

# **CGP Coverage for Highway Planting Projects-Interim Guidance**

**June 06, 2011**

## **EXECUTIVE SUMMARY**

### **Purpose**

To reduce costs and efforts necessary for implementing the Construction General Permit (CGP), this guidance outlines the handling of highway planting work contracted by Caltrans.

### **Synopsis**

The majority of highway planting work can be classified into three types of contracts. These are 1) roadway construction contracts that include highway planting work, 2) environmental mitigation projects to create habitat, and 3) highway planting work performed under a stand-alone contract. Guidance for these projects is described in the Project Planning and Design Guide (PPDG) and the Department's Guidance for Risk Level Determination.

#### **1) Roadway Construction Contracts with Highway Planting Work .**

These projects include landscape irrigation and planting work along with the roadway improvement work built under a single contract. These are not separate highway planting contracts that follow roadway improvement contracts.

Construct these projects by performing all roadway improvement work including installing irrigation and planting materials under the requirements of a Storm Water Pollution Prevention Plan (SWPPP), filing an NOT/NOCC to release coverage under the CGP, continuing through the plant establishment period. The plant establishment period should not be considered work needing coverage under the CGP.

#### **2) Environmental Mitigation Contracts.**

These projects are usually associated with roadway improvement projects but installed under a separate contract. Usually, these projects seek to create wetlands or riparian areas and, consequently, require major excavation and grading. Even though these projects include planting and irrigation work, these are construction projects because of the topography altering activities and must be covered under the CGP.

As with #1, construct these projects by performing all roadway improvement work including installing irrigation and planting materials under a SWPPP, filing an NOT/NOCC to release coverage under the CGP, and continue through the plant establishment period. Again, the plant establishment period is not work needing coverage under the CGP.

#### **3) Stand-Alone Highway Planting Contracts.**

These are separate highway planting contracts that follow roadway improvement contracts. Since the clearing and grubbing work and major topography altering activities were performed under the parent, roadway contract, and since the irrigation and planting work is primarily agricultural and is considered "routine maintenance" under the CGP, the project does not need coverage under the CGP. Consequently, the project can be constructed using a Water Pollution Control Program (WPCP). The attached arguments support this action for highway planting projects.

# Arguments in Support of Excluding Highway Planting Projects from CGP Coverage

April 11, 2011

## SUMMARY

### **Purpose**

The purpose of this paper is to provide arguments in favor of excluding highway planting projects from coverage under the Construction General Permit (CGP). The ultimate goal would be the development of formal stormwater documentation policy/guidance to be used for Statewide. Basis for using this guidance would be documented in the Storm Water Data Report (SWDR).

### **Discussion**

Although highway planting projects built under their own contracts have historically been covered under the CGP, language in the new CGP suggests that this may not be necessary. In addition, certain new requirements in the CGP could add unnecessary costs to the project. Since a many types of activities can be performed under a highway planting contract, an explanation of intent is needed.

### **Proposed Action**

Direct Design staff to document/develop highway planting projects as low risk and not subject to coverage under the new CGP. Qualifying contracts **must** meet the conditions described below for typical highway planting projects. These highway planting projects will be constructed under a water pollution control program (WPCP) rather than SWPPP regardless of project area, but still must include all the necessary stormwater BMPs. This action will be documented in the project's storm water data report (SWDR).

## BACKGROUND

### Typical Highway Planting Projects:

The Project Development and Procedures Manual (PDPM), Chapter 29, lists these categories of highway planting projects: 1) new highway planting, 2) replacement highway planting, 3) highway planting restoration, 4) highway planting revegetation, 5) required mitigation planting, and 6) irrigation system upgrade that address safety requirements, provide compliance with environmental commitments, and assist in the visual integration of the transportation facility within the existing environs. Any of these categories is eligible as long as the work conforms to the following:

- 1) The work is done under a single contract and includes an installation period for building irrigation equipment and planting vegetation and a plan establishment period (PEP) for maturing the landscape. The installation period is often less than one year and the establishment period is usually 3 years.
- 2) The work does not alter the topography. The contract does not include rough and fine grading as this work is usually done under a previous roadway contract.

- 3) The contract does not include major clearing and grubbing work. Tree and shrub removal is allowed to address safety concerns as long as the removal work a minor amount of the total work.
- 4) The completed landscape will consist mainly of trees and shrubs with bark and wood chip mulch but may include one or more of the following: 1) areas of low growing shrub or perennial groundcovers; 2) minor areas of non-degradable materials such as rock blanket, decomposed granite, or hard surface (minor concrete); 3) minor areas of perennial groundcover consisting of grasses, forbs, and wildflowers; and 4) areas of existing and preserved shrubs and large trees.
- 5) The addition of impervious surfaces such as maintenance vehicle pullouts, gore paving, equipment enclosure pads, etc., totals less than one acre.

***Construction contracts that combine both roadway work with highway planting work will not be considered.***

Activities and Permit Coverage:

Several sections of the CGP suggest that highway planting work projects and the associated installation work should not be covered under the permit.

From Section I “Findings,” C. “Activities Not Covered Under the General Permit” is the following condition that appears crafted to exclude highway planting projects from coverage:

*24. Routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of the facility.*

As highway planting projects do not alter the alignment of the roadway or increase or restrict the drainage systems, this exclusion should apply. Also, a main objective of these projects is to provide long-term protection of the roadway through erosion control.

The following reference from the California Street and Highway Code reinforces highway planting as a routine maintenance activity. From S&HC, Section 27:

*Maintenance, Definition of General Provisions*

*A. The preservation and keeping of right of ways, and each type of roadway, structure, safety convenience or device, **planting**, illumination equipment, and other facility, in the safe and usable condition to which it has been improved or constructed, but does not include reconstruction or other improvement.*

Disturbed Soil Area:

Although “soil disturbance” appears throughout the CGP, a comprehensive and easy to interpret definition does not exist. This is unfortunate since the quantity of disturbed soil area (DSA) is usually the only factor used to determine CGP coverage. Several definitions for DSA were discovered that directly state that topography altering activities are DSA, however none of them relieve confusion over whether highway planting work activities should be considered DSA.

From Section I “Findings,” B. “Activities Covered Under the General Permit” is the following condition that appears to exclude highway planting work:

18. Any construction or demolition activity, including, but not limited to, clearing, grading, grubbing, or excavation, or any other activity that results in a land disturbance of equal to or greater than one acre.

Appendix 5 “Glossary,” of the CGP provides:

**Grading Phase (part of the Grading and Land Development Phase)** Includes reconfiguring the topography and slope including; alluvium removals; canyon cleanouts; rock undercuts; keyway excavations; land form grading; and stockpiling of select material for capping operations.

**Both of the above references allude to major earthmoving activities as the source of the DSA. Since none of these activities are part of highway planting contracts, coverage under the CGP is not applicable.** The following examples reinforce this interpretation.

From Appendix G of the Project Planning and Design Guide (PPDG), July 2010:

**Disturbed Soil Area (DSA)** - The disturbed soil area includes all construction activity that disturbs native soil and fill within the project limits. This does not include **routine maintenance** activity to maintain existing highways (facilities) or preventive maintenance to maintain highway structures, and existing functions. Asphalt concrete, Portland cement concrete, aggregate base, shoulder backing, bridge decks, sidewalks, buildings, road side ditches, gutters, dikes, and culverts, are all part of existing highway facilities.

Construction activity in the context of **NPDES** stormwater and **CWA** is defined by **EPA**: “commencement of construction” as the initial disturbance of soils associated with clearing, grading, or excavating activities or other construction activities (63 CFR 7913). This does not include routine maintenance of highway facilities. For example, an AC overlay with a thin lift of shoulder backing on top of an existing facility is routine maintenance and has 0 (zero) DSA.

In the above example, grading and excavating work is emphasized as DSA and routine maintenance work, especially shoulder backing, is excluded. As to highway planting work, the definition is still unenlightening.

Another explanation for DSA is given as part of small construction frequently asked questions dated April 17, 2003 from the California Environmental Protection Agency (CalEPA) and State Water Resources Control Board (SWRCB). It can be found at:

[http://www.swrcb.ca.gov/water\\_issues/programs/stormwater/smconstfaq.shtml](http://www.swrcb.ca.gov/water_issues/programs/stormwater/smconstfaq.shtml)

3. Area of soil disturbance includes but is not limited to:
- Clearing of the land both for access (i.e. access roads) to the site as well as preparing the site for constructing the project,
  - constructing access roads to the site,
  - grading of the project site in total,

- *equipment staging area, maintenance area, and construction easement if they occur atop a soil surface which has not been included in the calculation for area of soil disturbance,*
- *material and/or soil stockpiles if atop a soil surface (not if atop an impervious surface such as concrete or asphalt),*
- *area of asphalt or concrete pavement removal if it is removed entirely to the soil surface,*
- *area that is related to demolition and removal of existing structures if that demolition and removal is to the soil surface,*
- *concrete truck clean-out areas if atop a soil surface*

*Small construction activity (one or two homes) will not see the extensive grading operation that occurs with major housing developments. However, any clearing or grading activity would need to enter into calculating the amount of disturbed soil. If no clearing or grading takes place then the building area footprint must be included. This includes areas of soil disturbance to construct driveways and parking stalls. Areas for stockpiling soil and material as well as the areas dedicated to parking construction equipment and trucks would be included in the calculation if the activity takes place atop a soil surface. Construction of access roads also enters into the calculation of soil disturbance area.*

Again, this example is of little use for determining if highway planting activities produce soil disturbance. It is useful for determining DSA for roadway construction activities even though it is an FAQ for the previous Permit.

*Clearing and Grubbing:*

The CGP does not define clearing and grubbing but an industry recognized reference, *Means Illustrated Construction Dictionary*, provides the following:

***Clearing** The removal of trees, vegetation, or other obstructions from an area of land.*

***Grub(bing)** In site work, the clearing of stumps, roots, trees, bushes, and undergrowth.*

Again, these activities are **not part of highway planting work** as all major clearing and grubbing work has happened before the highway planting contract begins. Any vegetation removal to be done is by mowing, string trimmer, or included in the soil preparation. Occasionally, there may be a minor amount of tree and shrub removal.

*Not DSA but Agricultural Operations:*

Another item from Section I.C. appears to exclude the various operations that make up the majority of highway planting work:

24. *Disturbances to land surfaces solely related to agricultural operations such as disking, harrowing, terracing and leveling, and soil preparation.*

In addition to the listed examples, nearly everything associated with highway planting work has an agricultural equivalent. Cultivation to incorporate compost and other soil amendments is part of soil preparation. Other examples include the installation of irrigation equipment to foster plant growth, digging holes for container grown plants, drill seeding, and the installation of mulches for soil cover.

Historically, highway planting projects have sought coverage under the CGP and developed a storm water pollution prevention plan (SWPPP) because of the presumed soil disturbance. Usually, the disturbed soil area (DSA) was calculated as a percentage of total project area for the operations described above. If these operations are considered agricultural, it follows that highway planting projects do not have DSA under the new CGP.

#### Common Plan of Development:

There is a persistent argument that Caltrans' highway planting contracts are merely the final stabilization phase of a single construction project that may be made up of several separate contracts. This idea has continued to exist because there continues to be confusion on what is meant by a "common plan of development." The new CGP gives some clarity on this issue by providing the following definition from Appendix 5 "Glossary:"

***Common Plan of Development:** Generally a contiguous area where multiple, distinct construction activities may be taking place at different times under one plan. A plan is generally defined as any piece of documentation or physical demarcation that indicates that construction activities may occur on a common plot. Such documentation could consist of a tract map, parcel map, demolition plans, grading plans or contract documents. Any of these documents could delineate the boundaries of a common plan area. However, broad planning documents, such as land use master plans, conceptual master plans, or broad-based CEQA or NEPA documents that identify potential projects for an agency or facility are not considered common plans of development.*

From this definition, it seems clear that only the contract documents for Caltrans' projects, highway planting, roadway, or other; should be used to determine the common plan of development. The use of master project reports and environmental documents, corridor studies, or freeway agreements are not to be used to link several contracts into a common plan of development.

#### **No Conflict between a Routine Maintenance Activity and a Caltrans Maintenance Project**

Although highway planting projects meet the CGP's definition of routine maintenance, major planting installation work is not considered maintenance by Caltrans. The Division of Maintenance will not be performing or funding the work described in typical highway planting contracts. In addition to highway planting projects, the following also qualify as routine maintenance under the CGP including HMA overlays, slab replacement, culvert replacement, video camera installations, and some seismic retrofit work.

#### **Roadway Work with Planting and Irrigation**

Contracts for roadway work that include landscaping activities will continue to be subject to the CGP as the planting and irrigation installation is considered final stabilization for the topography

alteration needed to build the roadway. However, the plant establishment period is considered a maintenance period under the CGP and should be excluded from construction duration. When performing Risk Level Determination (RLD), specifically the rainfall erosivity “R” calculation, only include the begin and end dates to do the roadway work and the landscape installation work. Do not include the plant establishment period.

#### SWDR Narrative:

Since the Storm Water Data Report (SWDR) documents all the decisions related to stormwater, it is appropriate to explain why the new CGP does not apply and that the project will be constructed under a WPCP. At a minimum, all SWDRs for highway planting projects should include language to clearly state this fact. The following is example language:

*This project will not seek coverage under the new CGP because: 1) the work meets the CGP’s definition of routine maintenance; 2) the activities are agricultural and do not qualify as land disturbance. No work is included that will alter the original line and grade, hydraulic capacity, or original purpose of the facility. The work performed will protect the roadway facility by providing long-term erosion and sediment control through revegetation. Disturbances to land surfaces are solely related to agricultural operations such as assembly of irrigation equipment, cultivation to incorporate compost and soil amendments, installation of plant materials, and spreading of mulch to protect soil surfaces.*

*Final Stabilization will be achieved once planting materials are installed and mulches are in place. At that time, the site will not pose any additional sediment discharge risk than it did prior to the commencement of construction activity.*

#### **Risk to Caltrans**

- 1) Failure to exclude highway planting projects from CGP coverage will cause increased project costs for stormwater permit compliance and demand more resources from Design and Construction staff for project administration. This includes:
  - a) The DSA for highway planting activities will be the same as for grading and excavation activities and will encompass all areas of highway planting work. The distinction is absolute since the CGP does not allow for pro-rating different types of DSA.
  - b) Risk level determination (RLD) must be done for highway planting jobs just as it is done for roadway construction jobs. Results will be the same as for roadway jobs with risk levels of 1, 2, or 3 and required bioassessment for large jobs. Please note that the RLD should only be for the installation period and not for the plant establishment period.
  - c) Contracts would include items for CGP compliance for monitoring and reporting such as Storm Water Pollution Prevention Plan (SWPPP), Stormwater Sampling Days, Stormwater Annual Report, and Rain Event Action Plan (REAP).
  - d) Documentation for filing a Notice of Termination (NOT) must be prepared. This includes developing a method for demonstrating final stabilization. This method may include the use of RUSLE2.
  - e) SWDR long forms would be expected as DSA will typically exceed 5 acres.
  - f) EPA erosivity waiver will not be allowed as DSA will typically exceed 5 acres.

- g) Project costs could increase by approximately \$60,000 per year to cover the activities described above.
- 2) Excluding all Highway Planting projects from CGP coverage may not be acceptable to the State Water Resources Control Board (SWRCB) or the Regional Water Quality Control Boards (RWQCBs). If the RWQCB provides a written request for the highway planting projects to be covered under the CGP and a risk level determination be performed, the Department's guidance for risk level determination should be followed.

**Note: When completing a risk level determination, the duration of the project should only include the installation period and not the plant establishment period. This applies directly to calculating the project's erosivity (R) value.**

### **Benefit to Caltrans**

Excluding Highway Planting projects from CGP coverage will provide cost savings by eliminating monitoring and reporting activities for projects that have historically been considered low risk by Caltrans, the SWRCB, and the RWQCBs. Particular benefits include:

- 1) The projects can be built under Water Pollution Control Programs (WPCPs).
- 2) Demonstrating final stabilization of the highway planting project will not be necessary as filing a Notice of Termination (NOT) only applies to projects covered under the CGP.
- 3) Even though there are only about a dozen eligible highway planting projects per year, there will be considerable cost savings since contract items added for CGP compliance will not be required. This is especially true for the jobs that would have been designated as risk level 2 or 3. BMPs to protect water quality will still be required and will primarily consist of erosion and sediment control practices.

### **Example Scenarios**

The following projects include highway planting and represent common situations where the arguments presented in this paper can be applied. For each, a recommendation is given that considers the implications of the CGP.

- 1) **City of Wonder Replacement Planting Project.** Upon completion of the roadway contract that replaced the Paradise Expressway overpass at the Garden Freeway, a new contract will replace approximately 52 acres of landscaping. This interchange serves as a gateway to the City of Wonder. It will take approximately 250 working days to construct the irrigation facilities and install the planting. A 3 year plant establishment period is will follow the installation. If DSA is estimated at 15 percent of the total area, this project will disturb 7.8 acres of soil.

**Recommendation:** This replacement planting project is considered routine maintenance under the CGP since: 1) it is a separate contract from the roadway work, and 2) it does not change line, grade, hydraulic capacity or original purpose of the facility. Because it is routine maintenance under the CGP, it is not applicable to apply any method to determine DSA. This job can be constructed under a Water Pollution Control Program (WPCP) and a Storm Water Data Report (SWDR) Short Form can be used with the concurrence from the SW Coordinator.

- 2) **Blooming Desert Ramp Metering and Replacement Planting Project.** The onramps will be widened by a single lane and ramp meters installed at Blooming Desert Drive. Approximately 1.6 acres will be disturbed to widen the embankment, remove existing pavement, and realign the ramps. This will result in 0.96 acres of added net new impervious surface. The widening will impact about 1.8 acres of existing landscaping. However, because of the overall degraded condition of the existing landscaping, a replacement planting project has been programmed for several years at this location. For convenience, these two projects are combined under a single contract. The replacement planting work will add 12 acres. The work is expected to begin in May and take 80 days to do the widening, 80 days to do the replacement planting, and 750 days (3 years) to complete plant establishment. An EPA Erosivity Waiver was originally considered for the ramp metering job but was abandoned when the projects were combined because: 1) its footprint was larger than 5 acres, 2) the R-factor was greater than 5 because construction would take more than 3 years.

**Recommendation:** The combined work under the contract cannot be considered routine maintenance because of the ramp widening work. The DSA from the ramp widening work is more than an acre requiring a SWPPP under the CGP. However, since the project's DSA, not the total foot print, is less than 5 acres, an Erosivity Waiver should be considered. The waiver is possible since the job begins in May and construction would be complete in 160 days with an R-factor of 4.6. The 3-year plant establishment period is not counted as construction work. Consequently, the job could be built using a WPCP instead of a SWPPP. A SWDR Short Form could also be used as treatment BMPs are not required (the net new impervious is less than an acre). Short Form concurrence is needed from the SW Coordinator because the DSA is greater than an acre.

- 3) **Utopian Interchange Project.** This is one of several projects that will widen the Enterprise Freeway, replace surface road overpasses, realign ramps, and replace planting. This contract will replace the structures, reconfigure the interchange, and replace the landscape planting at Utopian Avenue. This work will disturb approximately 49 acres and take 2 years to complete. A 3-year plant establishment period will follow.

**Recommendation:** This job requires a SWPPP and a SWDR Long Form. The duration of the plant establishment period should not included within begin and end dates for doing the risk level determination for this project. For this particular job, using 5 years instead of 2 years would result in risk level 3 causing increased monitoring costs and bioassessment requirements. The Notice of Termination (NOT) should be filed once the planting installation is complete rather than waiting for the end of the plant establishment period.