIA, } ss.
County of San Luis Obispo }

On this 16th day of January in the year One Thousand Nine Hundred and Fifty-four before me, GAIL COVERT, a Notary Public in and for the County of San Luis Obispo, personally appeared Nellie L. Sanford known to me to be the person whose name is subscribed to the within instrument and acknowledged to me that She executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Official Seal at my office in the County of San Luis Obispo, the day and year in this certificate first above written.

Gail Covert

(SEAL)

MY COMMISSION EXPIRES JULY 18, 1954 NOTARY PUBLIC IN AND FOR THE COUNTY OF SAN LUIS OBISPO, STATE OF CALIFORNIA

998

RECORDED AT REQUEST OF SECURITY TITLE INSURANCE COMPANY
AT 52 MIN. PAST 3 10 P.M.
VOL 2008 Official Records p. 487
SAN LUIS OBISPO COUNTY, CALIF.

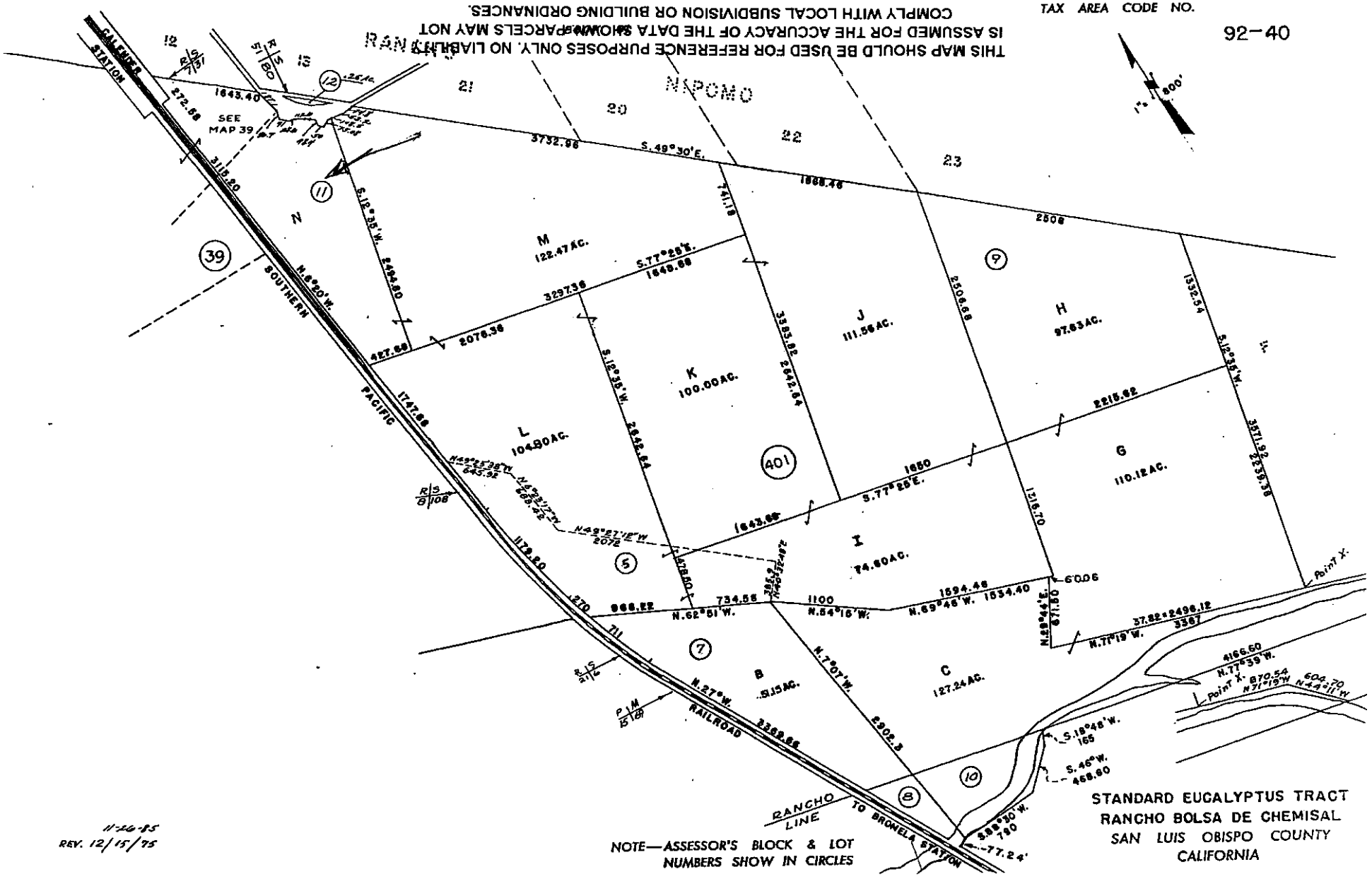
JAN 22 1954

W. L. Ramage
County Recorder

Fee $ 3.50 Initialed

TAX AREA CODE NO.

92-40



STANDARD EUCALYPTUS TRACT
RANCHO BOLSA DE CHEMISAL
SAN LUIS OBISPO COUNTY
CALIFORNIA

NOTE—ASSESSOR'S BLOCK & LOT NUMBERS SHOW IN CIRCLES

11-26-85
REV. 12/15/95

CONOCOPHILLIPS SANTA MARIA FACILITY PROCEDURES MANUAL					
SMF 9.10.2: Emergency Preparedness Procedures			SMF 9.10.2.7: Fire Prevention Plan		
Issue Date: 2/3/09	Rev. # 1.6	Rev. Cyl: 3 yrs	Ret. Code: HSE170	Doc. Owner: HSE Dept.	Page: 1 of 5

I. PURPOSE AND SCOPE

A. Activities

This procedure outlines various methods and equipment used in the facility to prevent fires. It applies to the entire facility.

B. Exclusions

None

II. ROLES AND RESPONSIBILITIES

The Health, Safety, and Environment (HSE) Department is responsible to review, modify and provide guidance and interpretation regarding this policy. It is the responsibility of each employee to learn fire prevention methods and equipment that pertains to their individual duties.

III. DISCUSSION

Fires are one of the most common incidents that occur within our business. The pumping, storing, heating and handling of the hydrocarbon materials are accompanied by the always-present fire hazard. Some common causes of fires in our business are electrical storms, equipment malfunctions, open flames, sparks, hot surfaces and smoking. However, with proper maintenance and continuing compliance to our facility's loss control policies and procedures, these risks are minimized or eliminated altogether.

IV. SPECIAL MATERIALS/EQUIPMENT

None

V. LOSS EXPOSURES – HSE

Injury, illness, property damage and environmental incidents can result from failure to understand and utilize fire prevention methods and equipment.

VI. LOSS EXPOSURE – QUALITY

Property damage and environmental incidents can result from failure to understand and utilize fire prevention methods and equipment.

VII. GENERAL REQUIREMENTS

A. Training

Prior to beginning work, employees and contractors are trained on the fire hazards of materials and the processes that they may be exposed to while working at the Santa Maria Facility.

1. New employees receive training on facility HSE policies and procedures, followed by the department-specific orientation which covers the employee's job responsibilities, emergency procedures, tour

of the facility, an overview of "Visitor Handbook" (potential fire hazards, toxic releases, hazardous waste and entry into process areas), etc.

2. Emergency response personnel receive extensive training throughout the year on a variety of topics, including fire fighting, hazardous materials releases, and first aid/CPR. Non-operations personnel and full-time contractors receive training in hazard recognition and reporting through the Annual Safety Training Course that includes HazMat First Responder Awareness Level, portable extinguishers, small diameter hose (for incipient fires only) and basic Incident Command System training.

3. Contractors are required to complete a facility Process Safety Management orientation prior to beginning work which includes an overview of the facility and the hazards associated with the areas they will be working in or around. At a minimum employees and contractors are required to complete annual Hazardous Materials First Responder Awareness Level training to reinforce the knowledge of hazard recognition and proper response. This training is documented and recorded.

VIII. PROCEDURE

A. Potential fire hazards

1. Potential fire hazards must be controlled at all times throughout the facility. The facility's HSE policies and procedures, along with department-specific procedures provide control guidelines for the various tasks that are performed in the facility where fire hazards may be present. Examples of handling and storage procedures/practices are:

a) Operating Process Areas – Oil sampling procedures are specifically written (e.g., sampling D-103, sampling D-63) to safely perform the task. Equipment is designed to eliminate or minimize the potential for spillage or leakage (Management of Change procedure). All processing and storage equipment is constructed and routinely inspected to minimize the likelihood of serious mechanical failure (Mechanical Integrity Program). Housekeeping procedures require that processing areas remain free of hydrocarbon material, dirt and debris. Oil spills due to minor mechanical failure or human error are immediately cleaned up to prevent potential risk of fire.

b) Maintenance Shops – Small quantities of solvents, lubricants, paints, etc., used within the shops are properly stored in flammable

liquid storage cabinets. Larger quantities of lubricants and solvents are stored in designated storage areas. Proper use of lubricants and solvents is covered in the job specific task procedures within the Maintenance Department.

c) Warehouse Storage – The warehouse does not store flammable or combustible liquids within the building. All combustible material is stored outside the building in a designated area. Flammable material that is received is moved to the specific use location for proper storage, e.g., paint would be moved to the paint shop.

d) Office Buildings – Office buildings are designed and constructed to minimize fire hazards. All buildings are included in the Physical Conditions Inspection Program to help ensure that fire hazards are eliminated. Smoking areas outside of buildings are properly maintained to remove combustible material from the area.

B. Potential ignition sources

Potential ignition sources such as welding/open flame hot work are controlled through the Work Request/Work Order and Hot Work Permit procedures. These procedures require that all parties involved in the job understand the scope of the work to be performed, the hazards associated with the job and how they are to be controlled. Smoking and smoking accessories (matches, lighters, etc.) are strictly controlled throughout the facility. Smoking is PROHIBITED inside the facility except in pre-approved "AUTHORIZED SMOKING AREAS."

C. Fire protection equipment/systems

A wide variety of fire protection equipment is available within the facility. Fire Water pumps 515-3 and 515-4 provide fire water for the facility. Fire extinguishers are located throughout the facility and smoke detectors are located in all occupied buildings. Within the operating units are combustible vapor sensors to detect vapors before they reach their flash point. Fixed systems include water deluge systems (vacuum section and pump row), fire monitors, hose reels and foam chambers. Mobile equipment (Engine One, Foam Tender One, Attack One, and Rescue One, Terminator) as well as additional resources summoned from outside sources may be utilized to handle a major fire.

D. Maintenance of equipment

The Safety & Emergency Response (S&ER) Supervisor is responsible for the inspection and maintenance program on all fire prevention/protection equipment (including fixed and mobile equipment) and emergency procedures. This includes detailed audit programs such as Operations

daily/weekly kardex to inspect fire prevention/protection equipment. Facility procedures (Emergency Response Plan, S&ER and Operations Departments' kardex and the Maintenance Department's Preventative Maintenance and Reliability Programs) help to ensure the prevention of equipment failure through required inspection, testing and repair of equipment before it fails.

E. Flammable materials/housekeeping

All employees and contractors are responsible for the control of accumulation of flammable or combustible waste material. For example, the Operations Department accomplishes this by picking up and/or washing down all materials that are the result of work activities or minor spills. Hazardous material that is picked up is disposed of in hazardous waste satellite stations, which are managed by the Maintenance Department.

All employees and contractors are responsible for housekeeping throughout the facility. This is accomplished through programs such as Operations housekeeping procedures and the Physical Conditions Inspection Program which require employees to inspect areas to identify housekeeping problems so that they may be corrected. In addition, the Operations and Maintenance departments have assigned clean-up areas where specific persons/crews are responsible for keeping their area in a clean and orderly condition

F. Maintenance

Periodic review of the facility programs is essential to ensure that fire hazard control measures are in place, effective and properly maintained. This is accomplished by performing an annual review of loss control and department-specific procedures, and by completing an annual assessment of the facility's Process Safety Management (Cal-OSHA, 5189) program, e.g., Mechanical Integrity Program, developed to ensure that process equipment integrity is maintained.

IX. DEVIATION

None

X. DEFINITIONS AND ACRONYMS

None

XI. REFERENCES

Title 8, Division 1, Chapter 4, Subchapter 7, Subchapter 7, Group/part 16, Article 109, Section 5189: Process Safety Management of Acutely Hazardous Materials.

XII. RECORDS

None

XIII. ATTACHMENTS

None

XIV. REVISION HISTORY

Recent minor and major revisions are documented below.			
Rev. #	**DATE**	**DESCRIPTION**	**BY**
1.6	1/29/09	Annual review. Minor changes.	LHS
1.5	1/17/06	New DRM format	GAP
1.4	11/23/04	Changed from Document #: LCM 4-03	AV
1.3	9/30/04	Annual review	GAP
1.2	02/11/03	Annual review – no changes required.	DGU
1.1	10/04/01	Annual review – no changes required.	DHB