The Municipal Regional Permit (MRP) requires that all 76 cities, counties, and other permitted entities be ready to fully implement this program by July 1st 2019. To support that effort, BASMAAA has completed model materials and guidance materials. Today we will discuss the MRP requirements, implementation steps, and the BASMAAA support material.
Here are the goals for today’s meeting. A further goal for the October 9 workshop is to review this material to determine if this appears to be the right level of information for training of muni staff on the adoption and implementation of this new requirement.

**BASMAA is not fully developing the program, just providing guidance and tools. Every muni must adopt and implement themselves.**
Manufacturing of PCBs was discontinued in 1979.
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.
• 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.
• That TMDL led to new requirements in stormwater permits
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 = 10,500 kg
- Average PCBs/building ≈ 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.
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.*

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
The key deadline of July 1st 2019 refers to the deadline for program to begin implementation. That means that prior to July 1st, each municipality must have:

- established legal authority through their city council or board of supervisors;
- trained appropriate building and planning staff;
- published application forms and instructions;
- and begun notifying applicants of the new requirement.
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.
NOTE: That last step - the process to submit completed data forms to BASMAA and/or the countywide stormwater program – still needs to be worked out.

Each Program Will Require the Following Components

<table>
<thead>
<tr>
<th>Necessary Components of a Successful Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>A mechanism to establish municipal authority (e.g., ordinance, resolution or policy)</td>
</tr>
<tr>
<td>CEQA Notice of Exemption</td>
</tr>
<tr>
<td>Application package for demolition permit applicants (e.g., with forms, instructions and process flow chart)</td>
</tr>
<tr>
<td>A building survey protocol for applicants</td>
</tr>
<tr>
<td>A cost recovery mechanism to comply with MRP Provision C.12.f. (if desired)</td>
</tr>
<tr>
<td>A process to train relevant staff to implement the new program</td>
</tr>
<tr>
<td>A process to submit completed data forms to BASMAA and/or the countywide stormwater program</td>
</tr>
</tbody>
</table>

BASMAA has prepared model documents to support all program components. We will walk through many of those today.
Since these are regional requirements yet to be promulgated by 76 distinct jurisdictions, BASMAA sought to create a set of model documents that would promote regional consistency. Their methodology and work products were vetted by regulators, industry stakeholders, and municipal representatives.
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 under taken 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
To identify these materials, an initial literature review was conducted to identify the full list of known PCBs-containing building materials and reported PCBs concentrations.

Consultants conducted a literature review of PCBs-containing materials

- 100+ references reviewed
- 87 building materials identified
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.

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.
Municipal Role in This Process

1. Establish legal authority
2. Notify applicants about new PCBs requirements
3. Review applicant submittals
   - Confirm permit application and information is complete before authorizing demolition
   - Work with applicants to make corrections and get any missing information
4. Submit copies of forms directly to the countywide programs or BASMAA for compiling, processing and reporting on the PCBs data per MRP requirements

Your role in the process is presented here as follows.
Establishing Legal Authority

- Review your existing municipal codes (stormwater ordinance) and other pertinent conditions of approval, regulations and policies with your City Attorney or County Counsel.

- Some municipalities may determine that they already have sufficient authority in their existing municipal code to authorize development of a new program to manage PCBs-containing building materials during demolition per MRP Provision C.12.f.

- Pertinent section from the 1991 Model Stormwater Ordinance:

  Discharge of Pollutants
  The discharge of non-stormwater discharges to the [(City/County of ____)] storm sewer system is prohibited....
Options for Establishing Legal Authority

- **Ordinance Option**
  - This option entails adoption of an ordinance to manage PCBs-containing building materials during demolition by the Permittee’s governing body (such as a City Council or County Board of Supervisors).

- **Resolution Option**
  - This option leverages existing municipal codes to adopt a program to manage PCBs-containing building materials during demolition through a resolution of the Permittee’s governing body, which would approve the program and grant authority to develop the regulations for the program.

- **Management Action Option**
  - Could be paired with an information item on an agenda at regular meeting of Permittee’s governing body.

The ordinance would add requirements to an existing section of the Permittee’s municipal code (or creates a new section in the code) related to:
- Building demolition permitting.
- Construction and demolition waste recycling.
- Stormwater management.

BASMAA has developed a model ordinance.

The resolution would grant authority to develop regulations via the existing municipal code and:
- An additional standard condition of approval for new development projects similar to an existing one requiring testing and abatement of lead and asbestos.
- Demolition permit language modifications.
- Changes to regulations for the recycling of construction and demolition waste management.

Changes to the stormwater management regulations and clarification that PCBs are one of the pollutants of concern covered under the Permittee’s existing non-stormwater discharge section of the stormwater section of the municipal code.

BASMAA also developed a model resolution.

Management Action Option entails adoption of a program to manage PCBs-containing building materials during demolition through actions of the Permittee’s managerial staff such as:
- An additional standard condition of approval per the resolution language above.
- Changes to the procedures of systems for processing waste management forms for construction and demolition debris on paper or web-based software (such as the proprietary web applications developed by Green Halo Systems that are used by some Permittees).
- Modifications to the processes for handling demolition permits.
- Directing staff to collect data related to managing PCBs during demolition activities and working with BASMAA to report the data to the Regional Water Board as required by the MRP.
Given the July 1st deadline, we recommend that you begin discussions within your agency as soon as possible.
TRAINING item at the end: There is also a training PPT available for reaching out to industrial stakeholders.

Regarding CEQA:

under the provisions of CEQA Section 15308, the program to manage PCBs in building materials during demolition is found to be exempt from the environmental review requirements. Section 15308 of the State Guidelines for Implementation of the California Environmental Quality Act (CEQA) applies to actions taken by regulatory agencies, as authorized by state or local ordinance, to assure the maintenance, restoration, enhancement, or protection of the environment where the regulatory process involves procedures for protection of the environment. No unacceptable negative impacts have been identified.
Here is a general overview of how this process will unfold.

Make sure applicable structure defined.

SPEAKER: notice that there are buildings which may require being tested (because they don’t screen out) but that upon testing, if all samples are less than 50 ppm, they again screen-out.
Next we will review the applicant role in the process. By applicant we mean the owner and their consultant for the property undergoing demolition.

**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 second document as “The Protocol”.
The model applicant package from BASMAA contains all the instructions and forms, as well as an instructive flow chart to help navigate the process.
This is the application form. We will look at each of the 4 sections separately in just a minute. All applicants must complete sections 1, 2, and 4. Even if an applicant “screens out” due to the type of building structure, the age of the building/ last remodel, and/or the level of demolition activity, they 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.
It is anticipated that each jurisdiction’s approach to implementing the new program will vary depending upon that agency’s current procedures and needs. Potential approaches include using the model materials as a stand-alone program, or incorporating questions in the model materials into existing demolition permit or building permit applications, Construction and Demolition (C&D) applications and plan development guidance, and/or information management systems such as GreenHalo™. However, the draft Applicant Package was developed as a stand-alone package in order to provide a complete overview of a model process.
Review Key Sections of the Forms
So even if a site “screens out” due to the type of building structure, the age of the building/last remodel, and/or the level of demolition activity, the owner/consultant must still 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

<table>
<thead>
<tr>
<th>Owner Information</th>
<th>Consultant Information</th>
<th>Project Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Firm Name</td>
<td>Address</td>
</tr>
<tr>
<td>Address</td>
<td>Address</td>
<td>City</td>
</tr>
<tr>
<td>City</td>
<td>State</td>
<td>Zip</td>
</tr>
<tr>
<td>Contact Person</td>
<td>Contact Person</td>
<td>Phone</td>
</tr>
<tr>
<td>Phone</td>
<td>Phone</td>
<td>Email</td>
</tr>
<tr>
<td>Email</td>
<td>Email</td>
<td>Address</td>
</tr>
<tr>
<td>City</td>
<td>State</td>
<td>Zip</td>
</tr>
<tr>
<td>Project Location</td>
<td>APN (s)</td>
<td>Year Built</td>
</tr>
<tr>
<td>City</td>
<td>State</td>
<td>Zip</td>
</tr>
<tr>
<td>APN (s)</td>
<td>Year Built</td>
<td>Type of Construction</td>
</tr>
<tr>
<td>Year Built</td>
<td>Type of Construction</td>
<td>Select</td>
</tr>
<tr>
<td>Estimated Demolition Date</td>
<td>Type of Construction</td>
<td>Select</td>
</tr>
</tbody>
</table>
## Part 2. Is It a “Non-Applicable Structure” Based on Type, Use, and Age of Structure?

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.a Is the building to be demolished wood framed and/or single family</td>
<td></td>
<td></td>
</tr>
<tr>
<td>residential?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>If the answer to question 2.a is Yes, the PCBs Screening Assessment is</td>
<td></td>
<td></td>
</tr>
<tr>
<td>complete, skip to Part 4. If the answer is No, continue to Question 2.b.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.b Was the building to be demolished constructed or remodeled between</td>
<td></td>
<td></td>
</tr>
<tr>
<td>January 1, 1950 and December 31, 1980?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>► If the answer to Question 2.b is No the PCBs Screening Assessment is</td>
<td></td>
<td></td>
</tr>
<tr>
<td>complete, skip to Part 4. If the answer is Yes, continue to Question 2.c.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.c Is the proposed demolition a complete demolition of the building?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>► If the answer to Question 2.c is No the PCBs Screening Assessment is</td>
<td></td>
<td></td>
</tr>
<tr>
<td>complete, skip to Part 4. If the answer is Yes, complete Part 3.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
An applicant with an applicable, “screened-in” building also completes Part 3 (including support tables).
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

<table>
<thead>
<tr>
<th>Option 1</th>
<th>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).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Option 2</td>
<td>Applicants possess existing sample results that are consistent with the Protocol for Evaluating Priority PCBs-Containing Materials before Building Demolition (2018) (Attachment C).</td>
</tr>
</tbody>
</table>

#### 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.
BASMAA has developed a protocol for identifying the priority materials, as well as sampling and analysis procedures.
In the Part 3 data reporting tables, one will find a separate table for each of the 5 priority materials:

- Caulk
- Rubber window gaskets
- Mastic
- Thermal insulation
- Fiberglass insulation
Part 4. Certification

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

Speaker: 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.
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.
Recommend Building Owners That Identify PCBs in Their Buildings Review EPA Information

[Image of EPA webpage]

Next Steps

- Begin processes to adopt and implement program
  - Determine if you need a new ordinance, or need to revise an existing ordinance, or already have sufficient legal authority
    - Engage Building Official, Legal Counsel
    - Create time line/schedule
  - Brief municipal leaders
    - Advise City/Town Manager, Building Official, Public Works Director
  - Begin revising your applicable permit processes (demolition, building)
    - Work with staff to determine whether you need a new process or can integrate questions into an existing process
  - Begin the ordinance modification or adoption process (if applicable)
    - Work with staff to draft ordinance (revisions)

As soon as possible!!!!! Will take time, see next slide
This is to give you a feel for the steps likely needed to get this program up and running for your municipalities. Each municipality will have its own specific requirements.
Acknowledgments

BASMAA Steering Committee
- Reid Bogert, San Mateo Countywide Water Pollution Prevention Program
- Amanda Booth, City of San Pablo
- Kevin Cullen, Fairfield-Suisun Urban Runoff Management Program
- Matt Fabry, San Mateo Countywide Water Pollution Prevention Program
- Gary Faria, Contra Costa County
- Napp Fukuda, City of San José
- Ryan Pursley, City of Concord
- Pam Hoyle Rodriguez, City of Palo Alto
- Jim Scanlin, Alameda Countywide Clean Water Program
- Melody Tovar, City of Sunnyvale

Technical Advisory Committee
- Luisa Valiela and Carmen Santos, EPA, Region 9
- Jan O’Hara, Regional Water Board
- Ron Carey and Richard Lew, Bay Area Air Quality Management District
- Patrick Hayes, City of Oakland
- Kim Springer, San Mateo County Office of Sustainability
- Amanda Booth, City of San Pablo
- Avery Brown, Ferma Corporation
- John Martinelli, Forensic Analytical Consulting
- John Trenev, Bayview Environmental Services
Questions/Discussion