Hi Ann,

Sorry I am just getting back to you on this but I have been in the field a lot lately. My replies to your questions are in your text below, in blue.

Thanks,

Rick

Rick Crowe
OGS Designated Biologist
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From: Ann Crisp [mailto:ACrisp@energy.state.ca.us]
Sent: Thursday, July 22, 2010 1:07 PM
To: Crowe, Richard/SAC
Cc: Davy, Doug/SAC; Felicia Miller; Rick York
Subject: RE: Oakley Power Plant

Hi Rick,

I have a couple questions in re: tree removal at the Oakley GS project site. During the site visit you mentioned that the tree survey results as well as the details on the removal of the 6 interior live oak from the project site would be included in an "arborist report" and submitted with the HCP application package. The trees are covered under the City of Oakley municipal code and would potentially be replaced on a 3:1 ratio or via in-lieu fees. Has the City provided any guidance on what they propose as mitigation for tree removal and any fees that will be required? Not yet, when I have the arborist work on the report that will be one of his objectives; to propose mitigation in a dollar amount and to propose mitigation ratios.

Would it be possible to see the arborist report prior to the HCP application package so I can see what your approach is to implementing the LORS for the City via the HCP? I have attached the tree survey technical memo. I'd also like to see the updated survey results that document that 6 trees are being removed instead of 4. This is included in the attached memo. In addition, I was wondering about the connection to the HCP application. Did the City of Oakley request the arborist report be submitted as part of the HCP application? Our HCP contact stated that we would need an arborist report however, we did not submit it as part of the Draft application because it was not specifically called for. They may require it when we submit the final application.

Feel free to give me a call as well.

Thanks!

Ann

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>>> <Richard.Crowe@CH2M.com> 6/14/2010 7:47 AM >>>

Hi Ann,

I really enjoyed meeting you on the site visit on Thursday and look forward to working with you on this project. I have attached the Oakley tree preservation code and the tree portion begins on page 77. Let me know if you need anything else.

Rick

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From: Ann Crisp [mailto:ACrisp@energy.state.ca.us]
Sent: Friday, June 11, 2010 10:12 AM
To: Davy, Doug/SAC
Cc: Crowe, Richard/SAC; Rick York
Subject: Oakley Power Plant

Hi Doug,

Thanks again for the tour of the site and various power plants yesterday. I will look out for the Wetland E Management Plan and the ECCC HCP document in the near future. Could you please send me a copy of the

Landscape Plan when it is available?

Thanks!

Ann

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Tree Survey Results
Oakley Generating Station

PREPARED FOR: Radback Energy

PREPARED BY: Rick Crowe/CH2M HILL
Staff Biologist

COPIES: Keith McGregor/CH2M HILL
Doug Davy/CH2M HILL

DATE: March 3, 2010

Introduction

An Oakley Protected Tree Removal Application must be submitted to the City of Oakley Director of Community Development (Director) for any "protected trees" that would be impacted by a project. A "Protected Tree" is one that is located within the City of Oakley and meets the following criteria (City of Oakley Municipal Code. 9.1.1114 (2006):

- Where the tree to be cut down, destroyed or trimmed by topping is adjacent to or part of a riparian, foothill woodland or oak savanna area
- Is part of a stand of four or more trees, measures twenty inches or larger in circumference (approximately 6.5 inches in diameter) as measured four and one-half feet from ground level, or multi-stemmed tree with the sum of the circumferences measuring forty inches or larger, measured four and one-half feet from ground level
- Is one of the following list of indigenous trees:
  - *Acer macrophyllum* (Bigleaf Maple)
  - *Acer negundo* (Box Elder)
  - *Aesculus californica* (California Buckeye)
  - *Alnus rhombifolia* (White Alder)
  - *Arbutus menziesii* (Madrone)
  - *Heteromeles arbutifolia* (Toyon)
  - *Juglans hindsii* (California Black Walnut)
  - *Juniperus californica* (California Juniper)
  - *Lithocarpus densiflora* (Tanoak or Tanbark Oak)
  - *Pinus attenuata* (Knobcone Pine)
  - *Pinus sabiniana* (Gray Pine)
  - *Platanus racemosa* (California Sycamore)
  - *Populus fremontii* (Fremont Cottonwood)
  - *Populus trichocarpa* (Black Cottonwood)

- *Quercus agrifolia* (California or Coast Live Oak)
- *Quercus chrysolepis* (Canyon Live Oak)
- *Quercus douglasii* (Blue Oak)
- *Quercus kelloggii* (California Black Oak)
- *Quercus lobata* (Valley Oak)
- *Quercus wislizenii* (Interior Live Oak)
- *Umbellularia californica* (California Bay or Laurel).

Therefore, in order to meet the Oakley Municipal code requirements to survey protected trees impacted by the project, CH2M HILL Staff Biologist Richard Crowe conducted a tree survey on the proposed Oakley Generating Station project site and the associated transmission line corridor on February 17th, 2010. The surveys were also conducted to meet the requirements outlined in the East Contra Costa County Habitat Conservation Plan and Natural Community Conservation Plan (East Contra Costa County HCP/NCCP).

Methodology

The tree survey results for the 21.95 acre project site were based on the assumption that all of the trees would be removed within the project footprint with the exception of the line of eucalyptus trees bordering the northeastern portion of the site, and the trees within the Wetland E easement area. Based on the discussion in Section 5.2 of the AFC, this area of eucalyptus trees and the Wetland E easement make up 2.74 acres of the 21.95 acre parcel.

It was assumed there would be no trees removed from the construction laydown area or the three soil stockpile areas. Therefore, a tree survey has not been conducted at these locations.

The tree survey results for the transmission line upgrade route were based on the following assumptions:

- Seventeen of the 18 lattice towers that now exist will be removed
- The tower within Wetland E or a portion of it will remain as a perch for raptors and song birds
- The 17 replacement monopole towers will be placed so that no additional trees will be impacted.
- The disturbance footprint will be limited to 1 acre at each lattice tower for removal of the existing tower.
- That there will not be a need to grade between each tower for access. Existing access is easily attained by surface streets, dirt roads, or bike paths.
- That the entire lattice tower including cement footings will be removed.

Each tree to be removed within the proposed Oakley Generating Station project site proper and each tree within the proposed transmission line upgrade corridor was inventoried and the following data taken:

- Species
- Diameter at breast height (dbh) as measured at 4.5 feet above ground.

- Height
- Overall health
- Photo

In addition, each tree was assigned a unique number so that it could be readily identified in the future. Representative photos are included in Attachment A.

Results

Oakley Generating Station Project Site

A total of 12 trees were indentified to be removed within the Oakley Generating Station project site. Six of the 12 trees indentified (Interior live oak) are protected under the Oakley Municipal Code. Therefore, if a permit is granted, the Director may attach conditions to the permit to insure compliance with the Oakley Tree Preservation statute and Oakley Municipal Code. These conditions may include a requirement to replace any or all trees on a 3:1 ratio of either size or quantity or pay in-lieu on a per inch basis. The City of Oakley (City) was contacted on March 3, 2010, to inquire what the pay in-lieu fee schedule would be for the Oakley Generating Station. The City confirmed that there is no established fee schedule and that the pay in-lieu fee schedule is determined on a project by project basis by a certified arborist for each tree impacted. Therefore, a fee estimate was unavailable from the City at this time. However, based on previous project experience in Contra Costa County, this fee has been in the range of $4,000 to $5,000 per tree removed.

Table 1 has a complete breakdown of the trees identified for removal within the project site.

TABLE 1
Trees Identified for Removal Within the Project Site

Tree Number	Species	DBH	Height	Health	Site Location	Habitat
1	Almond	Multi stemmed 24.2”	17’	Healthy	Air cooled condenser (ACC)	Vineyard
2	Interior Live Oak	18.8”	24’	Healthy	ACC	Vineyard
3	Interior Live Oak	19.”	22’	Healthy	ACC	Vineyard
4	Interior Live Oak	17.4”	23’	Healthy	ACC	Vineyard
5	Interior Live Oak	19.6”	27’	Healthy	ACC	Vineyard
6	Interior Live Oak	16.6”	26’	Healthy	ACC	Vineyard
7	Interior Live Oak	16.5”	26’	Healthy	ACC	Vineyard
8	Almond	Multi stemmed 9.6”	13’	Healthy	Main access road	Ruderal
9	Almond	Multi stemmed 9.3”	13’	Unhealthy, numerous dead branches	Main access road	Ruderal
10	Almond	Multi stemmed 6.5”	12’	Healthy	Main access road	Ruderal

TABLE 1
Trees Identified for Removal Within the Project Site

Tree Number	Species	DBH	Height	Health	Site Location	Habitat
1	Almond	Multi stemmed 24.2"	17'	Healthy	Air cooled condenser (ACC)	Vineyard
2	Interior Live Oak	18.8"	24'	Healthy	ACC	Vineyard
3	Interior Live Oak	19."	22'	Healthy	ACC	Vineyard
11	Almond	Multi stemmed 8.5"	12'	Healthy	Main access road	Ruderal
12	Almond	Multi stemmed 17.2"	14'	Healthy	Main access road	Ruderal

Transmission Line Route

Six trees were indentified to be removed from the Oakley Generating Station transmission line upgrade route. Two of the 6 trees indentified (Interior live oak) are protected under the Oakley Municipal Code. Table 2 has a complete breakdown of the trees identified for removal along the transmission line route by tree.

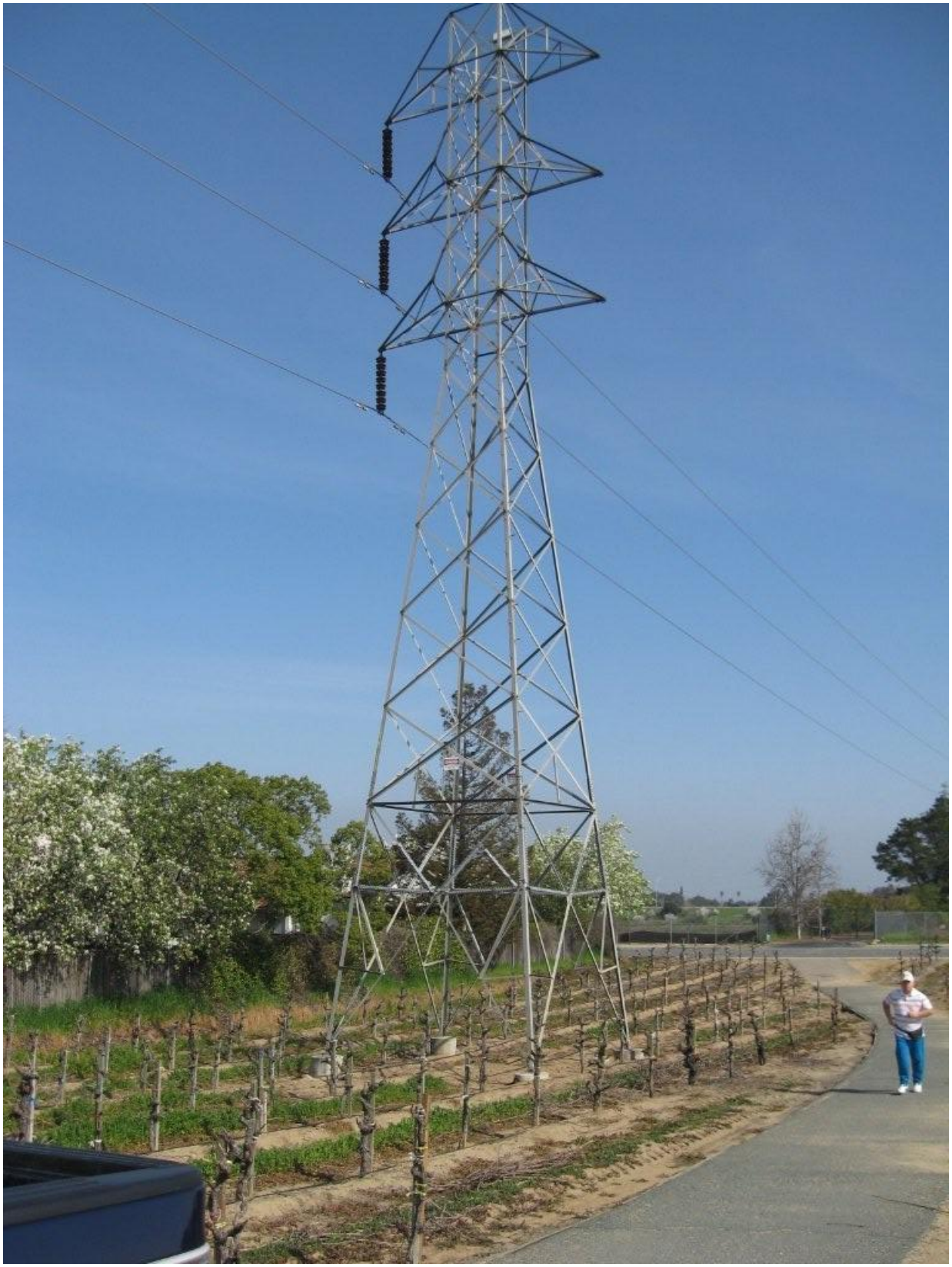
TABLE 2
Trees Identified for Removal Along the Transmission Line Route

Tree Number	Species	DBH	Height	Health	Site Location	Habitat
13	Ponderosa pine	15.7"	22'	Healthy	Tower #7	Vineyard
14	Almond	Multi stemmed 33.2"	14'	Healthy	Tower #7	Vineyard
15	Almond	Multi stemmed 25.4"	21'	Healthy	Tower #14	Vineyard
16	Interior live oak	Multi stemmed 23"	21	Healthy	Tower #16	Ruderal remnant orchard
17	Almond	Multi stemmed 6.3"	7'	Healthy	Tower #17	Ruderal remnant orchard
18	Interior live oak	Multi stemmed 3.2"	6'	Unhealthy over half of branches dead	Tower #17	Ruderal remnant orchard

Attachment A
Representative Photos of Tree Inventory

Photo of 3 of the 6 Interior Live Oaks to be removed in ACC area, 2/17/10.

Almond trees to be removed along future project access road, 2/17/10.



Tower #11, showing typical vineyard setting, 2/17/10.

Tower #7 with Ponderosa Pine and Almond tree that will be removed, 2/17/10

Tower #16 with Interior Live Oak to be removed, 2/17/10