

Last month's issue discussed project planning activities to incorporate significant storm water related costs into the overall project budget during programming. This issue discusses storm water objectives and activities as the project moves from planning into geometric development (Milestones 200-220). This issue also rolls out a new feature, "Hot Topics," to address issues that are of immediate concern to Caltrans.

Part I: Design Activities during Geometric Development (Milestones 200-220)

The primary objectives during this phase are to:

- Determine if treatment controls need to be considered.
- Determine or refine right-of-way requirements for treatment controls and evaluate the feasibility of including such controls in the project.
- Incorporate feasible treatment controls into the geometric development prior to detailed right-of-way engineering.
- Develop the geometric alignment to avoid or minimize impacts on existing slopes.

Refer to sections 2.3 and 4.6 of the Planning and Design Staff Guide (PDSG) for guidance and sizing information. Essentially, repeat the procedures performed during project planning, as outlined in last month's issue, except with the more detailed information that will be available during geometric development.

As the geometric alignment is refined during the



Treatment controls need to be evaluated early in the planning and design process so that right-of-way and alignment considerations can be incorporated into the project design.

initial design phase, evaluate the best locations for treatment controls. Avoid impacts to existing slopes and where practical, minimize the steepness of new slopes. See Section 4.2.2 of the PDSG for additional guidance.

Also, compile and prepare drainage area information that will be needed as the project moves into detailed design:

- a) The drainage boundary and tributary area
- b) Drainage patterns for overland flow, and
- c) Existing and planned drainage facilities

Most of this information will be used by Caltrans to design permanent storm water controls and evaluate permit requirements and by the contractor when preparing the Storm Water Pollution Prevention Plan (SWPPP) or Water Pollution Control Program (WPCP).

Incorporating Storm Water Pollution Control into the PS&E (Part I)

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This bulletin is prepared monthly as an information resource on storm water quality issues related to the planning and design of transportation infrastructure.

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Final Stabilization

The State Water Resources Control Board (SWRCB) recently released the next draft of the NPDES General Permit for construction activities. If adopted without changes, the new permit will add detailed final stabilization requirements for filing a Notice of Termination (NOT) when the project is complete, including:

- All disturbed areas of the construction site must be stabilized by:
 - a) A uniform vegetative cover where 70 percent coverage has been established, or
 - b) Equivalent stabilization measures such as erosion control blankets, channel liners, fiber matrices, geotextiles, or other erosion resistant soil coverings or treatments.
- Where background native vegetation covers less than 100 percent of the surface, such as

in arid areas, the 70 percent coverage criterion is adjusted to 70 percent of the original native coverage.

- Structural controls, such as energy dissipaters and streambank stabilization, shall be included to prevent channel erosion whenever applicable.

Future Caltrans projects and projects underway when the new general permit is adopted will likely be held to these standards. Follow the guidelines in PDSG Section 4.4 for conferring with District Landscape Architecture (slopes steeper than 1:4) and District Maintenance (slopes steeper than 1:2) to ensure that these standards are met. For further reading, a copy of the draft permit can be obtained from the SWRCB at:

<http://www.swrcb.ca.gov/html/stormwtr.html>.