



**Carmen-Smith Hydroelectric Project (FERC No. 2242)**

**Transmission Line Management Plan**

**May 2020**

**Eugene Water & Electric Board**

Suggested citation:

Eugene Water & Electric Board. 2019. Transmission Line Management Plan for the Carmen-Smith Hydroelectric Project (FERC No. 2242).

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## **1 INTRODUCTION**

The Eugene Water & Electric Board (EWEB) owns and operates the Carmen-Smith Hydroelectric Project (Project) under license No. 2242 from the Federal Energy Regulatory Commission (FERC). The Project is located on the upper McKenzie River in Linn and Lane Counties, Oregon. EWEB has developed this Transmission Line Management Plan (TLMP) to guide the management of the transmission line corridor and address transmission line-related issues at the Project during the term of the New License for the Project, as required under Article 22 of the Settlement Agreement (EWEB 2016).

### **1.1 Plan Area**

This TLMP Plan Area covers all lands within the Project's Carmen-Cougar transmission line corridor (Figure 1), most (60%) of which is on National Forest System (NFS) land, with the remainder (40%) on private land. The upper 11 km (7 mi) of the transmission line are generally oriented north to south. The lower 19 km (12 mi) are oriented east to west on generally south-facing slopes and rolling terrain. The easement for the 31-km (19-mi) transmission corridor is 21 m (70 ft) wide, and generally parallels Highway 126 and the McKenzie River from Trail Bridge Reservoir to the South Fork McKenzie and the Cougar-EWEB Tap (Cougar Tap). Except for a short section along Deer Creek, the transmission corridor runs down the McKenzie River valley. A 1-mi, 11.5-kV distribution line transmits output from the Trail Bridge Power Plant to the Carmen Substation. A 31-km (19-mi), 115-kV transmission line connects the Carmen Substation to the Bonneville Power Administration (BPA) Cougar-Eugene 115-kV transmission line at the Cougar Tap located near Cougar Dam. From the Cougar Tap, power is wheeled to Eugene on the BPA transmission line. In accordance with section 4.5 of the Wildlife Management Plan, existing easements along the National Forest System (NFS) portions of the transmission line will be widened to provide for habitat development. EWEB will attempt to obtain similarly expanded easements along private portions of the transmission corridor through the use of conservation easements.

### **1.2 Objectives**

The objective of this plan is to provide an integrative approach to management of the Plan Area by doing the following:

- Integrating existing Resource Management Plans (RMPs), including Vegetation; Wildlife; Recreation and Aesthetics; Roads, Waste Areas, and Staging Areas; and Historic Properties into a management blueprint for operations staff and stakeholders. The Transmission Line Management Plan Work Group will contain members of the Vegetation Management Plan Work Group as well as any other Settlement Party representatives who have an interest in the implementation of the Transmission Line Management Plan.
- Utilizing robust GIS layers as a map-based, visual tool for EWEB and stakeholders.
- Creating an Operations Guide for EWEB employees, to ensure that all essential guidelines for protection of resources (e.g., special status-plants and wildlife) are followed.

The goals for each of the treatment plans (i.e., plans nested within the RMPs that are focused on a specific task such as noxious weed removal or wildlife reporting) are described within the management plans mentioned above. In order to ensure integrative management and effective communication amongst all stakeholders, EWEB will draw from the various management plans and treatment plans to prioritize and execute management activities along the transmission line corridor.

## 2 INTEGRATED MANAGEMENT

For the purpose of this TLMP, the Carmen-Cougar transmission line corridor is broken into sections that represent areas of similar habitat (e.g., plant composition, slope, and aspect) such that treatment options for each section can be developed. Table 1 provides general information about each of these sections based on early survey data. Surveys to be updated in 2021. Figure 1 provides a visual of these sections and the overall Plan Area.

Table 1. Sections of the Carmen-Cougar transmission line as currently defined in this TLMP (northeast to southwest).

Section number	Tower span	Ownership	Notes
1	T1–T4	Public	Between Trail Bridge and Highway. Mostly dry/mesic with a few wet areas. Highly disturbed, especially between Towers 2 and 3.
2	T4–T6	Public	Between Trail Bridge and Highway.
3	T6–T7	Public	Steep section.
4	T7–T16	Public	<i>Pteridium aquilinum</i> dominant with occasional <i>Cytisus scoparius</i> .
5	T16–T17	Public	Steep section.
6	T17–T18.75	Public	Riparian corridor/creek crossing.
7	T18.75–T20	Public	Infested with <i>Cytisus scoparius</i> ; adjacent area thinned by USDA Forest Service.
8	T20–T20.25	Public	Small section with <i>Arctostaphylos</i> spp. and <i>Acer circinatum</i> .
9	T20.25–T21	Public	Steep section; riparian corridor that crosses Deer Creek.
10	T21–T23	Public	Adjacent to riparian corridor; dominated by <i>Pteridium aquilinum</i> .
11	T23–T28.25	Public	Deer Creek/transmission line relocation area.
12	T28.25–T31.25	Public	Mix of flatter areas with weed infestations and steeper areas.
13	T31.25–T35.5	Public	Secluded area with few weeds; dominated by <i>Pteridium aquilinum</i> .
14	T35.5–T36	Public	Frissel Creek crossing/riparian corridor.
15	T36–T40	Public	Near McKenzie River; dominated by <i>Pteridium aquilinum</i> .
16	T40–T43	Public	McKenzie River crossing/riparian corridor; dispersed recreation site at T42.
17	T43–T50	Public	Adjacent to Peggy Creek Road; infested with <i>Cytisus scoparius</i> .
18	T50–T51	Public	Steep section.
19	T51–T54.5	Public	Some <i>Cytisus scoparius</i> present.

<b>Section number</b>	<b>Tower span</b>	<b>Ownership</b>	<b>Notes</b>
20	T54.5–T54.75	Public	Wetland #11, as identified in <i>Vegetation and Wetland Mapping and Characterization</i> (Stillwater Sciences 2006)
21	T54.75–T56	Public	Area dominated by mix of grasses, <i>Pteridium aquilinum</i> , <i>Corylus cornuta</i> , and <i>Pseudotsuga menziesii</i> .
22	T56–T57.8	Public	Steep section.
23	T57.8–T70.5	Private	N/A.
24	T70.5–T72	Public	Riparian zone.
25	T72–T74	Public	Dominated by mix of grasses and <i>Pteridium aquilinum</i> .
26	T74–T75.75	Public	Mesic area riparian zone cutting through; <i>Cytisus scoparius</i> throughout.
27	T75.75–T86	Private	N/A.
28	T86–T88	Public	Undulating, with tributaries cutting through; portions dominated by <i>Cytisus scoparius</i> .
29	T88–T93.75	Private	N/A.
30	T93.75–T97.75	Public	<i>Corylus cornuta</i> and <i>Pteridium aquilinum</i> prevalent.
31	T97.75–T98	Public	Steep section with moderate amounts of <i>Cytisus scoparius</i> .
32	T98–T100	Public	Undulating with riparian corridor cutting through.
33	T100–T106	Public	Some <i>Cytisus scoparius</i> and cultural species present.
34	T106–T107.66	Public	Very steep, with <i>Cytisus scoparius</i> infestation.
35	T107.66–T113.3	Public	Mesic with occasional tributary crossings; area dominated by <i>Pteridium aquilinum</i> and adjacent to USDA Forest Service thinning area.
36	T113.3–T130	Private	N/A.
37	T130–T130.5	Public	Rainbow Marsh (Wetland #4; see <i>Vegetation and Wetland Mapping and Characterization</i> [Stillwater Sciences 2006]).
38	T130.5–T132.5	Public	Flat, mesic site that is heavily infested with <i>Cytisus scoparius</i> .
39	T132.5–T133	Private	McKenzie River crossing/riparian corridor.
40	T133–T136	Private	Wetland area.
41	T136–T144	Private	N/A.

Each transmission line section is targeted for activities such as weed treatment and culturally significant species enhancement. At the annual Vegetation Management Plan Work Group meeting, EWEB will present an overview of treatment, describing the previous year’s activities and focusing on the priorities for the upcoming years.

The boundaries and notes for the transmission line sections above (Table 1) will be annually reviewed and revised as needed, in consultation with the Vegetation Work Group.

## **2.1 Management Techniques**

In 2010, EWEB established the practice of hand management of the entire Carmen-Cougar transmission corridor. This process involves the removal of invasive non-native species, as well as native species that have the likelihood of growing too tall for ANSI compliance standards. The methodology will be to sweep the targeted properties, removing weeds and any other unwanted vegetation and identifying appropriate re-seeding or re-planting needs. In some cases, planting/seeding will occur along with vegetation control and eradication work. In other cases re-vegetation will be identified and scheduled for following seasons to allow time to evaluate the levels of natural regeneration by remnant native species and seeds “released” by the removal of weed populations. Vegetation control will initially focus on manual/mechanical removal. Subsequent monitoring will determine the need for additional weed management approaches based on the Integrated Vegetation Management (IVM) decision process as described in the Weed Treatment and Revegetation Plan. All areas will be revegetated with native plants with an emphasis on Culturally Significant species.

## **2.2 Erosion Control**

By implementing the use of manual management along the transmission corridor, the likelihood of increased erosion is minimized. Most of the areas controlled will experience decreased erosion as appropriate native species are allowed to dominate the site. In any case where disturbance causes increased erosion potential, EWEB will follow standard erosion control methods such as waddles, bioberms, jute netting, or other methods as appropriate.

## **3 OPERATIONS GUIDE**

A Transmission Line Operations Guide (Appendix A) provides guidance to EWEB crews who perform operations and maintenance (O&M) (e.g., brush clearing, hazard tree removal, pole and line replacement) as well as emergency response (e.g., downed power line or hazard tree). The guide describes procedures to protect the resources that are outlined in the historic properties, wildlife, and vegetation management plans. The guide identifies three different management zones, which differ by level of resource protection. O&M crews will use an EWEB GIS database (described in the next section) to determine the management zone that is applicable to a specific project. The crew will then use the Operations Guide to follow procedural protocols specific to that management zone. For instance, if a crew will be working in a section of the transmission line corridor where there is a known occurrence of a special-status plant species, the crew will use the Operation Guide to follow a specific set of procedures.

## **4 GIS DATABASE**

### **4.1 Content and Use**

In order for EWEB to prioritize and execute the various treatment plans and goals for the year, EWEB will maintain two GIS database “products.” One will be a compilation of all existing information on identified resources, such as special-status plants, known wetlands, and cultural sites. This data set will be confidential and the information will be used to prioritize treatment goals for the year, by identified sections of the transmission line.

The second product will be a presentation of this information for EWEB O&M crews; this compilation of GIS layers will be an integral part of the Transmission Line Operations Guide. This Operations “map” will not contain confidential information but will show a section-by-

section guide to priorities and protection measures along the transmission line. If a crew is mobilized to go to a particular section, the GIS interactive database will indicate where special procedures must be followed to protect sensitive resources.

Table 2 provides an example summary of data layers that will be provided for the two different TLMP GIS products. Figure 2 shows an example snapshot of the data-rich version that EWEB’s Environmental Management Section (EM) will use to manage the resources. Figure 3 shows an example snapshot of the field-ready database, which EWEB’s crews will use to ensure protection of resources during project O&M.

Table 2. Example TLMP GIS layers for EWEB’s Environmental Management Section (EM) and for the Operational Guide (OG).

<b>Data layer</b>	<b>EM or OG access</b>
<b><i>Raw data</i></b>	
Special-status plants	EM
Culturally significant plant populations	EM
Wetlands	EM
Perennial streams	EM
Intermittent and ephemeral streams	EM
Northern spotted owl activity centers	EM
Bald eagle nesting areas	EM
Peregrine falcon nesting habitat	EM
Harlequin duck nesting habitat	EM
Cultural resource sites	EM
Weeds	EM
Transmission line towers	EM & OG
Transmission line sections	EM & OG
Public/private parcels	EM & OG
<b><i>Protection data</i></b>	
Special-status plants buffered	EM & OG
Culturally significant plant populations buffered	EM & OG
Wetlands buffered	EM & OG
Perennial streams zones buffered	EM & OG
Intermittent streams zones buffered	EM & OG
Northern spotted owl activity centers buffered	EM & OG
Bald eagle nesting areas buffered	EM & OG
Peregrine falcon nesting habitat buffered	EM & OG
Harlequin duck nesting habitat buffered	EM & OG
Restriction of road access (gates)	EM & OG
Cultural resource sites buffered	EM & OG
<b><i>Prescription data</i></b>	
Weed treatment	EM
Early seral species enhancement	EM
Culturally significant plant species enhancement	EM
General revegetation	EM
Wetland enhancement	EM
Riparian enhancement	EM
Variable width/ enhance for early seral	EM



<b>Data layer</b>	<b>EM or OG access</b>
Transmission line visibility enhancement	EM
Dead wood management	EM
Snag management	EM
<b><i>Post-treatment data</i></b>	
Post-treatment weed treatment	EM & OG
Post-treatment early seral species enhancement	EM & OG
Post-treatment culturally significant plant species enhancement	EM & OG
Post-treatment general revegetation	EM & OG
Post-treatment wetland enhancement	EM & OG
Post-treatment riparian enhancement	EM & OG
Post-treatment variable width/ enhancement for early seral species	EM & OG
Post-treatment transmission line visibility enhancement	EM & OG
Post-treatment dead wood management	EM & OG
Post-treatment snag management	EM & OG

Table 3 provides an example summary of the applicable buffers for the resource layers and when the buffers are in place. The Forest Service will provide and EWEB will adopt updates to any change in buffer distances and/or timing.

Table 3. Example TLMP GIS Layers, including confidential information.

<b>GIS data layer</b>	<b>Buffer*</b>	<b>Applicable time of year*</b>
Transmission line towers	N/A	N/A
Transmission line sections	N/A	N/A
Public/private parcels	N/A	N/A
Protection of identified resources	Specific to resource	All year
Special-status plants buffered	15 m (50 ft)	All year
Culturally significant plant populations buffered	7.625-15 m (25-50 ft)	All year
Wetlands buffered	15 m (50 ft)	All year
Perennial streams buffered	15 m (50 ft)	All year
Intermittent and ephemeral streams buffered	15 m (50 ft)	All year
Cultural resource sites buffered	7.625-15 m (25-50 ft)	All year
Protection of identified resources with seasonal restrictions	Specific to resource	Seasonal
Northern spotted owl current protections	400 m (0.25 mi)	Current Standards
Bald eagle nesting areas buffered	800 m (0.5 mi)	Current Standards
Peregrine falcon nesting habitat buffered	2,400 m (1.5 mi)	Current Standards
Harlequin duck nesting habitat buffered	Within 1/4 mile of nesting habitat	March 15-July 15
Restriction of road access (gates)	0	All year

<b>GIS data layer</b>	<b>Buffer*</b>	<b>Applicable time of year*</b>
Protection of restoration and enhancement areas	N/A; defined by section	All year
Post-treatment weed treatment areas	N/A; defined by section	All year
Post-treatment early seral species enhancement	N/A; defined by section	All year
Post-treatment culturally significant plant species enhancement	N/A; defined by section	All year
Post-treatment general revegetation areas	N/A; defined by section	All year
Post-treatment wetland enhancement areas	N/A; defined by section	All year
Post-treatment riparian enhancement areas	N/A; defined by section	All year
Post-treatment variable width/enhancement for early seral species	N/A; defined by section	All year
Post-treatment transmission line visibility enhancement	N/A; defined by section	All year
Post-treatment dead wood management	N/A; defined by section	All year
Post-treatment snag management	N/A; defined by section	All year

\*Or most current standards

## 4.2 Reporting and Feedback

As mandated by the various management plans, information on existing resources will be periodically updated. For example, as described in the VMP, the Project Area will be re-surveyed every five years to update information on special-status and noxious/invasive non-native plant populations. Therefore, a system is in place to update the GIS database with new information, according to the cycles for re-surveying described in the management plans.

In addition, as progress is made on the different treatment plans for the transmission line sections, the resulting site conditions and corresponding management protocols will be documented and incorporated into the database. The GIS database will be updated on a yearly basis and such updates will be reflected in both products (i.e., the data-rich or “EM” version and the field-ready or “OG” version).

## 5 DEER CREEK REALIGNMENT

Under the current alignment, the transmission line initially crosses Deer Creek between Towers 20 and 21, and then begins heading south along the creek (Figure 4). Under the preliminary engineering analysis completed by EWEB, the initial crossing and the location of Towers 20 through 22 will not change. Beginning at Tower 23, the transmission line will convert from a horizontal plane (three lines in the horizontal plane parallel to the ground) to a vertical configuration (three lines on a single tower perpendicular to the ground). New towers (Figure 4, A–I) will be located along the current alignment of the Deer Creek Road (National Forest System Road #2654000) to existing Tower 29. At Tower 29, the line will revert to a horizontal configuration, continuing to the south and Towers 30 through 144. The existing and preliminary proposed configurations of the transmission line in the Deer Creek valley are depicted on Figure 4. Cross-section drawings of existing and proposed tower structures are shown in Figure 5.

It is anticipated that a total of five existing towers will be removed (Towers 23, and 25–28)<sup>1</sup> and nine towers installed (Towers A–I), along with approximately 1,200 m (4,000 ft) of three-phase transmission line. The new towers will be single-pole steel or hybrid structures approximately 24–26 m (80–85 ft) tall, which is about 3–6 m (10–20 ft) taller than the existing line in the Deer Creek valley. Typical pole diameters will be approximately 76 cm (30 in) at ground level and 23 cm (9 in) at the top. The span lengths of the new line configuration will be between 91 and 122 m (300 and 400 ft).

This transmission line realignment will be completed within three years after License issuance.

## **6 REFERENCES**

EWEB (Eugene Water and Electric Board). 2016. Amended and Restated Settlement Agreement for the Relicensing of the Carmen-Smith Hydroelectric Project. Prepared by EWEB, Eugene, Oregon for the Federal Energy Regulatory Commission, Washington, D.C.

Stillwater Sciences. 2006. Water quality at the Carmen-Smith Hydroelectric Project, upper McKenzie River basin, Oregon. Final report. Prepared by Stillwater Sciences, Arcata, California for Eugene Water & Electric Board, Eugene, Oregon.

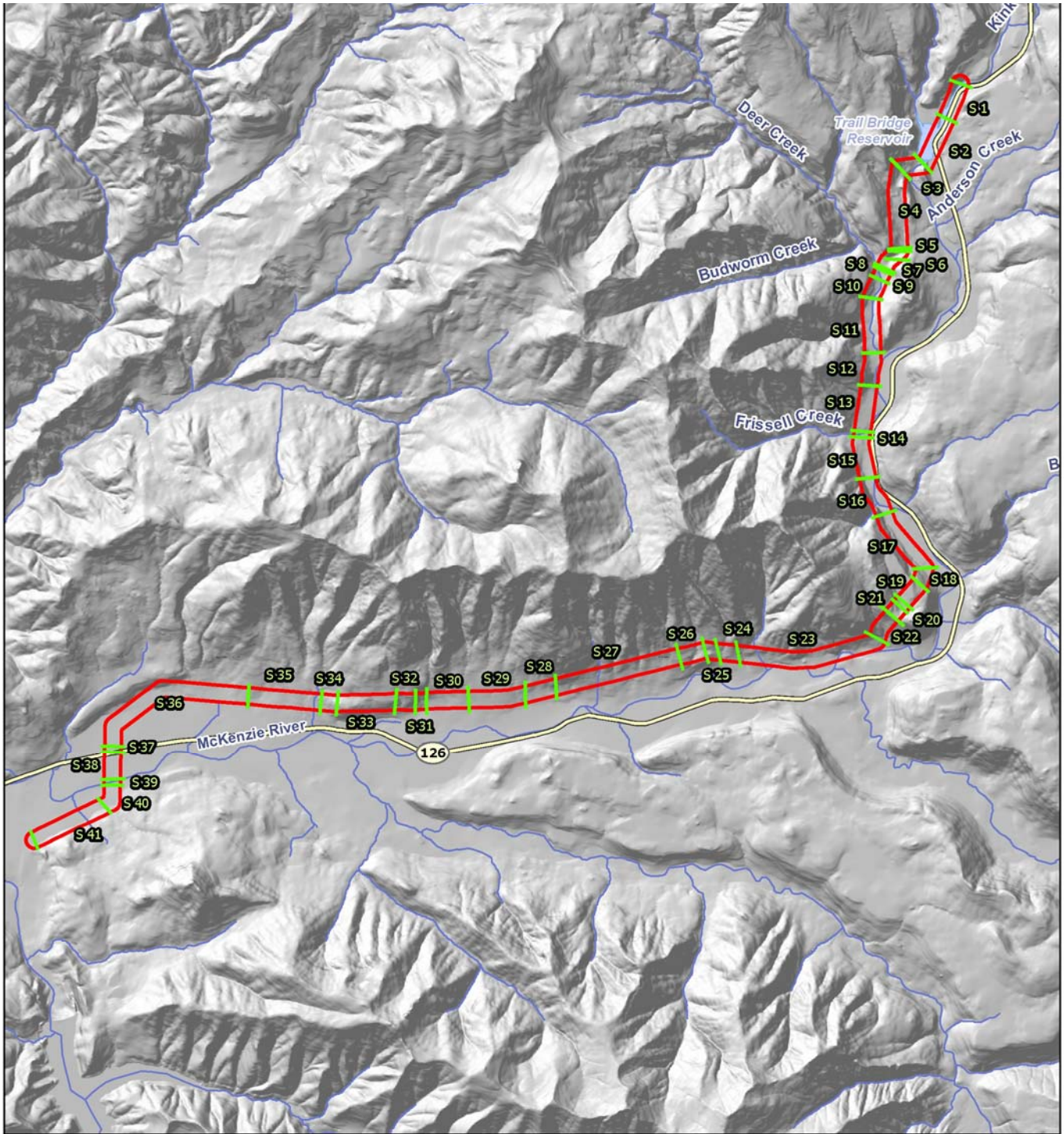
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<sup>1</sup> There is no tower numbered 24.

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## Figures

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Carmen-Cougar transmission line right-of-way within the Carmen-Smith Hydroelectric Project

- Transmission Line Management Plan Area
- Sections

Carmen-Smith Hydroelectric Project  
(FERC No. 2242)

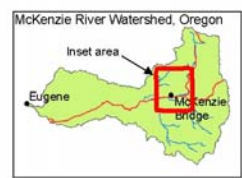
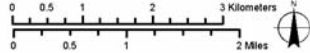


Figure 1. Carmen-Cougar transmission line corridor within the Carmen-Smith Hydroelectric Project.

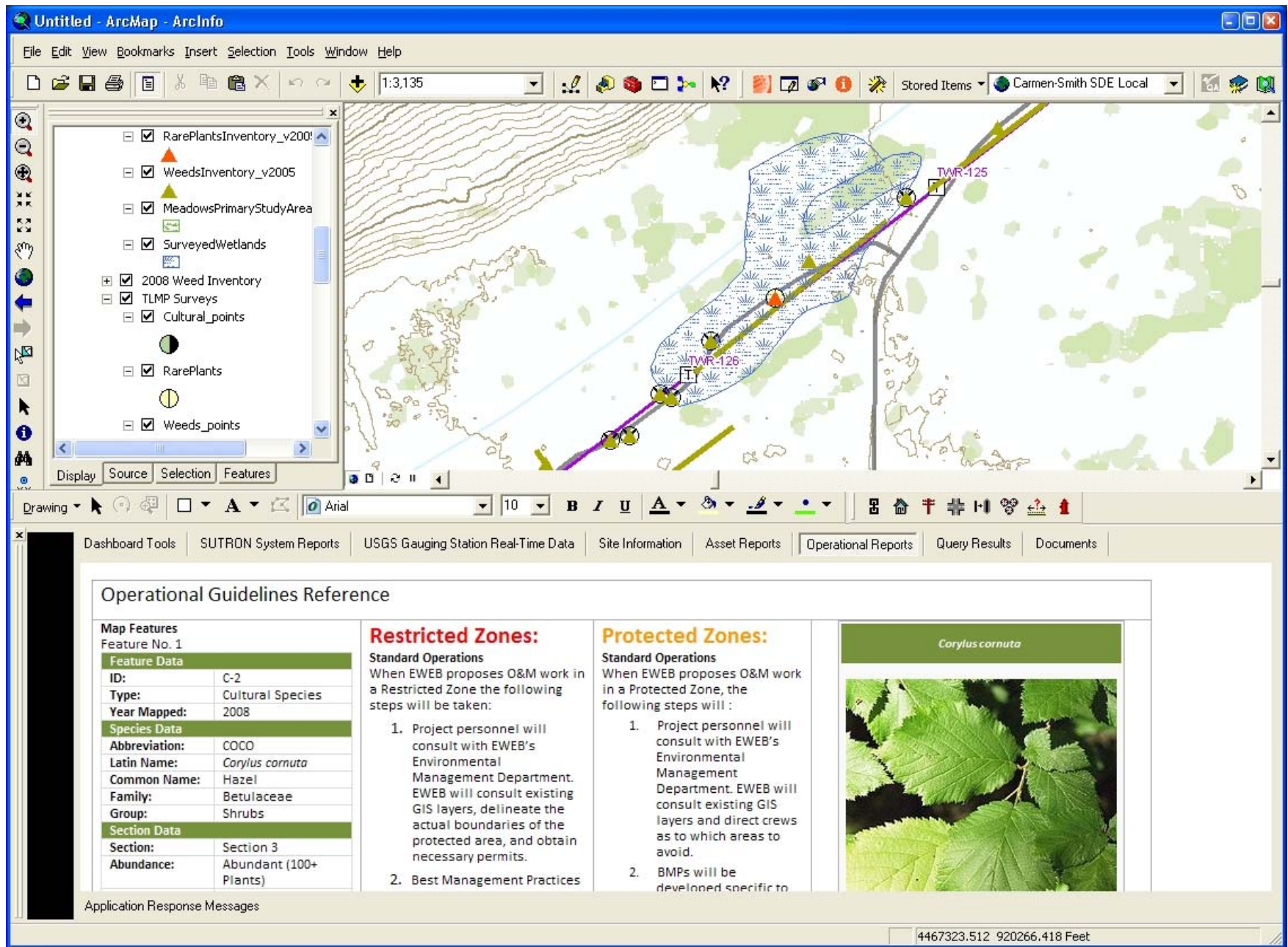


Figure 2. Mockup of GIS data layers for the EWEB Environmental Management Department.

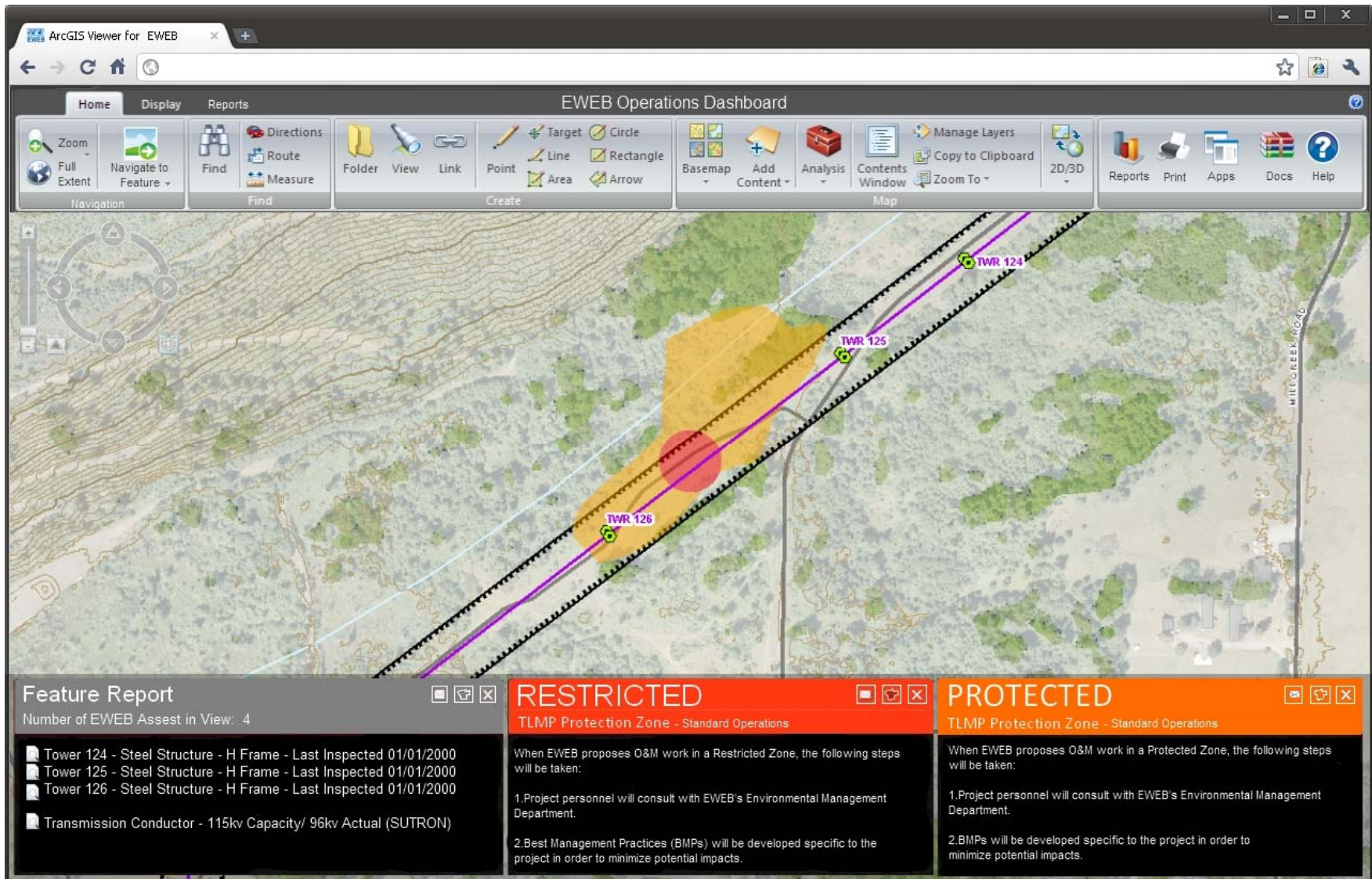


Figure 3. Mockup of GIS data layers for the EWEB Operational Guide.

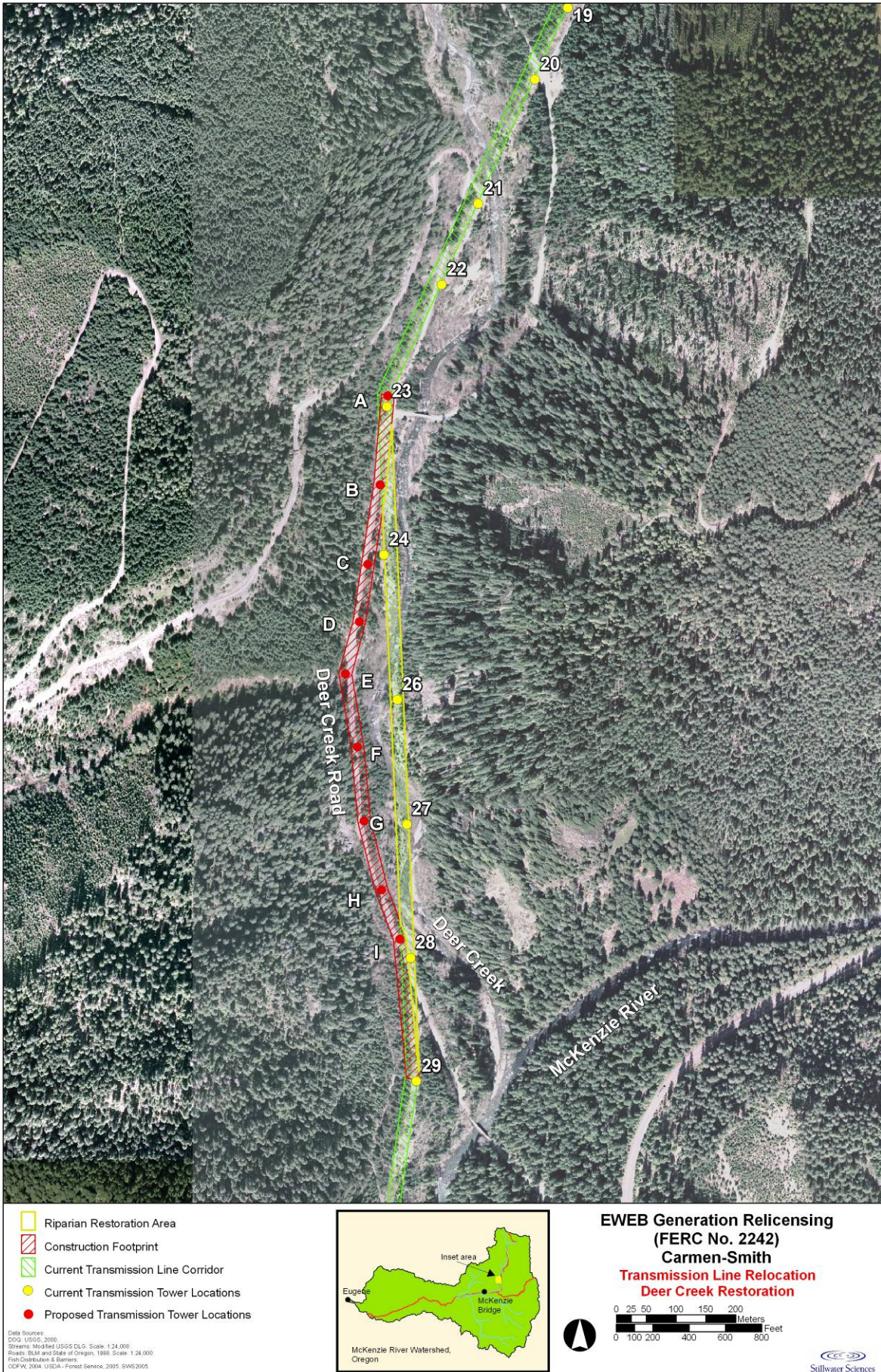


Figure 4. Plan Area including the current and proposed transmission tower locations and disturbance areas, and the proposed riparian restoration area.



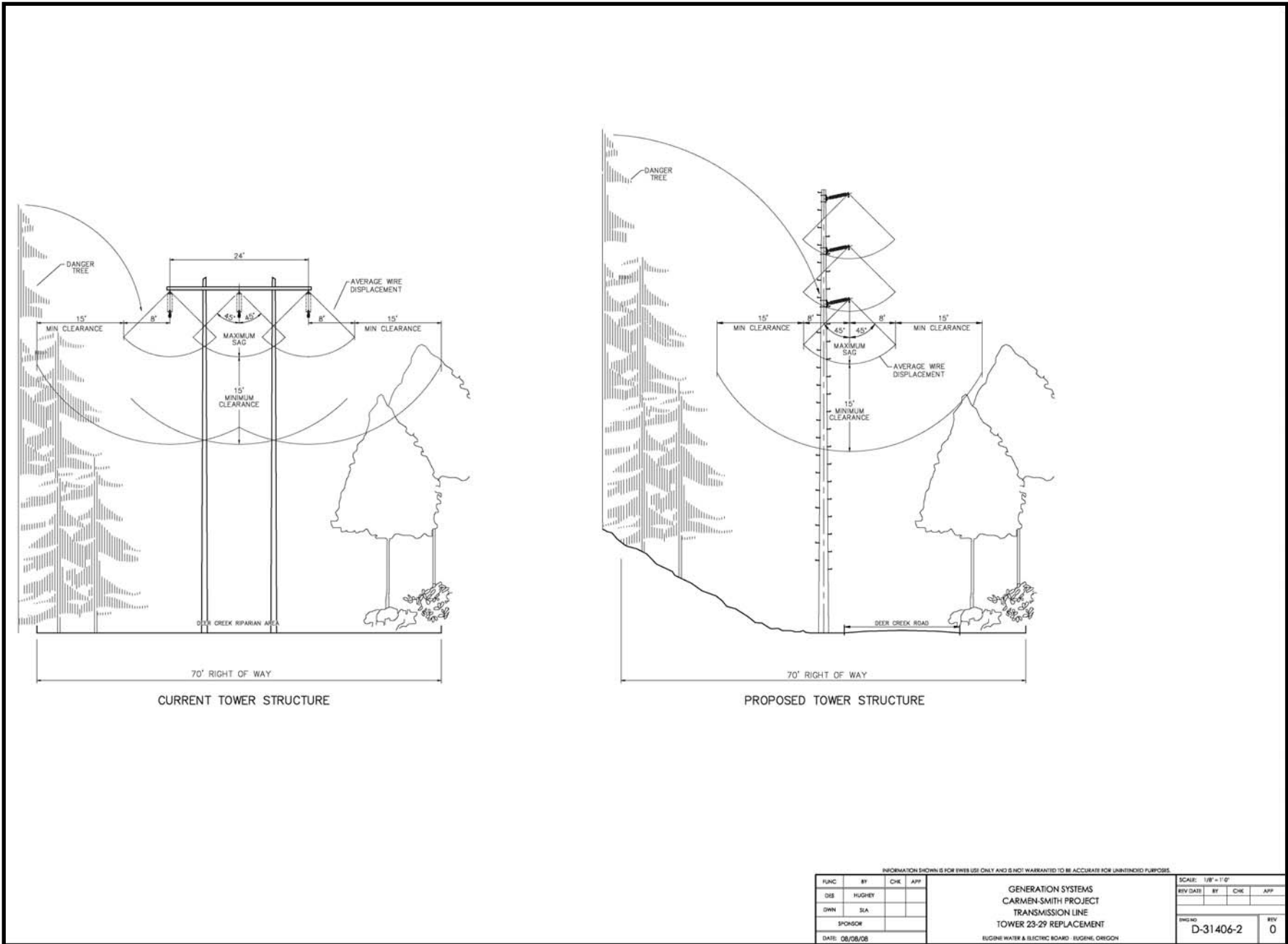


Figure 5. Current and proposed transmission line cross-sections.

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## **Appendix A: Transmission Line Operations Guide**

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## **TRANSMISSION LINE OPERATIONS GUIDE**

### **1 INTRODUCTION**

This guide describes EWEB procedures, both routine and emergency, involving work around the transmission line that has the potential to affect certain natural resources, such as vegetation, wildlife, or habitat. The guide details the responsibilities of the EWEB crews and the EWEB Environmental Management Section in communication, planning, protecting resources in the field, updating mapped information, and conducting any necessary follow-up activities such as mitigation.

In brief, three different “Management Zones” prescriptions describe different conservation measures to be taken when planning and performing O&M work in an area with an identified resource (e.g., a special-status plant population). The GIS database provides spatial information on Management Zones per transmission line section using electronic maps.

### **2 OPERATIONAL PROCEDURES**

#### **2.1 Procedures for All Transmission Line Areas**

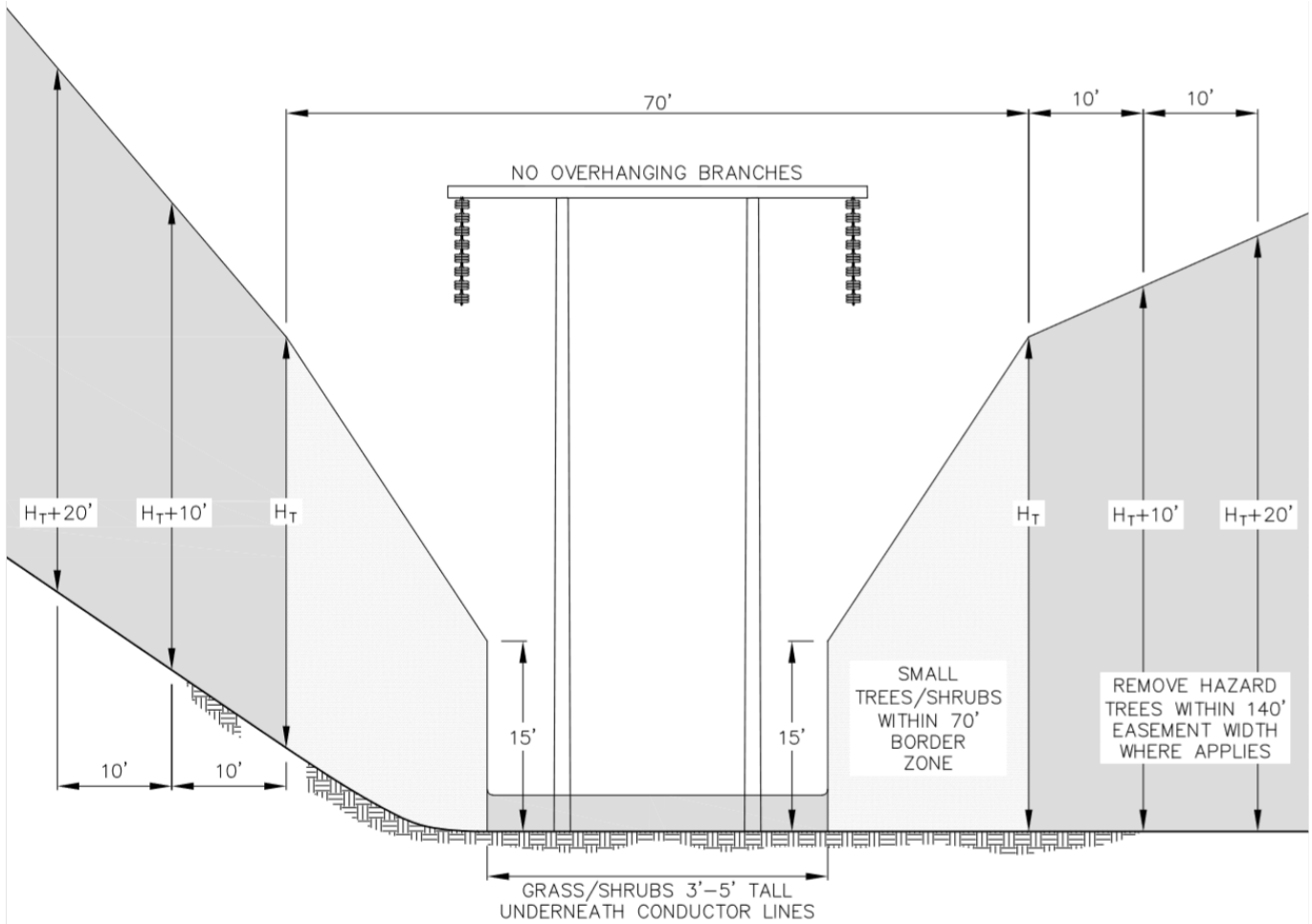
In order to meet several habitat protection and enhancement goals contained in the Carmen Smith Settlement agreement, EWEB established the practice of hand managing the Carmen-Cougar transmission corridor. This process, in place since 2010, involves manually sweeping the entire corridor, removing invasive non-native species, as well as native species that have the likelihood of growing too tall for ANSI compliance standards. The line clearance standards for the Carmen Smith Transmission Corridor are described in the EWEB Carmen Transmission Line Clearance Guidelines in the following two pages.

## EWEB CARMEN TRANSMISSION LINE CLEARANCE GUIDELINES

Refer to "Transmission Line Management Plan" for more information.

Figure 1 shows EWEB's current vegetation management in the Carmen transmission line right-of-way.

**Figure 1: Carmen Transmission Line Vegetation Clearance**



### EWEB Carmen Transmission with Defined Width Right-of-Way Clearance Guidelines.

$H_C$  = Conductor Attachment Height

$H_T = H_C - 5'$

All access roads must be cleared.

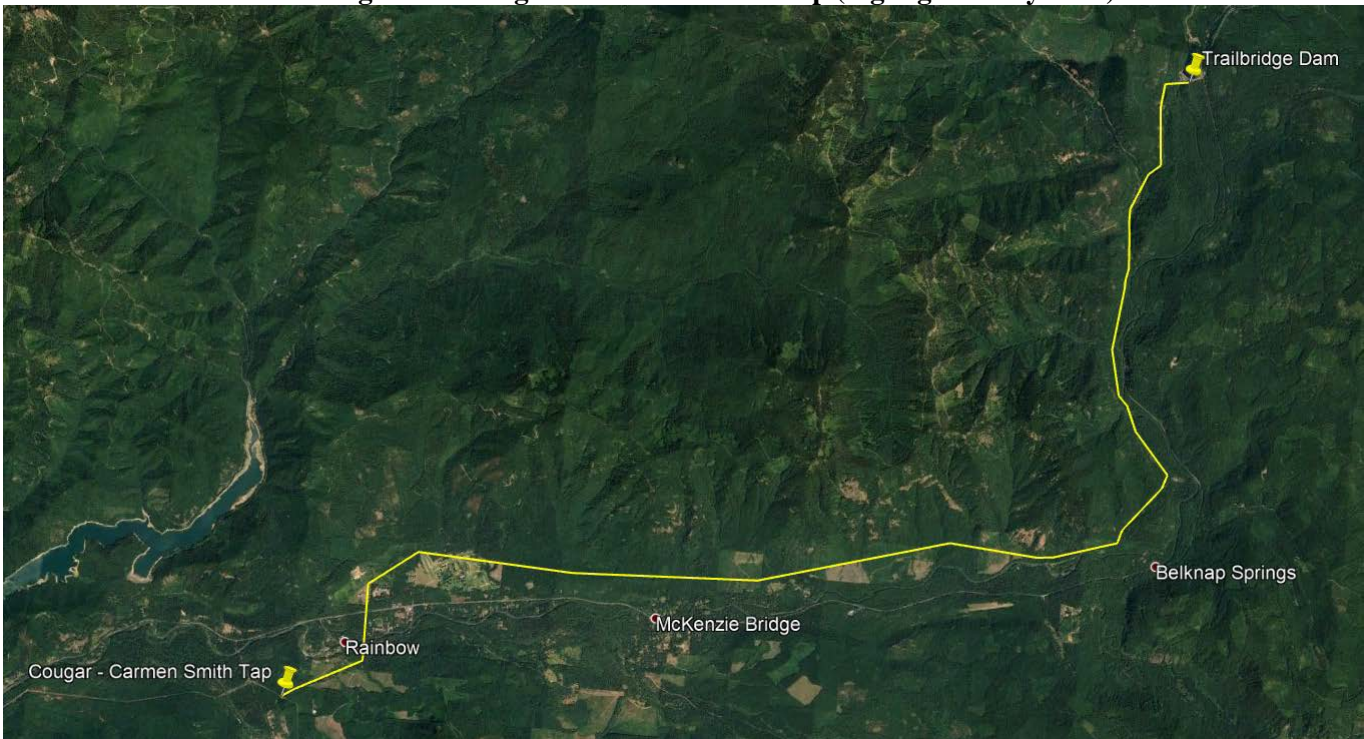
Radius of 10 feet around poles and anchors must be cleared.

The vegetation underneath the conductor lines shall be managed to a maximum of 5 feet. No trees shall be located closer than 30 feet from conductors where applicable. Tree height can be increased proportionally to the distance away from the line with the shortest portion ( $H_T$ ) being 5 feet lower than transmission conductor attachment ( $H_C$ )

## GEOGRAPHIC AREAS DEFINED UNDER THIS STANDARD

The transmission line right-of-way for this plan covers the approximately 17 mile “Cougar – Carmen Smith Tap” transmission line starting at the location 44° 9’25.62”N, 122° 14’56.97”W and ending at 44° 16’20.44”N, 122° 2’57.51”W.

**Figure 2: Cougar – Carmen Smith Tap (highlighted in yellow)**



### Notes and Exceptions:

(1) Recreation sites are under the jurisdiction of the Forest Service. EWEB is not responsible for vegetation management at recreation sites.

**There are three specific requirements that apply whenever crews are working along the transmission line:**

1. **Discovery of sick, injured, or dead fish or wildlife:** EWEB crews must report any sick, injured, or dead wildlife or fish if the casualty is even potentially due to operations, such as observing a dead bird below a transmission line. As soon as possible, and by the end of the day of the finding Crew members must fill out a fish/wildlife casualty form and report such findings to EWEB’s Environmental Management section by emailing [fishandwildlife@eweb.org](mailto:fishandwildlife@eweb.org). Injured wildlife can be taken to the Cascades Raptor Care Center or Willamette Wildlife Rescue and Rehab Center in Eugene. Environmental Management is required to report sick, injured, or dead individuals of certain species to ODFW, NMFS, USFS, and/or USFWS as described in Article 26 of the Carmen License.
2. **Accidental archaeological finds:** “Inadvertent finds” of archaeological resources can occur when site work accidentally unearths an artifact (e.g. a scraping tool or funerary object), Native American grave, or archaeological site, or when just walking around the project area (e.g. a projectile point is found lying on the ground). Archaeological resources are protected by state and federal law. Following the process below will help protect archaeological resources and ensure compliance with the law:
  - If an artifact is found on the surface of the ground:
    - Note its location.
    - Leave the artifact(s) in place.
    - Call the Cultural Resources Liaison as soon as possible.
    - Continue non-ground-disturbing activities so long as the artifact is not disturbed.
  - If site work unearths an artifact, archaeological site, or human remains:
    - Stop work immediately.
    - Leave the unearthed artifact or specimen in place.
    - Protect the site from further damage or erosion if possible (e.g. loosely cover with geofabric or tarp).
    - Restrict access to the site (e.g. tape off perimeter).
    - Call the Cultural Resources Liaison as soon as possible. The Cultural Resources Liaison will initiate calls to agencies as outlined in the Carmen-Smith license.
    - If the find appears to be human remains, take all practical steps to keep the area secure (e.g. barricades, locked gate) and undisturbed, as it may turn out to be a crime scene.
3. **Blasting:** No blasting or helicopter use will be conducted without specific consultation with and advance approval from EWEB’s Environmental Management Section. The guidelines in this document, including the limitations on disturbance within specific distances from wildlife habitat and activity centers, are premised on the assumption that no blasting or helicopter use will occur.

## 2.2 Procedures for Different Management Zones

In brief, EWEB crews will execute the steps as outlined below:

1. Understand the “Management Zone” prescriptions;
2. Use the GIS database to determine if planned work will be in one of three “management zones” as designated in this operations guide;
3. Follow the guidelines per identified transmission line section, including contacting the EWEB Environmental Management Section for additional information and guidance;
4. Report on Project O&M or emergency procedures and resource protection; and
5. Provide information to EWEB’s Environmental Management Section so that the GIS database can be updated.

More details on each of the steps are as follows:

There are three basic prescription types within the transmission line corridor: Restricted Zones; Protected Zones; and Transitional Zones. Table A-1 indicates the prescription type by resource area; prescription protocols for both Standard Operations and Emergency Operations follow.

**Eugene Water & Electric Board**

## TLMP Protection Zones



### RESTRICTED

Restricted zones represent sites with State or federally protected features. All precautions should be taken to ensure that these areas are not disturbed\* Access may require special permits.



### PROTECTED

Protected zones represent sites with restored or sensitive features. Protected areas should be avoided when possible. Foot Access acceptable. Vehicle access and other potentially disturbing activities allowed only when following specific protocol developed on an instance by instance basis.



### TRANSITIONAL

Transitional zones represent sites in progress. Access is allowed but further ground or vegetation disturbing activities should only be performed following protocol developed on a site by site basis.

**Table A-1.** TLMP Operations Guide GIS Layers, including confidential information.

<b>Resource type</b>	<b>Prescription type</b>
Special-status plant populations	Restricted
Culturally significant plant populations	Protected
Weed treatment	Transitional to Protected
General revegetation	Transitional to Protected
Culturally significant species enhancement	Transitional to Protected
Wetland and riparian enhancement	Transitional to Protected
Early seral enhancement	Transitional to Protected
Dead wood and snag management	Transitional to Protected
Protection of the northern spotted owl	Restricted
Protection of the bald eagle	Restricted
Protection of the peregrine falcon	Restricted
Protection of the harlequin duck	Restricted
Variable width/ enhancement for early seral species	Transitional to Protected
Transmission line visibility	Protected
Protection of cultural resources sites	Restricted

### 2.2.1 Restricted Zones

Restricted Zones represent sites with state or Federally-protected features. Crew must take all precautions to ensure that these areas are not disturbed, including any ground- or vegetation-disturbing activities such as vehicle access. Access may require special permits.

#### **Standard Operations in Restricted Zones**

When EWEB proposes O&M work in a Restricted Zone, the following steps will be taken:

1. As soon as the t-line supervisor is aware of the scope of the project, he/she will consult with EWEB’s Environmental Management Section regarding planned work and location(s).
2. EWEB will consult existing GIS layers, delineate the actual boundaries of the protected area, and obtain necessary permits.
3. Environmental Management will use their GIS database to determine which management prescriptions will apply to the project area where the crew would be working. They will also determine if there are specific requirements or processes for that resource, as described in the applicable resource management plan(s). If there are no existing protocols in the management plan(s), Environmental Management will develop Best Management Practices (BMPs) specific to the project, in order to minimize potential impacts.
4. Environmental Management will communicate the requirements and processes to the Project personnel and direct crews as to which areas to avoid.
5. The t-line supervisor will promptly inform Environmental Management (EM) of any unanticipated impacts, and will inform EM once work is completed. The supervisor will also communicate any information that needs to be updated within the GIS layers to EM, who will ensure that the GIS updates are made.



### **Emergency Operations in Restricted Zones**

If it is not possible to consult with Environmental Management due to an emergency situation, the following alternative measures will be taken:

1. Leave a message with EWEB's Environmental Management Section providing information on the vicinity and nature of the emergency O&M work.
2. Perform the work while following, at a minimum, the following Emergency Work BMPs:
  - Pre-wash all vehicles at ROC headquarters prior to departure to remove vegetation or soil that could contain invasive weed cuttings or seed.
  - Keep all vehicles on roadways unless necessary for work access.
  - Avoid and or minimize vegetation or ground disturbance.
  - Document any necessary vegetation or ground-disturbing activities (with photos if possible).
  - Leave damaged or broken poles or trees for later removal if removal would require further vegetation or ground disturbance.
  - Avoid excessive noise from power equipment, etc.
  - Provide Vegetation Program Coordinator with work details upon completion.
3. In addition, the T-line supervisor will communicate to Environmental Management (EM) any information that needs to be updated within the GIS layers. EM will ensure that the GIS updates are made.

### **2.2.2 Protected Zones**

Protected Zones represent sites with restored or sensitive features. Protected areas should be avoided when possible. Foot access is acceptable. Vehicle access and other potentially disturbing activities are allowed only when following a specific protocol developed on a case-by-case basis.

#### **Standard Operations in Protected Zones**

1. When EWEB proposes O&M work in a Protected Zone, the following steps will be taken: As soon as the t-line supervisor is aware of the scope of the project, he/she will consult with EWEB's Environmental Management Section regarding planned work and location(s).
2. EWEB will consult existing GIS layers, delineate the actual boundaries of the protected area, and obtain necessary permits.
3. Environmental Management will use their GIS database to determine which management prescriptions will apply to the project area where the crew would be working. They will also determine if there are specific requirements or processes involving potentially affected resource(s), as described in the applicable Resource Management Plan(s). If there are no existing protocols in the management plan(s), Environmental Management will develop Best Management Practices (BMPs) specific to the project, in order to minimize potential impacts.
4. Environmental Management will communicate the requirements and processes to the Project personnel.
5. The t-line supervisor will promptly inform Environmental Management (EM) of any unanticipated impacts, and will inform EM once work is completed. The supervisor will also communicate any information that needs to be updated within the GIS layers to EM, who will ensure that the GIS updates are made.

### **Emergency Operations in Protected Zones**

If it is not possible to consult with Environmental Management due to an emergency situation, the following alternative measures will be taken:

1. Leave a message with EWEB's Environmental Management Section providing information on the vicinity and nature of the emergency O&M work.
2. Perform the work while following, at a minimum, the following Emergency Work BMPs:
  - Pre-wash all vehicles at ROC headquarters prior to departure to remove vegetation or soil that could contain invasive weed cuttings or seed.
  - Keep all vehicles on roadways unless necessary for work access.
  - Avoid and or minimize vegetation or ground disturbance.
  - Document any necessary vegetation or ground-disturbing activities (with photos if possible).
  - Leave damaged or broken poles or trees for later removal if removal would require further vegetation or ground disturbance.
  - Avoid excessive noise from power equipment, etc.
  - Provide Vegetation Program Coordinator with work details upon completion.
3. In addition, the supervisor will communicate to Environmental Management (EM) any information that needs to be updated within the GIS layers. EM will ensure that the GIS updates are made.

### **2.2.3 Transitional Zones**

Transitional Zones represent sites in progress. Access is allowed but further ground- or vegetation-disturbing activities should only be performed following a protocol that is developed on a case-by-case basis.

#### **Standard Operations in Transitional Zones**

When EWEB proposes O&M work in a Transitional Zone, the following steps will be taken:

1. As soon as the t-line supervisor is aware of the scope of the project, he/she will inform Environmental Management of the area to be accessed and work to be performed.
2. Be cognizant of flagged, newly-planted areas or areas that have been otherwise treated.
3. Take all practical steps to avoid disturbance.
4. Prevent the spread of non-native/invasive weeds by following EWEB's appropriate weed management measures, including washing equipment between job sites, and proper disposal of soil and vegetation.
5. The t-line supervisor will promptly inform Environmental Management (EM) of any unanticipated impacts, and will inform EM once work is completed.

#### **Emergency Operations in Transitional Zones**

If it is not possible to consult with Environmental Management prior to performing the O&M work, the following alternative measures will be taken:

1. Leave a message with Environmental Management providing information on the vicinity and nature of the emergency O&M work.
2. Perform the work with the following precautions: be cognizant of flagged, newly-planted areas; take all practical steps to avoid disturbance; and follow EWEB's appropriate weed management measures.
3. As soon as practicable, the t-line supervisor will inform Environmental Management of where the work was completed and if there were any unanticipated impacts.

### **2.3 Further actions and mitigation measures**

If necessary, there will be a follow-up evaluation of the site and an assessment of whether further action, such as mitigation measures, will be necessary. Any additional activities will be conducted and reported as described in the applicable resource management plan.