TECHNICAL MEMORANDUM

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TO: Bay Area Municipal Stormwater Collaborative Steering Committee

COPY TO:

SUBJECT: **Construction Site Control Program Enhancement Options for Demolition Sites Subject to the PCBs Management Program**

This memorandum transmits the construction site enhancement options deliverable of the Bay Area Municipal Stormwater Collaborative (BAMSC) Managing Project of Regional Benefit*: PCBs during Building Demolition – Guidance Update*.

This work product provides guidance for Permittees to identify appropriate construction site control program enhancements to minimize migration of PCBs into the storm drainage system during demolition in accordance with the requirements of the Municipal Regional Stormwater Permit (MRP 3.0) Provision C.12.g.

MRP 3.0 provides latitude for Permittees to select the enhancements best suited to their C.6 Construction Site Control Program. The options identified in this memorandum provide Permittees with a robust but flexible framework that allows for tailoring the enhancements to their C.6 Construction Site Control Programs for demolition sites subject to the PCBs Management Program. The options were reviewed by the Regional Project Workgroup and subsequently by the Countywide Programs and updated based on the input provided.

Per the requirements of MRP 3.0, the enhancements must be implemented no later than July 1, 2023, and rainy season inspections must commence with the 2023 rainy season.

Purpose and Background

In accordance with MRP 2.0 requirements, Permittees began requiring applicants for building demolition permits (or the equivalent) to evaluate the potential for polychlorinated biphenyl (PCBs) in select building materials (PCBs in Building Material Program). The evaluation process was outlined in the *PCBs in Priority Building Materials: Model Screening Assessment Applicant Package* (BASMAA 2018, Revised 2019). This process defines the buildings that must be evaluated (Applicable Structures[1]) and details the protocol to screen building materials for PCBs, resulting in the removal of priority PCBs-containing building materials prior to demolition.

MRP 3.0 Provision C.12.g requires that Permittees inspect demolition sites subject to the PCBs Management Program[2] during demolition (C.12.g.ii (3)) beginning with the 2023 rainy season (October 1-April 30). Provision C.12.g.ii (4) requires that Permittees enhance their construction site control programs to minimize migration of PCBs into the municipal separate storm sewer system (MS4) [3] during demolition beginning July 1, 2023.

This document outlines options for Permittees to enhance their construction site control programs to meet the requirements of MRP 3.0 Provisions C.12.g.ii (3) and (4), which state (emphasis added):

> *C.12.g.ii (3) Beginning the 2023 rainy season,* ***Permittees shall inspect demolition sites with applicable structures containing building materials with PCBs concentrations of 50 ppm or greater*** *pursuant to Provision C.6 to ensure that effective construction pollutant controls are used to prevent discharge into the MS4.*
>
> *C.12.g.ii (4)* ***Permittees shall enhance their construction site control program to minimize migration of PCBs into the MS4 from applicable structures containing building materials with PCBs concentrations of 50 ppm or greater*** *during demolition activities. Enhancements may include inspecting demolition sites monthly during demolition activities in the dry season (May – September) and requiring the demolition contractors to sweep the project sites and the streets around the property with street sweepers that will effectively remove sediment and dust. Implementation of enhancements shall begin no later than July 1, 2023.*

[1] Applicable Structures are defined as buildings constructed or remodeled between January 1, 1950 and December 31, 1980. Wood framed buildings and single-family residential buildings are not Applicable Structures regardless of the age of the building.

[2] For brevity, buildings subject to the PCBs Management Program are Applicable Structures containing building materials with PCBs concentrations ≥ 50 ppm.

[3] The MS4 is defined in MRP 3.0 as "A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains), as defined in 40 CFR 122.26(b)(8)…" See the MRP 3.0 Glossary for the full definition.

Construction and PCBs Control Programs Established During MRP 2.0

Permittees implement a Construction Site Control Program pursuant to MRP Provision C.6 and a program to ensure that PCBs containing materials are removed prior to the general demolition of applicable buildings (MRP Provision C.12.g).

Under the existing C.6 Construction Site Control Program, Permittees

- Require applicants for grading permits to develop, submit, and implement erosion control plans with site- and seasonally-specific best management practices (BMPs) (C.6.c and C.6.d);
- Provide wet season[4] reminders (C.6.e); and
- Inspect sites monthly during the wet season with follow-up inspections as warranted (C.6.e).

Under the PCBs in Building Material Program, Permittees require applicants to assess building materials for PCBs before issuing the demolition permit. If PCBs are detected, the applicant is responsible for properly handling and disposing of the PCBs-containing materials in accordance with state and federal laws and regulations before commencing general demolition (e.g., knocking down the structures).[5]

Construction Program Enhancement Options for Demolition Sites Subject to the PCBs Management Program

MRP 3.0 provides latitude for Permittees to select the enhancements best suited to their C.6 Construction Site Control Programs.

Table 1 summarizes the existing and required actions for the PCBs Management Program. The main addition is a wet season inspection of demolition sites subject to the PCBs Management Program. Note that if a project is otherwise subject to the C.6 construction site inspections, the requirement to conduct monthly wet season inspections applies.

The menu presented in **Table 2** provides inspection and other site control enhancement options for Permittees' consideration.

To address the requirements of C.12.g, Permittees need to implement the controls in **Table 1 and** select a set of options to enhance their Construction Site Control Program for demolition sites subject to the PCBs Management Program from **Table 2**.

The options provided in **Table 2** were identified by considering: existing C.6 Construction Site Control Program requirements; recommendations and requirements included in MRP 3.0; and other regulatory programs, such as the requirements in the 2022 Construction Stormwater General Permit (CGP).[6]

[4] Per MRP 3.0 Provision C.6.e, for the purposes of inspections, wet season is defined as October 1 through April 30.
[5] Removal of PCBs-containing materials is typically defined as part of the demolition phase, so this document uses the term *general demolition* to characterize the dismantling or knocking down of the structure that occurs following the PCBs-removal action.
[6] Order 2022-0057-DWQ.

It is up to each Permittee to select their enhancement option(s). For example, depending on a particular program, a Permittee may prefer to enhance their Construction Site Control Program by augmenting the number and type of inspections performed by municipal inspectors, while for other Permittees it may be preferable to specify BMPs for the applicant to implement. Once selected, Permittees will need to revise their Construction Site Control Program to implement the selected enhancement(s).

Table 3 provides a supplemental set of BMPs that could be established if a municipality chooses to require a specific set of BMPs for demolition projects, in accordance with the corresponding option provided in **Table 2**.

Overall, the process of selecting options from these tables is intended to provide Permittees with a robust but flexible framework that allows for tailoring the enhancements to their C.6 Construction Site Control Programs.

Table 1. C.12.g Baseline Controls for Demolition Sites Subject to the PCBs Management Program[7] (Implement all Controls)

Action	Practice	Notes
General Demolition Wet Season[8] Inspections	• Inspect demolition projects once during general demolition[9] during the wet season.	• Required by C.12.g ii (3). • Inspection would focus on the demolition activity and stormwater BMPs implemented for this activity. • If the site falls under the C.6.e Construction Site Inspection Program (i.e., ≥ 1 acre, hillside site, or high priority site) monthly inspections also apply.
Complete Any PCBs Abatement Action Before General Demolition Activities	• Require applicants to test the priority building materials for PCBs before demolition and to properly handle and dispose of any PCBs-containing materials in accordance with state and federal laws and regulations.	• Required by C.12.g.ii (1) • The PCBs in Building Materials Program requires testing of priority building materials for PCBs before demolition. If PCBs are detected, the materials must be properly handled and disposed in accordance with state and federal laws and regulations.
Construction Site Control Program BMP Requirements	• Review Erosion Control Plan BMPs related to the demolition phase submitted by applicant.	• Required by C.6.c and C.6.d. • Continue to implement the municipal program for reviewing applicant Erosion Control Plan and BMPs submittals.

[7] For brevity, this means demolition sites with applicable structures containing building materials with PCBs concentrations of 50 ppm or greater. See the *PCBs in Priority Building Materials: Model Screening Assessment Applicant Package* for additional detail on applicable structures.
[8] Per MRP 3.0 Provision C.6.e, for the purposes of inspections, wet season is defined as October 1 through April 30.
[9] Removal of PCBs-containing materials is typically defined as part of the demolition phase, so this table uses the term *general demolition* to characterize the dismantling or knocking down of the structure that occurs following the PCBs-removal action.

Table 2. C.12.g ii (4) Construction Site Control Program Enhancement Options for Demolition Sites Subject to the PCBs Management Program[10]
(Select an Appropriate Set of Options for your Municipality)

Enhancement Options	Practice	Notes
Municipal Inspection Options		
1. Demolition Phase Dry Season Inspection(s)[11]	• Dry season inspection(s) of demolition projects during general demolition.[12]	• This would be an enhanced effort;[13] dry season inspections are not required for C.6 projects. • Inspection frequency would be determined by the municipality. • Inspection(s) would focus on the demolition activity and BMPs implemented for this activity.
2. Demolition Phase Wet Season[14] Inspections	• Additional wet season inspections during general demolition.	• This would be an enhanced effort beyond the required single wet season inspection identified in **Table 1**. • Increased inspection frequency would be determined by the municipality. • Inspection(s) would focus on the demolition activity and BMPs implemented for this activity.
3. Pre-Con Inspection	• Inspection of demolition projects prior to commencement of the general demolition.	• This would be an enhanced effort; pre-con inspections are not required for C.6 projects. • Inspection would focus on the preparation of the demolition site and the BMPs planned to be implemented, and general stormwater awareness.

[10] For brevity, this means demolition sites with applicable structures containing building materials with PCBs concentrations of 50 ppm or greater. See the *PCBs in Priority Building Materials: Model Screening Assessment Applicant Package* for additional detail on applicable structures.
[11] The dry season is May 1 through September 30; see footnote 13.
[12] Removal of PCBs-containing materials is typically defined as part of the demolition phase, so this table uses the term *general demolition* to characterize the dismantling or knocking down of the structure that occurs following the PCBs-removal action.
[13] The term enhanced effort is relative to the MRP requirements for C.6 or C.12. Some municipalities may have programs that go beyond the MRP requirements. In this case these existing efforts would be characterized as enhancements relative to C.12.g (4) because they exceed the MRP requirements.
[14] Per MRP Provision C.6.e, for the purposes of inspections, wet season is defined as October 1 through April 30.

Table 2. C.12.g ii (4) Construction Site Control Program Enhancement Options for Demolition Sites Subject to the PCBs Management Program[10]
(Select an Appropriate Set of Options for your Municipality)

Enhancement Options	Practice	Notes
Specified Applicant BMP Options		
1. Street Sweeping – Demolition Phase	• Require daily sweeping of project and adjacent streets using vacuum or regenerative air sweepers to effectively remove sediment, dust, and debris throughout the general demolition phase.	• Part of C.6 sediment control BMP suite. • Adds minimum frequency. • Limits enhancement to the highest risk period.
2. Street Sweeping – All Phases	• Require daily sweeping of project and adjacent streets throughout the project using vacuum or regenerative air sweepers to effectively remove sediment, dust, and debris.	• Part of sediment control BMP suite. • Adds minimum frequency. • Enhancement throughout project to address potential pollutant halo effect.
3. Cover Demolition Debris – Wet Season	• Cover demolition debris with an impermeable liner (or equivalent) during wet season or when rain is forecast.	• Part of C.6 good site management BMP suite. • CGP minimum BMP for demolition sites. • Enhancement specifies covering demolition debris during the wet season.
4. Cover Demolition Debris – Wet and Dry Season	• Cover demolition debris with an impermeable liner (or equivalent) at all times.	• Part of C.6 good site management BMP suite. • Enhancement specifies covering demolition debris at all times to address both wind and water migration.
5. Specified BMPs for Demolition Projects	• Establishing a set of BMP requirements for demolition projects. See **Table 3** for an example set of BMPs. • Review Erosion Control Plans to ensure BMPs are included.	• MRP requires submittal and approval of Erosion Control Plans for C.6 regulated projects. • MRP requires use of site-specific, seasonally and phase appropriate BMPs. • This enhancement would specify BMPs for projects subject to the PCBs Management Program based on the C.6 BMP categories.

Table 3. Example Set BMPs Options for Demolition Project Erosion Control Plans (See Table 2 Option 5)

C.6 BMP Category	Specific BMP
Erosion Control	Provide temporary soil stabilization with hydroseeding, soil binders, or erosion control blankets for all disturbed soils within 14-days of the area becoming inactive.
Erosion Control	Provide temporary soil stabilization with erosion control blankets or geotextiles disturbed soils in the demolition zone when rain is predicted.
Erosion Control	Use water and/or dust palliatives to manage dust during the demolition process. Dust control water must be managed to prevent runoff or collected for proper disposal.
Run-on and Runoff Control	Use earth dikes, drainage swales and/or other controls to direct run-on away from demolition site and debris storage areas.
Run-on and Runoff Control	Use earth dikes, drainage swales and/or other controls to direct runoff from the site to sediment controls.
Sediment Control	Install site perimeter controls (e.g., wattles, silt fences) around the project site.
Sediment Control	Install perimeter controls (e.g., wattles, silt fences) around the demolition area and debris management areas.
Sediment Control	Install stabilized entrances to minimize sediment track-out.
Sediment Control	Sweep streets and pavement on the project site and adjacent streets using vacuum or regenerative air sweepers to effectively remove sediment, dust, and debris.
Sediment Control	Install inlet protection at all on-site and off-site storm drain inlets that receive project runoff.
Good Site Management Dust Management	Use manual tools or tools that employ misters, e.g., wet sanders to generate lower dust volumes. Water must be collected for proper disposal.
Good Site Management Dust Management	Construct work containment zones to prevent spread of potentially contaminated dust – use plastic sheeting, vacuum, and/or install a decontamination area.
Good Site Management Waste Management	Cover demolition debris with an impermeable liner or place into covered leak tight debris bins.
Good Site Management Waste Management	Properly dispose of wastes (debris, liquid, and BMPs). Maintain waste disposal records (e.g., manifests, bills of lading) and submit to the local agency and EPA as required.
Good Site Management Materials Management	Decontaminate equipment before storing outdoors or using in other parts of the project.
Non-Stormwater Management	Contain decontamination water in covered leak-tight containers inside a building or inside secondary containment.