**Treatment BMPs
Checklist T-1, Part 4**

Prepared by: Date: District-Co-Route:

PM: Project ID/EA: RWQCB:

***Detention Devices***

***Feasibility***

1. Is there sufficient head to prevent objectionable backwater conditions in the upstream drainage systems? [ ]  Yes [ ]  No
2. Is basin invert ≥ 5 ft above seasonally high groundwater or can it be designed with an impermeable liner? (Note: If an impermeable liner is used, the seasonally high groundwater elevation must not encroach within 12 inches of the invert.) [ ]  Yes [ ]  No

If No to any question above, then Detention Devices are not feasible.

1. If the Detention Device is being used to capture traction sand, is the total volume of the device at least equal to the WQV designed to be treated plus the anticipated volume of traction sand, while maintaining a minimum 12-inch freeboard (1 ft)? [ ]  Yes [ ]  No

If No, then Detention Devices are not feasible.

1. Does adequate area exist within the RW to place Detention Device? [ ]  Yes [ ]  No

If Yes, continue to the Design Elements section. If No, continue to Question 5.

1. If adequate area does not exist within RW, can suitable, additional RW be acquired to site Detention Device and how much RW would be needed to treat WQV? \_\_\_\_\_\_\_\_\_ acres [ ]  Yes [ ]  No

If Yes, continue to the Design Elements section. If No, continue to Question 6.

1. If adequate area cannot be obtained, document in Section 6 of the SWDR that the inability to obtain adequate area prevents the incorporation of this Treatment BMP into the project. [ ]  Complete

***Design Elements***

**\* Required Design Element –** A “Yes” response to these questions is required to further the consideration of this BMP into the project design. Document a “No” response in Section 6 of the SWDR to describe why this Treatment BMP cannot be included into the project design.

**\*\* Recommended Design Element –** A “Yes” response is preferred for these questions, but not required for incorporation into a project design.

1. Has the location of the Detention Device been evaluated for any effects to the adjacent roadway and subgrade? \* [ ]  Yes [ ]  No
2. Can a minimum freeboard of 12 inches be provided above the overflow event elevation? \* [ ]  Yes [ ]  No
3. Is an upstream bypass or overflow outlet provided? \* [ ]  Yes [ ]  No
4. Is the drawdown time of the Detention Device a maximum of 96 hours? \* [ ]  Yes [ ]  No
5. Is the basin outlet designed to minimize clogging (minimum outlet orifice diameter of 0.5 inches)? \* [ ]  Yes [ ]  No
6. Are the inlet and outlet structures designed to prevent scour and re-suspension of settled materials, and to enhance quiescent conditions? \* [ ]  Yes [ ]  No
7. Can vegetation be established in an earthen basin at the invert and on the side slopes for erosion control and to minimize re-suspension? Otherwise include rock or similar protective system. Note: Detention Basins may be lined, in which case no vegetation would be required for lined areas.\* [ ]  Yes [ ]  No
8. Has sufficient access for maintenance been provided? \* [ ]  Yes [ ]  No
9. Is the side slope 4:1 (h:v) or flatter for interior slopes? \*\* [ ]  Yes [ ]  No

(Note: Side slopes up to 3:1 (h:v) allowed with approval by District Maintenance.)

1. If significant sediment is expected from nearby slopes, can the Detention Device be designed with additional volume equal to the expected annual loading? \*\* [ ]  Yes [ ]  No
2. Is flow path as long as possible (> 2:1 length to width ratio at WQV elevation is recommended)? \*\* [ ]  Yes [ ]  No
3. Does the CDA for the device have trash treatment requirements?\*\* [ ]  Yes [ ]  No

If Yes, design and certify as Multi Benefit Trash Treatment (*See Caltrans Multi Benefit Treatment BMP Trash Full Capture Requirements Design Guidance*).