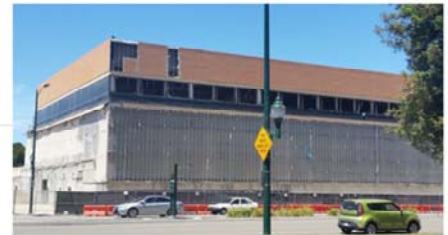


Managing PCBs Prior to Building Demolition

How to Comply with New Regional Permit Requirements



Presentation for Industrial Sector Representatives, 2018-2019

The Regional Water Board has new requirements for many Bay Area stormwater management agencies, requiring the management of PCBs prior to building demolition. Today we will describe the requirements and the steps for compliance.

Today's Presentation

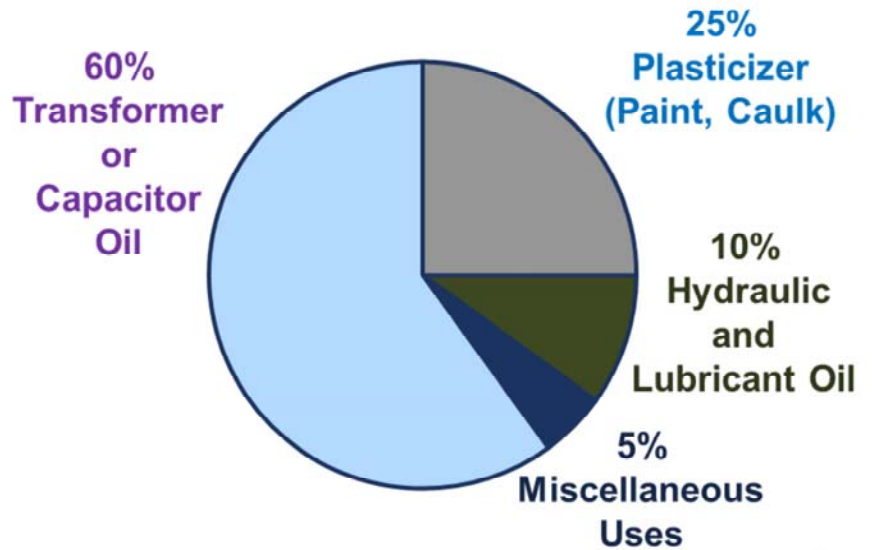
- Introduction
 - PCBs in SF Bay
 - Regulatory efforts to reduce additional PCB loads
- New requirements prior to building demolition
 - Identify and quantify priority building materials prior to demolition
- Steps to comply
 - Application process
 - What are the “priority” materials?
 - What are the sampling and analysis requirements?
 - What else must building owners be aware of?
- Summary

2

Here are the topics for today's presentation.

PCBs Were Manufactured From 1929 to 1979

Due to their chemical stability, PCBs were widely used during this period



Manufacturing of PCBs was discontinued in 1979.

PCBs in the Bay May Impact Human Health

- San Francisco Bay is impaired by PCBs concentrations in fish
- Concentrations increase as you move up the food chain
- Exposure results in cancer risk and other health concerns



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What is the problem with PCBs in San Francisco Bay?

Read bullet 1 - The impairment refers to sport fishing and wildlife habitats beneficial uses of the Bay.

Read bullet 2 - That is, predator species accumulate higher concentrations of PCBs in their bodies than are in the prey they consume.

Read bullet 3 - The main threat from PCBs results from the consumption of fish residing in the Bay. This consumption increases the risk of cancer to people who consume bay fish.

Many Bay Fish Are Not Safe to Eat



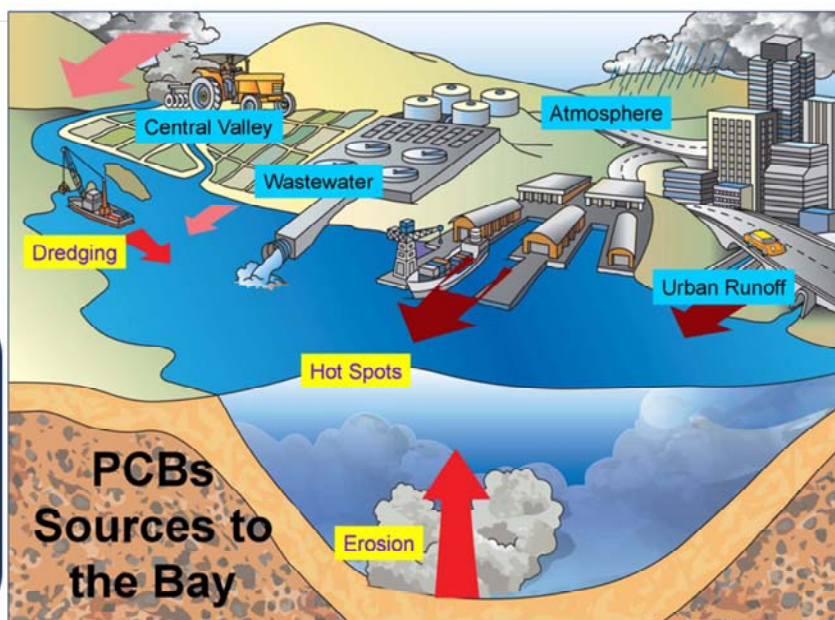
Fish consumption advisories led to the development of a pollution “diet” for PCBs known as a Total Maximum Daily Load (TMDL)

- Health advisory 1994, PCBs in certain fish that people like to catch from the Bay and eat.
- Under the Clean Water Act a water body that is not fishable, swimmable, or drinkable considered impaired.
- In Water Board speak, this means SF Bay is impaired by PCBs (it is not “fishable”)
- When a water body is “impaired” the CWA requires that the Water Board prepare a TMDL, which is a plan for reducing pollutants & achieving water quality objectives.
- In 2008, the Water Board completed that TMDL.

The SF Bay TMDL Identified Many Legacy Sources

- The TMDL analyzed all legacy sources
- Stormwater was identified as the largest source

- TMDL seeks 90% reduction in stormwater sources
- Building demolition was identified as a major source to urban stormwater



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Stormwater mobilizes residual PCBs from the watershed

Because PCBs are very stable, it is still contained and measurable in many materials

This is where our watershed may differ from others in the USA that are also impaired from PCBs. In our case, it is a highly urbanized area with sources that are unique to our location (e.g. shipping channel dredging).

We also have a Bay, rather than a river, as a receiving water, so that impacts whether PCBs in soil settle into the sediment or move/ travel downstream.

Building demolition was identified as a major source, in part based on a Bay Area building materials sampling study

40% of samples >50 ppm PCBs

20% of samples >10,000 ppm

Estimated stock of non-residential buildings building between 1954-74 6,300

Total PCBs in caulk \approx 10,500 kg

Average PCBs/building \approx 4.7 kg

Results were published in a scientific journal

Findings were consistent with other studies throughout the US and world

Results are published in a scientific journal.

Note that Toronto, which has a similar population to us, has an estimated 13,000 kg PCB mass in its building stock, a similar estimate.

How Do Activities in the Bay Area Compare to Other Regions?

- First, it depends on whether a water body is impaired by PCBs
 - Ex: Calleguas Creek (Ventura County), Ohio River, and Delaware River
- This impairment triggers the TMDL which then defines:
 - Numeric targets (for the water column, the sediment, and/or fish tissue)
 - Wasteload allocations (for identified sources)
- TMDL-based actions depend upon:
 - Whether monitoring indicates that the watershed is over its numeric targets
 - Whether identified sources are above their allocations

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There is a growing recognition of this issue and USEPA has begun incorporating PCBs assessment requirements for demolition activities in other parts of the country.

Beyond that, Actions in other areas of the country are based on which watersheds in the USA have been assigned a PCBs “diet” or Total Maximum Daily Load (TMDL). Further it depends on whether watershed segments in those regions are under/over their numeric targets, and the assignment of wasteload allocations amongst identified sources.

First, a region has to be found as impaired by PCBs (for instance: Ventura County, Ohio River, and Delaware River).

Next, the Regional Water Board, State, and EPA must agree upon numeric targets (what those watersheds can handle), identify specific PCBs sources to those waterbodies, and assign allocations to each source.

In some instances, the waterbody is monitored, and as long as it remains below the targets, other actions are not yet triggered.

For instance, in Ventura County, the Calleguas Creek Watershed is listed as impaired due to PCBs. Monitoring shows that the watershed segments are below the numeric targets and that stakeholders are beneath their respective WLAs, so there is not a trigger yet for something like this. They also have a watershed that looks different than ours – for instance lots of agriculture stakeholders in the watershed which would alter the WLAs. There are TMDLs in other regions of the country – such as the Ohio and Delaware Rivers. Their watersheds have the added complexity of being multi-state jurisdictions.

Numerous Actions Are Currently Underway to Improve Water Quality in SF Bay

- **Industry** and the **military** are cleaning up “hot-spot” sites
- **Dredgers** are testing Bay sediments and properly disposing of materials with high levels of PCBs
- Municipal **wastewater treatment** plant operators are using advanced methods to test for PCBs in treated wastewater
- **Municipalities** are reducing PCBs in runoff by:
 - Identifying source properties for abatement
 - Developing green infrastructure
 - Developing programs to manage PCBs in building materials during demolition

Monitoring and data analysis will be used to review the underlying science and efficacy of this work.

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Thus the demolition program is but one of a suite of efforts to improve water quality. These efforts are based on the science developed within the TMDL process. There will be ongoing monitoring and evaluations to review the science and the efficacy of this work (not only for the stormwater/demolition portion, but for all identified wasteload allocations). We greatly appreciate your cooperation in this effort and look forward to your continued engagement.

Note: PCBs cling to soil. That is what leads to many of these actions.

Pilots included: Evaluate managing PCBs in construction materials, such as caulk; ID areas with high PCB concentrations (in SM Co, only sites already in our databases were ID'd); Evaluate enhanced sediment removal and management practices for stormwater conveyances, such as city street sweeping, pump station cleaning; Evaluate on-site stormwater treatment retrofits; Evaluate diversion of dry weather flows and first flush runoff for treatment soil

76 Jurisdictions Share a Municipal Regional Permit (MRP) for Stormwater Management

■ Cities, counties and other entities throughout

- Alameda County
- Contra Costa County
- San Mateo County
- Santa Clara County
- The Cities of Vallejo, Fairfield and Suisun City (in Southern Solano County)



The MRP is issued by the San Francisco Bay Regional Water Quality Control Board.

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The permit requirement and remaining discussion is relevant only in these jurisdictions.

More information (if questions arise):

These MRPs are on 5-year renewable terms.

San Francisco is not included because stormwater in San Francisco is treated through their wastewater treatment plants. In these other jurisdictions, the stormwater flows directly into local creeks and rivers and ultimately into San Francisco Bay.

Excerpt from MRP Specifying the Permittees

The cities of Alameda, Albany, Berkeley, Dublin, Emeryville, Fremont, Hayward, Livermore, Newark, Oakland, Piedmont, Pleasanton, San Leandro, and Union City, Alameda County, the Alameda County Flood Control and Water Conservation District, and Zone 7 of the Alameda County Flood Control and Water Conservation District, which have joined together to form the Alameda Countywide Clean Water Program (Alameda Permittees)

The cities of Clayton, Concord, El Cerrito, Hercules, Lafayette, Martinez, Orinda, Pinole, Pittsburg, Pleasant Hill, Richmond, San Pablo, San Ramon, and Walnut Creek, the towns of Danville and Moraga, Contra Costa County, the Contra Costa County Flood Control and Water Conservation District, which have joined together to form the Contra Costa Clean Water Program (Contra Costa Permittees)

The cities of Campbell, Cupertino, Los Altos, Milpitas, Monte Sereno, Mountain View, Palo Alto, San Jose, Santa Clara, Saratoga, and Sunnyvale, the towns of Los Altos Hills and Los Gatos, the Santa Clara Valley Water District, and Santa Clara County, which have joined together to form the Santa Clara Valley Urban Runoff Pollution Prevention Program (Santa Clara Permittees)

The cities of Belmont, Brisbane, Burlingame, Daly City, East Palo Alto, Foster City, Half Moon Bay, Menlo Park, Millbrae, Pacifica, Redwood City, San Bruno, San Carlos, San Mateo, and South San Francisco, the towns of Atherton, Colma, Hillsborough, Portola Valley, and Woodside, the San Mateo County Flood Control District, and San Mateo County, which have joined together to form the San Mateo Countywide Water Pollution Prevention Program (San Mateo Permittees)

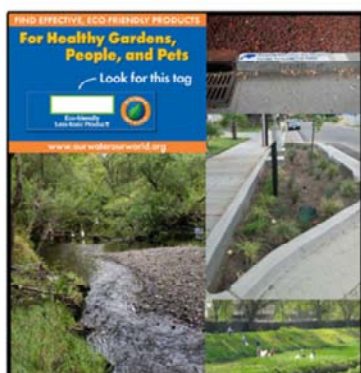
The cities of Fairfield and Suisun City, which have joined together to form the Fairfield-Suisun Urban Runoff Management Program (Fairfield-Suisun Permittees)

The City of Vallejo and the Vallejo Sanitation and Flood Control District (Vallejo Permittees)

MRP Provision C.12.f: Manage PCBs-Containing Building Materials During Demolition

California Regional Water Quality Control Board
San Francisco Bay Region
Municipal Regional Stormwater NPDES Permit

Order No. R2-2015-0049
NPDES Permit No. CAS612008
November 19, 2015



- Develop protocol to manage PCBs-containing materials during demolition
 - Ensure PCBs are not discharged to storm drains when applicable buildings are demolished
 - Include a method for identifying applicable buildings prior to demolition
 - Provide for the necessary authority to implement the program
- Applicable to buildings constructed/remodeled between Jan 1, 1950 & Dec 31, 1980
 - The requirements do not apply to wood frame buildings or single family residences
- Program shall be implemented by July 1, 2019

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The building applicability date was selected to be December 1980 rather than 1979 to recognize that while manufacturing had been discontinued, there likely continued to be stock on the shelf or in-use by contractors.

The July 2019 deadline was set by the Regional Board



Basic premise of new program is to remove PCBs before demolition:

The building materials that contain PCBs are likely to remain attached to the structure when the wrecking ball arrives. Once the building is reduced to debris it is very difficult to keep the particles out of the storm drain and harder to keep dust from spreading to impervious surfaces where it will be washed into drains and the bay later.

The best way to stop the release of PCBs is to remove them in advance of building demolition.

Removing materials of concern prior to demolition has been used for other hazardous materials, such as asbestos.

BASMAA Developed Guidance and Support Materials to Assist Municipalities With Implementation

- Identified high priority PCBs-containing building materials
- Developed a protocol for managing PCBs-containing materials during building demolition
- Developed a model regulatory process that can be incorporated into the building demolition permitting process



Bay Area
Stormwater Management
Agencies Association

- 501(c)(3) non-profit
- Represents ~100 local agencies in 7 counties
- Board of Directors (countywide stormwater program managers)
- www.BASMAA.org

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Since these are regional requirements yet to be promulgated by 76 distinct jurisdictions, BASMAA sought to create a set of model documents. Their methodology and work products were vetted by regulators, industry stakeholders, and municipal representatives.

BASMAA is not fully developing the program, just providing guidance and tools. Every muni must adopt and implement themselves.

The Focus of This Program is PCBs Runoff Prevention to Protect Water Quality

At all demolition sites, routine construction controls, including erosion and sediment controls, must be implemented per the requirements of the MRP and the statewide Construction General Permit issued by the California State Water Resources Control Board.

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The focus of the regulation is on PCBs runoff prevention to protect water quality

The regulation does not:

- Ask for municipal oversight or enforcement of human health protection standards.
- Ask for municipal oversight of PCBs abatement or remediation of materials or lands contaminated by PCBs.
- Establish remediation standards.

NOTE: Not all demo sites will need a construction general permit (CGP) – it only applies if there is ≥ 1 acre of soil disturbance.

Key Definitions

■ Demolition

- Demolition means the wrecking, razing, or tearing down of any structure. The definition is intended to be consistent with the demolition activities undertaken by contractors with a C-21 Building Moving/Demolition Contractor's License

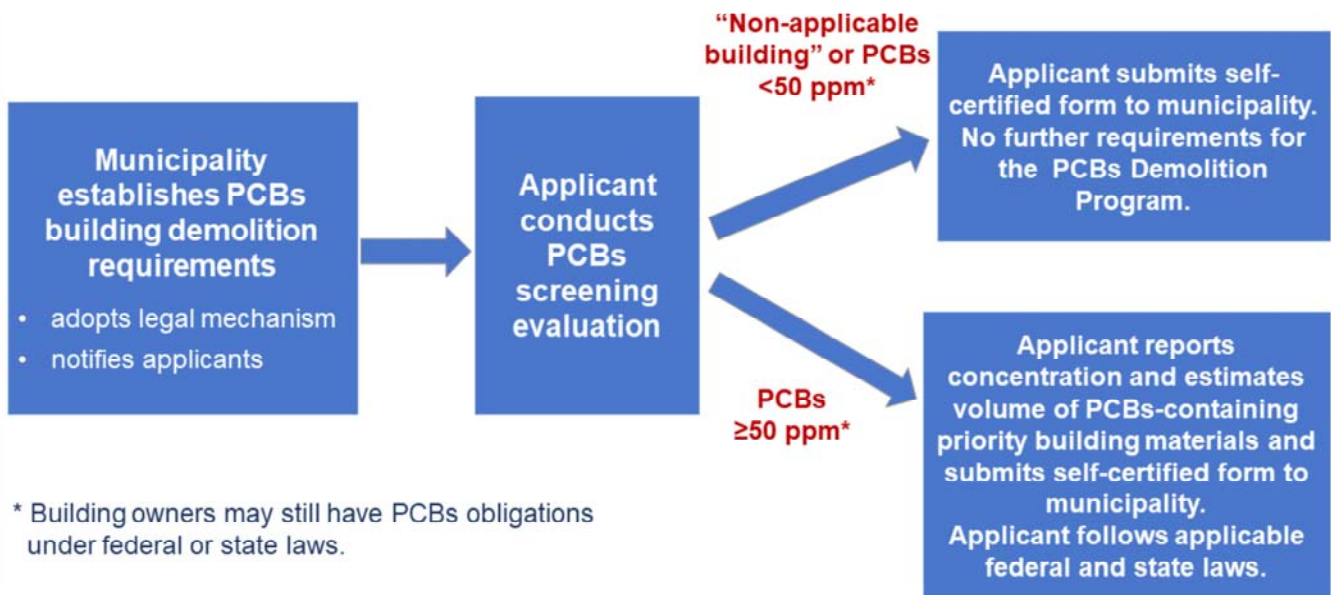
■ Priority Building Materials

- Priority building materials are: caulk; thermal or fiberglass insulation; adhesive mastics; and rubber window gaskets

■ Applicable Structures

- Applicable structures are defined as structures built or remodeled between 1950 and 1980, except that wood framed structures and single-family residential structures are not applicable structure regardless of the age of the building

Implementation Process Overview



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Municipal Role

Establish legal authority

Notify applicants about new PCBs requirements

Review applicant submittals

Confirm form and information is complete before authorizing demolition

Work with applicants to make corrections and get any missing information

Submit copies of forms directly to the countywide programs or BASMAA for compiling, processing and reporting on the PCBs data per MRP requirements

Applicant Role

Completes and submits Assessment Form

Building is "screened out" – "non-applicable building"; or PCBs <50 ppm

Building is "screened in" – found PCBs ≥50 ppm,

"Screened Out"

Demolition proceeds as normal

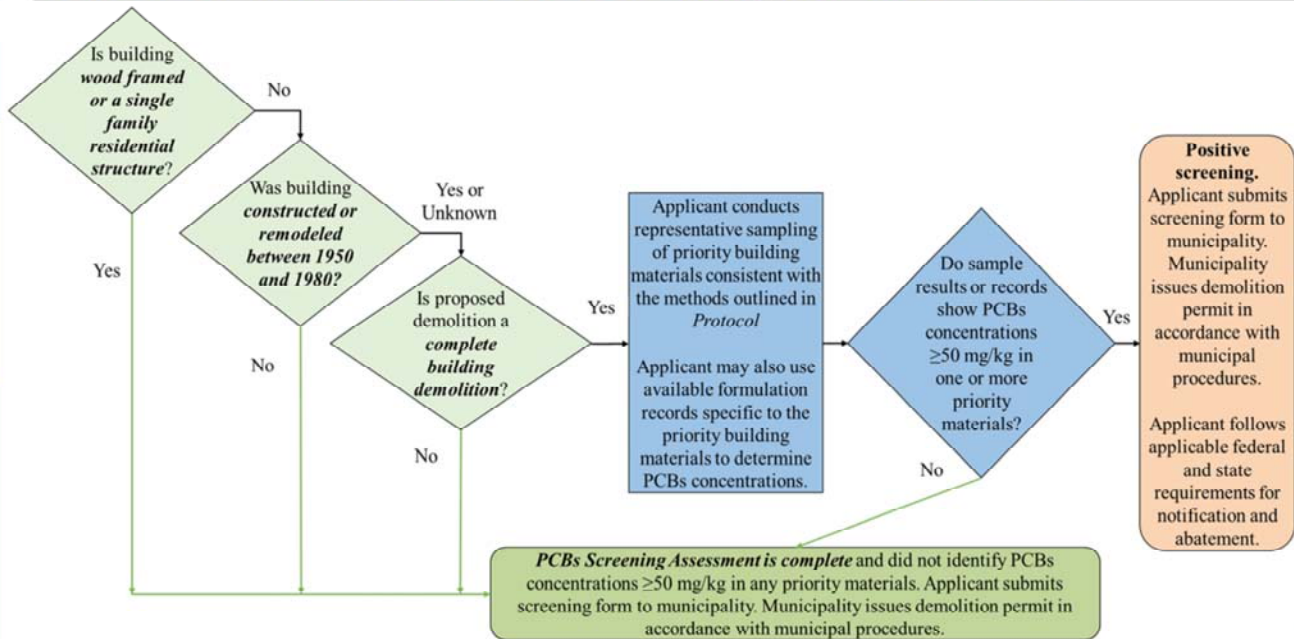
Building owners may still have PCBs obligations under federal or state laws, but this is outside the PCBs Demolition Program

"Screened In"

Applicant follows state and federal laws regarding abatement and disposal of PCBs-containing materials and wastes

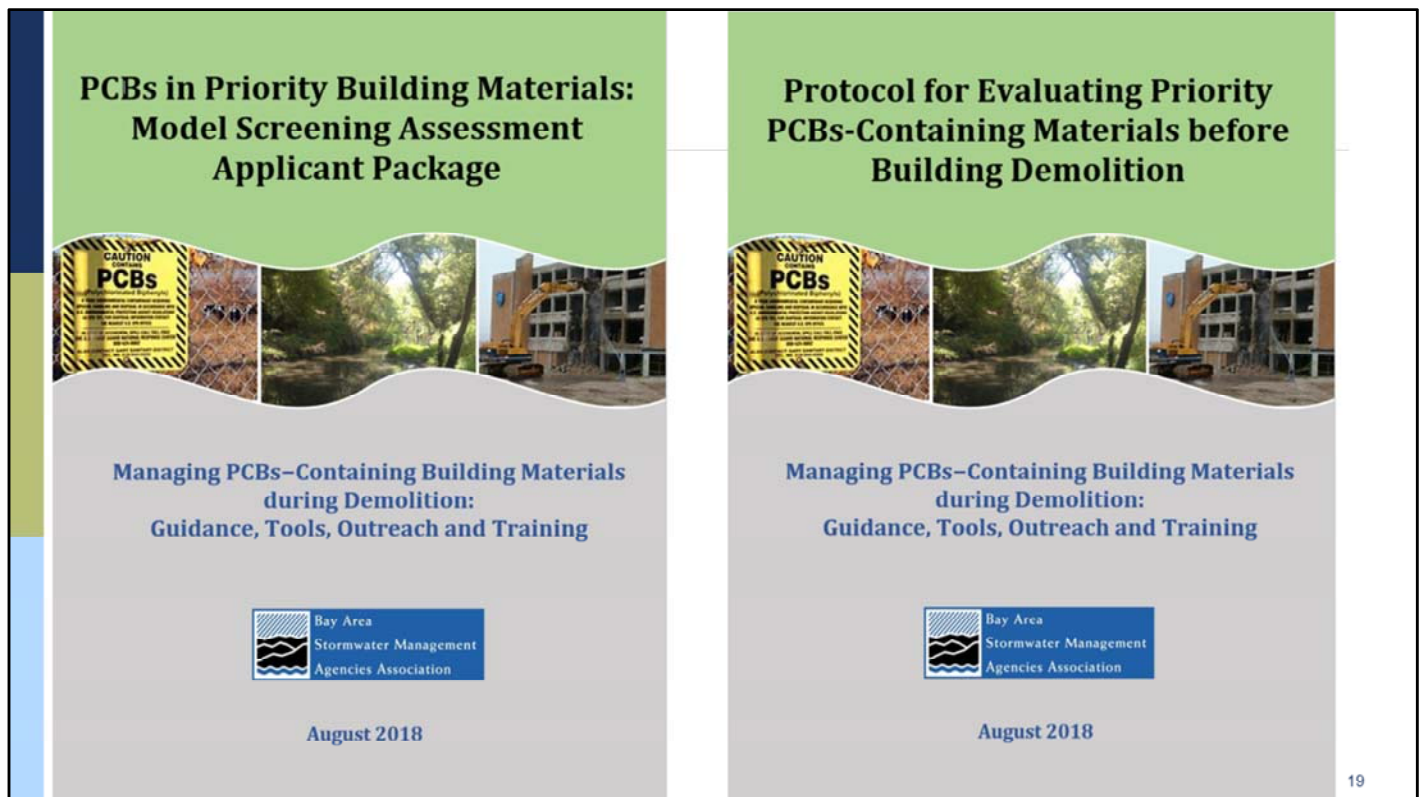
Steps to Compliance

What to Consider and Do Prior to Obtaining Demolition Permit



Applicant Role in the Process

- Completes and submits Assessment Form
 - Building is “screened out” – “non-applicable structure”; or PCBs <50 ppm
 - Building is “screened in” – found PCBs ≥50 ppm
- “Screened Out”
 - Demolition follows normal process
 - Building owners may still have PCBs obligations under federal or state laws, but this is outside the PCBs Demolition Program
- “Screened In”
 - Building owners follows state and federal laws regarding abatement and disposal of PCBs-containing materials and wastes

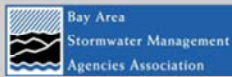


There are two companion documents available to walk you through the building assessment. One (on the left) is the application itself, which anyone planning a demolition within the affected jurisdictions must complete. The application package provides the instructions for all applicants. The second document (on the right) is the protocol for actually evaluating PCBs in priority materials. I will refer to this as “The Protocol” throughout the presentation.

PCBs in Priority Building Materials: Model Screening Assessment Applicant Package



Managing PCBs-Containing Building Materials
during Demolition:
Guidance, Tools, Outreach and Training



August 2018

Applicant Package

- Process overview
 - Background information
- Applicant instructions
 - Direction on completing the form questions
- Process flow chart
- Assessment form (Application)
- Supporting information

Model Applicant Form

PCBs Screening Assessment Form

For Municipality Use Only	
Date Received	
File #	

This screening process is part of a program for water quality protection and was designed in accordance with requirements in the Bay Area regional municipal stormwater NPDES permit (referred to as the Municipal Regional Permit). This process does not address other environmental programs or regulations (e.g., PCBs regulations under the Toxic Substances Control Act (TSCA), federal, state, or local regulations for hazardous material handling and hazardous waste disposal; health and safety practices to mitigate human exposure to PCBs or other hazardous materials; recycling mandates; or abatement at sites with PCBs or other contaminants). The applicant is responsible for knowing and complying with all relevant laws and regulations. See Notices to Applicants section in the Applicant Instructions and at the end of this form.

Complete all applicable parts of the PCBs Screening Assessment Form and submit with your demolition permit application.

All Applicants must complete Part 1 and Part 2.

Part 1. Owner/Consultant and project information			
Owner Information			
Name			
Address			
City	State	Zip	
Contact (Agent)			
Phone	Email		
Consultant Information			
Firm Name			
Address			
City	State	Zip	
Contact Person			
Phone	Email		
Project Location			
Address			
City	State	CA	Zip
APN (s)			
Year Building was Built	Type of Construction	Select	*
Estimated Demolition Date			

1

Part 2. Is building subject to the PCBs screening requirement based on type, use, and age of the building?

2.a Is the building to be demolished wood framed and/or single family residential? ☐ Yes ☐ No
If the answer to question 2.a is Yes, the PCBs Screening Assessment is complete, skip to Part 4. If the answer is No, continue to Question 2.b.

2.b Was the building to be demolished constructed or remodeled between January 1, 1950 and December 31, 1989? ☐ Yes ☐ No
If the answer to Question 2.b is No the PCBs Screening Assessment is complete, skip to Part 4. If the answer is Yes, continue to Question 2.c.

2.c Is the proposed demolition a complete demolition of the building? ☐ Yes ☐ No
If the answer to Question 2.c is No the PCBs Screening Assessment is complete, skip to Part 4. If the answer is Yes, complete Part 3.

All applications affecting applicable buildings and demolitions must complete Part 3 and the Part 3 Tables.

Part 3. Report concentrations of PCBs in priority building materials

Option 1. Applicants conducted representative sampling and analysis of the priority building materials per the Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition (2018) (Attachment C).

Option 2. Applicants possess existing sample results that are that are consistent with the Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition (2018) (Attachment C).

3.a Select option and report PCBs concentrations in the priority building materials and the source of data for each of the priority building materials. Provide the required supporting information.

<input type="radio"/> Option 1 Conduct Representative Sampling <ul style="list-style-type: none"> Summarize results on Part 3 Tables; and Provide the following supporting information: <ul style="list-style-type: none"> <input type="checkbox"/> Contractor's report documenting the assessment results; <input type="checkbox"/> QAVOC checklist (see Attachment C, section 3.2.4); and <input type="checkbox"/> Copies of the analytical data reports. 	<input type="radio"/> Option 2 Use Existing Sampling Records <ul style="list-style-type: none"> Summarize results on Part 3 Tables; and Provide the following supporting information: <ul style="list-style-type: none"> <input type="checkbox"/> Contractor's report/statement that the results are consistent with the Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition; <input type="checkbox"/> Copies of the analytical data reports.
---	--

All Applicants must complete Part 4.

Part 4. Certification

I certify that the information provided in this form is, to the best of my knowledge and belief, true, accurate, and complete. I further certify that I understand my responsibility for knowing and complying with all relevant laws and regulations related to reporting, abating, and handling and disposing of PCBs materials and wastes. I understand there are significant penalties for submitting false information. I will retain a copy of this form and the supporting documentation for at least 5 years.

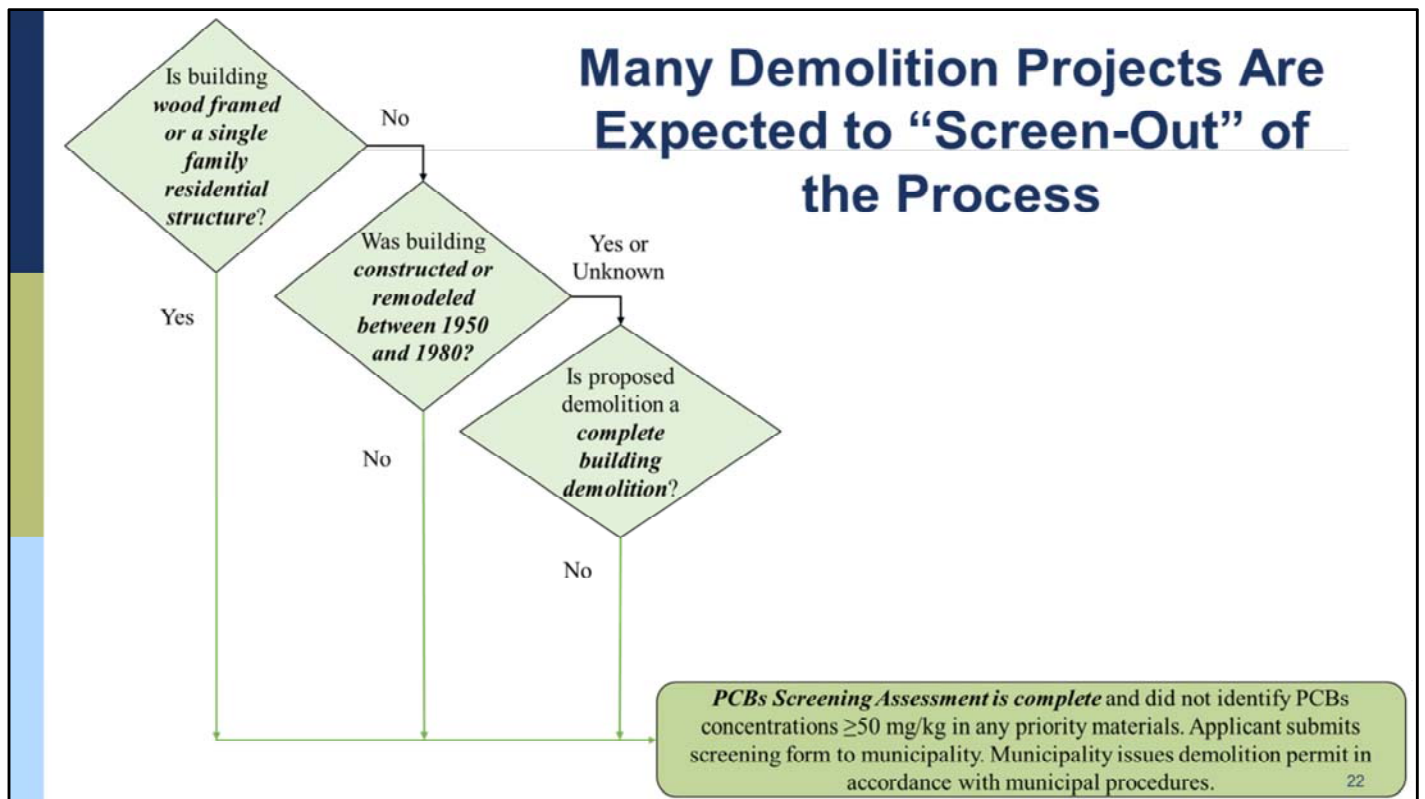
Signature: _____ Date: _____
(Property Owner/Agent/Legal Representative)

Print/Type: _____
(Property Owner/Agent/Legal Representative Name)

Signature: _____ Date: _____
(Consultant Completing Application Form)

Print/Type: _____
(Consultant Completing Application Form)

2



Note: This left-portion of the flowchart is just repeated in the event that, now that the text is a bit larger, it may be easier to walk through the different ways one might screen out. If it is not helpful, the speaker may choose to delete/hide it.

Every applicant seeking to demolish a building must complete Parts 1, 2, and 4.

PCBs Screening Assessment Form

For Municipality Use Only

Date Received: _____
File #: _____

This screening process is part of a program for water quality protection and was designed in accordance with requirements in the Bay Area regional municipal stormwater NPDES permit (referred to as the Municipal Regional Permit). This process does not address other environmental programs or regulations (e.g., PCBs regulations under the Toxic Substances Control Act (TSCA), federal, state, or local regulations for hazardous material handling, and hazardous waste disposal; health and safety practices to mitigate human exposures to PCBs; asbestos-containing materials; recycling mandates; or abatement of asbestos-containing materials). The applicant is responsible for knowing and complying with all applicable laws and regulations. See Notices to Applicants section in the Applicant Instructions at the end of this form.

Complete all applicable parts of the PCBs Screening Assessment Form and submit with your demolition permit application.

All applicants must complete Part 1 and Part 2.

Part 1. Owner/Consultant and project information

Owner Information

Name: _____
Address: _____
City: _____ State: _____ Zip: _____
Contact (Agent): _____
Phone: _____ Email: _____

Consultant Information

Firm Name: _____
Address: _____
City: _____ State: _____ Zip: _____
Contact Person: _____
Phone: _____ Email: _____

Project Location

Address: _____
City: _____ State: CA Zip: _____
APN (s): _____
Year Building was Built: _____ Type of Construction: _____
Estimated Demolition Date: _____

Part 2. Exemptions

Part 2. Is building subject to the PCBs screening requirement based on type, use, and age of the building?

2.a Is the building to be demolished wood framed and/or single family residential? ☐ Yes ☐ No
If the answer to question 2.a is Yes, the PCBs Screening Assessment is complete. Skip to Part 4. If the answer is No, continue to Question 2.b.

2.b Was the building constructed prior to 1950 and Dec 31, 1950? ☐ Yes ☐ No
If the answer to Question 2.b is No the PCBs Screening Assessment is complete. Skip to Part 4. If the answer is Yes, continue to Question 2.c.

2.c Is the proposed demolition a complete demolition of the building? ☐ Yes ☐ No
If the answer to Question 2.c is No the PCBs Screening Assessment is complete. Skip to Part 4. If the answer is Yes, complete Part 3.

All applications affecting applicable buildings and demolitions must complete Part 3 and the Part 3 Tables.

Part 3. Report concentrations of PCBs in priority building materials

Option 1. Applicants conducted representative sampling and analysis of the priority building materials per the Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition (2018) (Attachment C).

Option 2. Applicants possess existing sample results that are that are consistent with the Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition (2018) (Attachment C).

3.a Select option and report PCBs concentrations in the priority building materials and the source of data for each of the priority building materials. Provide the required supporting information.

☐ Option 1 Conduct Representative Sampling

- Summarize results on Part 3 Tables; and
- Provide the following supporting information:
 - ☐ Contractor's report documenting the assessment results;
 - ☐ QAVC checklist (see Attachment C, section 3.2.4); and
 - ☐ Copies of the analytical data reports.

☐ Option 2 Use Existing Sampling Records

- Summarize results on Part 3 Tables; and
- Provide the following supporting information:
 - ☐ Contractor's report/statement that the results are consistent with the Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition;
 - ☐ Copies of the analytical data reports.

All Applicants must complete Part 4.

Part 4. Certification

I certify that the information provided is accurate, and complete. I further certify that I understand and am complying with all applicable laws and regulations related to reporting, abating, and handling and disposing of PCBs materials and wastes. I understand there are significant penalties for submitting false information. I will retain a copy of this form and the supporting documentation for at least 5 years.

Signature: _____ Date: _____
(Property Owner/Agent/Legal Representative)

Print/Type: _____
(Property Owner/Agent/Legal Representative Name)

Signature: _____ Date: _____
(Consultant Completing Application Form)

Print/Type: _____
(Consultant Completing Application Form)

So even if you “screen out” due to the type of building structure, the age of the building/ last remodel, and/or the level of demolition activity, you still must complete sections 1, 2, and 4 of this application to clarify the project information, the exemption status, and certify the accuracy of the information. I will next show you those three sections very briefly so you are able to skim the content of each section.

Part 1. Owner and Project Information

Part 1. Owner/Consultant and project information				
Owner Information				
Name				
Address				
City	State	Zip		
Contact (Agent)				
Phone	Email			
Consultant Information				
Firm Name				
Address				
City	State	Zip		
Contact Person				
Phone	Email			
Project Location				
Address				
City	State CA	Zip		
APN (s)				
Year Building was Built	Type of Construction	Select		
Estimated Demolition Date				

Part 2. Is It a “Non-Applicable Structure” Based on Type, Use, and Age of Structure?

Part 2. Is building subject to the PCBs screening requirement based on type, use, and age of the building?

2.a Is the building to be demolished wood framed and/or single family residential? ☐ Yes ☐ No

If the answer to question 2.a is **Yes**, the PCBs Screening Assessment is complete, skip to Part 4. If the answer is **No**, continue to Question 2.b.

2.b Was the building to be demolished constructed or remodeled between January 1, 1950 and December 31, 1980? ☐ Yes ☐ No

➤ If the answer to Question 2.b is **No** the PCBs Screening Assessment is complete, skip to Part 4. If the answer is **Yes**, continue to Question 2.c.

2.c Is the proposed demolition a complete demolition of the building? ☐ Yes ☐ No

➤ If the answer to Question 2.c is **No** the PCBs Screening Assessment is complete, skip to Part 4. If the answer is **Yes**, complete Part 3.

Part 4. Certification

- All applicants (even with non-applicable structures) certify submitted information
- The property owner signs the certification

Part 4. Certification	
I certify that the information provided in this form is, to the best of my knowledge and belief, true, accurate, and complete. I further certify that I understand my responsibility for knowing and complying with all relevant laws and regulations related to reporting, abating, and handling and disposing of PCBs materials and wastes. I understand there are significant penalties for submitting false information. I will retain a copy of this form and the supporting documentation for at least 5 years.	
Signature: _____ (Property Owner/Agent/Legal Representative)	Date: _____
Print/Type: _____ (Property Owner/Agent/Legal Representative Name)	
Signature: _____ (Consultant Completing Application Form)	Date: _____
Print/Type: _____ (Consultant Completing Application Form)	

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There may be an owner or there may be a trust with a legal representative.
There may be a consultant to the owner – if so, both sign.
See package instructions for more information.

An applicant with an applicable, "screened-in" building also completes Part 3 (including support tables)

PCBs Screening Assessment Form

This screening process is part of a program for water quality protection and was designed in accordance with requirements in the Bay Area regional municipal stormwater NPDES permit (referred to as the Municipal Regional Permit). This process does not address other environmental programs or regulations (e.g., PCBs regulations under the Toxic Substances Control Act (TSCA), federal, state, or local regulations for hazardous material handling and hazardous waste disposal; health and safety practices to mitigate human exposure to PCBs or other hazardous materials; recycling mandates; or abatement at sites with PCBs or other contaminants). The applicant is responsible for knowing and complying with all relevant laws and regulations. See Notices to Applicants section in the Applicant Instructions and at the end of this form.

Complete all applicable parts of the PCBs Screening Assessment Form and submit with your demolition permit application.

All Applicants must complete Part 1 and Part 2.

Part 1. Owner/Consultant and project information			
Owner Information			
Name _____			
Address _____			
City _____	State _____	Zip _____	
Contact (Agent) _____			
Phone _____	Email _____		
Consultant Information			
Firm Name _____			
Address _____			
City _____	State _____	Zip _____	
Contact Person _____			
Phone _____	Email _____		
Project Location			
Address _____			
City _____	State _____	Zip _____	
APN (s) _____	Type of Construction Select _____		
Estimated Demolition Date _____			

1

For Municipality Use Only	
Date Received _____	File # _____

Part 2. Is building subject to the PCBs screening requirement based on type, use, and age of the building?

2.a Is the building to be demolished wood framed and/or single family residential? ☐ Yes ☐ No
If the answer to question 2.a is Yes, the PCBs Screening Assessment is complete, skip to Part 4. If the answer is No, continue to Question 2.b.

2.b Was the building to be demolished constructed or remodeled between January 1, 1950 and December 31, 1989? ☐ Yes ☐ No
If the answer to Question 2.b is No the PCBs Screening Assessment is complete, skip to Part 4. If the answer is Yes, continue to Question 2.c.

2.c Is the proposed demolition a complete demolition of the building? ☐ Yes ☐ No
If the answer to Question 2.c is No the PCBs Screening Assessment is complete, skip to Part 4. If the answer is Yes, complete Part 3.

Part 3. Report concentrations of PCBs in priority building materials

Option 1. Applicants conducted representative sampling and analysis of the priority building materials per the Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition (2018) (Attachment C).

Option 2. Applicants possess existing sample results that are consistent with the Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition (2018) (Attachment C).

3.a Select option and report PCBs concentrations in the priority building materials and the source of data for each of the priority building materials. Provide the required supporting information.

<input type="radio"/> Option 1 Conduct Representative Sampling <ul style="list-style-type: none"> Summarize results on Part 3 Tables; and Provide the following supporting information: <ul style="list-style-type: none"> <input type="checkbox"/> Contractor's report documenting the assessment results; <input type="checkbox"/> QAVOC checklist (see Attachment C, section 3.2.4); and <input type="checkbox"/> Copies of the analytical data reports. 	<input type="radio"/> Option 2 Use Existing Sampling Records <ul style="list-style-type: none"> Summarize results on Part 3 Tables; and Provide the following supporting information: <ul style="list-style-type: none"> <input type="checkbox"/> Contractor's report/statement that the results are consistent with the Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition; <input type="checkbox"/> Copies of the analytical data reports.
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All Applicants must complete Part 4.

Part 4. Certification

I certify that the information provided in this form is, to the best of my knowledge and belief, true, accurate, and complete. I further certify that I understand my responsibility for knowing and complying with all relevant laws and regulations related to reporting, abating, and handling and disposing of PCBs materials and wastes. I understand there are significant penalties for submitting false information. I will retain a copy of this form and the supporting documentation for at least 5 years.

Signature: _____ Date: _____
(Property Owner/Agent/Legal Representative)

Print/Type: _____
(Property Owner/Agent/Legal Representative Name)

Signature: _____ Date: _____
(Consultant Completing Application Form)

Print/Type: _____
(Consultant Completing Application Form)

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Part 3. Report Concentrations of PCBs in Priority Building Materials

All applications affecting applicable structures and demolitions must complete Part 3 and the Part 3 Tables.

Part 3. Report concentrations of PCBs in priority building materials

Option 1. Applicants conducted representative sampling and analysis of the priority building materials per the Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition (2018) (Attachment C).

Option 2. Applicants possess existing sample results that are that are consistent with the Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition (2018) (Attachment C).

3.a Select option and report PCBs concentrations in the priority building materials and the source of data for each of the priority building materials. Provide the required supporting information

☐ Option 1 Conduct Representative Sampling

- Summarize results on Part 3 Tables; and
- Provide the following supporting information:
 - ☐ Contractor's report documenting the assessment results;
 - ☐ QA/QC checklist (see Attachment C, section 3.2.4); and
 - ☐ Copies of the analytical data reports.

☐ Option 2 Use Existing Sampling Records

- Summarize results on Part 3 Tables; and
- Provide the following supporting information:
 - ☐ Contractor's report/statement that the results are consistent with the Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition.
 - ☐ Copies of the analytical data reports.

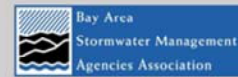
Protocol for the PCB Evaluation Before Demolition

- **Section 3.1:** identifies priority materials to be tested
- **Section 3.2:** describes PCBs sampling procedures
 - Equipment
 - Frequency
 - Analysis and preservation
 - Quality Assurance and Quality Control Check List
- **Appendix B:** provides photo examples of the priority materials

Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition



Managing PCBs-Containing Building Materials during Demolition:
Guidance, Tools, Outreach and Training



August 2018

BASMAA has developed a protocol for identifying the priority materials, as well as sampling and analysis procedures.

Five Priority Building Materials

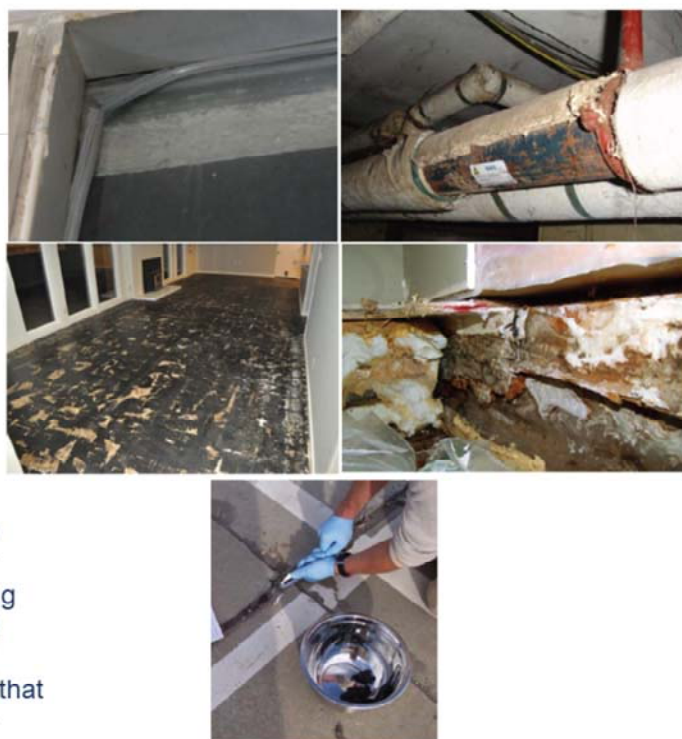
Caulk/Sealants/Adhesives:

- Caulk
- Rubber Window Gaskets
- Mastic

Insulation:

- Thermal
- Fiberglass

Note that fluorescent light ballasts, polyurethane foam furniture, and Askarel fluid used in transformers, all of which may contain PCBs, are typically managed during pre-demolition activities under current regulations and programs that require removal of universal waste and outdated transformers. For this process it is assumed that those materials will be evaluated and managed under those existing programs.



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The materials were prioritized by developing six factors that relate to the load or mass of PCBs associated with the materials, the likelihood of the material to get into stormwater during the demolition process, and the relative difficulty to remove the material from the building. A spreadsheet was used to assign a score to each material based on the factors, which were evenly weighted. The materials were then ranked and the highest scoring materials selected.

Therefore, this program is only asking for information about the following types of building materials:

1. Caulks and Sealants:

- a. Around windows or window frames;
- b. Around door frames; and
- c. Expansion joints between concrete sections (e.g., floor segments).

2. Thermal/Fiberglass Insulation and Other Insulating Materials:

- a. Around HVAC systems,
- b. Around heaters,
- c. Around boilers,
- d. Around heated transfer piping, and
- e. Inside walls or crawls spaces.

3. Adhesive/Mastic:

- a. Below carpet and floor tiles;
- b. On, under, or between roofing materials and flashing.

4. Rubber Window Seals/Gaskets:

- a. Around windows or window frames.

Excerpts From the Part 3 Data Reporting Tables

Part 3 Caulk Applications Table			
Column 1. Report all PCBs concentrations for each homogenous area of caulking area (see Attachment C, Section 3.2.2). Use sample designators/descriptions from laboratory report.		Column 2. Complete for each concentration ≥ 50 ppm	
Caulk Application Sample Description	Concentration (mg/kg)	Estimate Amount of Material	Units
Example: <u>Caulk Sample 1</u>	<u>320</u>	<u>48</u>	Linear Feet
1. _____	_____	_____	Linear Feet
2. _____	_____	_____	Linear Feet

Part 3 Thermal Insulation Applications Table			
Column 1. Report all PCBs concentrations for each homogenous area of thermal insulation (see Attachment C, Section 3.2.2). Use sample designators/descriptions from laboratory report.		Column 2. Complete for each concentration ≥ 50 mg/kg	
Thermal Insulation Application Sample Description	Concentration (mg/kg)	Estimate Amount of Material	Units
Example: <u>Thermal Insulation Sample 1</u>	<u>20</u>	_____	Square Feet
1. _____	_____	_____	Square Feet
2. _____	_____	_____	Square Feet

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Therefore, in the Part 3 data reporting tables, one will find a separate table for each of these 5 materials.

Minimum Sample Collection Frequency

- Collect samples based on homogenous material areas
- Inspect the entire building prior to sample collection to ensure proper distribution is performed
- If homogenous material is found throughout the building, samples should be spatially distributed so as to not collect the required number of samples from one area

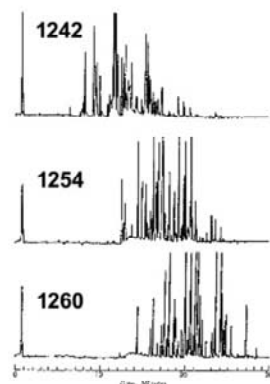
Minimum # of Samples	Caulk/Rubber Window Gaskets (ft)	Adhesive/Mastic (sq ft)	Thermal/Fiberglass Insulation
1	<50	-	Bulk sample from each homogenous area
3	50-250	<1,000	
5	250-1,000	1,000-5,000	
7	1,000-2,500	>5,000	
9	>2,500	-	

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AEC working on list of contractors that are qualified.

Building Material Sample Analysis

- Analyze for Aroclors by EPA Method 8082/8082A
- Must use an accredited analytical laboratory
- Contact the laboratory to confirm minimum sample volume required to meet the reporting limit objectives
- Specify a minimum reporting limit 50 µg/kg



Notices to applicants: This is not the only program regulating PCBs

Notices to Applicants Regarding Federal and State PCBs Regulations

Applicants that determine PCBs exist building materials must follow applicable federal and state laws. This may include reporting to U.S. Environmental Protection Agency (USEPA), the San Francisco Bay Regional Water Quality Control Board, and the California Department of Toxic Substances Control (DTSC). These agencies may require additional sampling and abatement of PCBs. Depending on the approach for sampling and removing building materials containing PCBs, you may need to notify or seek advance approval from USEPA before building demolition. Even in circumstances where advance notification to or approval from USEPA is not required before the demolition activity, the disposal of PCBs waste is regulated under TSCA and the California Code of Regulations. (See Note 1)

Note 1 - Federal and State Regulations

Building materials containing PCBs at or above 50 ppm that were manufactured with PCBs (e.g., caulk, joint sealants, paint) fall under the category of PCBs bulk product wastes. See 40 Code of Federal Regulations (CFR) 761.3 for a definition of PCBs bulk product wastes.

Building materials such as concrete, brick, metal contaminated with PCBs are PCBs remediation wastes (e.g., concrete contaminated with PCBs from caulk that contains PCBs). 40 CFR 761.3 defines PCBs remediation wastes.

Disposal of PCBs wastes are subject to TSCA requirements such as manifesting of the waste for transportation and disposal. See 40 CFR 761 and 40 CFR 761, Subpart K.

TSCA-regulated does not equate solely to materials containing PCBs at or above 50 ppm. There are circumstances in which materials containing PCBs below 50 ppm are subject to regulation under TSCA. See 40 CFR 761.61(a)(5)(i)(B)(2)(ii).

Disposal of PCBs wastes are subject to California Code of Regulations (CCR) Title 22, Section Division 4.5, Chapter 12, Standards Applicable to Hazardous Waste Generators.

California hazardous waste regulatory levels for PCBs are 5 ppm based on the Soluble Threshold Limit Concentration test and 50 ppm based on the Total Threshold Limit Concentration test, see CCR, Title 22, Section 66261.24, Table III.

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Because this program is only focused on 5 high priority materials, it is expected that PCBs exist in other building materials beyond the scope of this project. All applicants must follow all applicable federal and state laws, some of whom may require additional sampling.

Additional sampling for and abatement of PCBs may be required. Depending on the approach for sampling and removing building materials containing PCBs, the Applicant may need to notify or seek advance approval from USEPA before building demolition. Even in circumstances where advance notification to or approval from USEPA is not required before the demolition activity, the disposal of PCBs waste is regulated under Toxic Substances Control Act (TSCA). Additionally, the disposal of PCBs waste is subject to California Code of Regulations (CCR) Title 22 Section 66262. Additional information is provided in the Applicant Package.

Muni staff hands over to EPA at this point. Don't answer questions that EPA should.

EPA edited the language in the paragraph at the top of the slide. We understand that better definition of EPA's role and when they need to be involved would be helpful. We provided contacts at EPA for questions. Also, hopefully consultants/contractors will be helpful.

Note to Developers, Building Owners, and Other Parties to Building Demolition

In light of this new program, it may be advisable to assess for PCBs in building materials as early as possible (e.g., during cost-benefit analysis, Phase I/II Environmental Site Assessment, and/or CEQA). Unanticipated project costs and delays could potentially be avoided by early evaluation for PCBs (along with other pollutants such as asbestos and lead) in buildings that may be slated for demolition.

Summary: Managing PCBs-Containing Building Materials During Demolition

- New regulatory program mandated by the Municipal Regional Stormwater Permit (MRP) to protect water quality in San Francisco Bay
 - Implemented by municipalities through building demolition permit processes
 - Requires applicants to sample priority building materials for PCBs in applicable structures
 - Building owners are responsible for following all state and federal requirements regarding handling, abatement, and disposal of PCBs-containing materials and wastes
- BASMAA developed tools and guidance to assist municipalities and industry and create a regionally consistent approach
- Program must be implemented **no later than July 1, 2019**

Start planning now for upcoming demolition projects

Questions

