

Washington Department of Ecology
Legacy Pesticides Small Group Virtual Meeting Summary
Construction & Development

Friday June 25, 2020 | 1:00 p.m. – 3:00 p.m.

Welcome

Facilitator Joy Juelson, Triangle Associates, welcomed the group (see list of attendees) and requested brief introductions. The facilitator reviewed the previous meeting's highlights and working group timeline. Jill Scheffer, Ecology, reminded the group of Ecology's blog posts and latest media updates. The facilitator then reviewed the agenda and meeting objectives.

Joy Juelson updated the group regarding the other small group's progress. Similar to this group, all the small groups had their first small group meeting in May to brainstorm potential solutions and concerns with MFA. All the small groups will have a meeting in June and receive the same MFA background report presentation.

Presentation: Research Update & Initial Solutions Discussion

Lisa Parks, MFA, presented a background report update based on the first three Legacy Pesticides Working Group (LPWG) and small group meetings. The presentation covered the following topics and can be found on page 5:

- Purpose of the background report
- Overview of the background report
 - o Reflection of community concerns
 - o Risks
 - o Regulations
 - o Local and national case studies
 - o Recap of solutions suggested from LPWG
- MFA's next step
- Discussion and feedback (covered in the next section of the summary)

Group Discussion and Q & A

Following the background report update presentation, Joy Juelson requested the small group engage in a round table discussion to provide comments, questions, and feedback regarding the presentation and identifying additional potential solution ideas. The following feedback was captured:

1. *Group member:* commented on the lack of examples across the nation regarding lead and arsenic from orchard lands. They noted the appearance of examples from smelters versus orchard/farmland seem different in terms of how to remediate and addressing the underlying problem of lead and arsenic. They requested MFA identify smaller and more local scale projects that were not funded by the federal government. Additionally, they provided the following feedback and concerns regarding the following:

- a. Commented that the working group is focused on the methodology, but uncertain of the solution. *Response: MFA responded that they are working towards provide multiple solutions based on the different scenarios and limitations.*
 - b. Reflected to the first Legacy Pesticides Working Group meeting in February and noted the priority dot activity. During the activity, some of the top responses were to question the premise of this effort and to gather additional data on health impacts. However, since the first meeting, the working group has not discussed that topic. They noted frustration in a lack of discussion regarding working off sufficient data versus predicted modeling. *Response: MFA responded that MFA is not currently researching into the rule making process of the Model Toxics Control Act (MTCA), but rather looking for solutions that follow the MTCA regulation/law. Ecology responded there currently is science behind lead and arsenic contamination and they support more studies about health impacts.*
 - c. Requested Ecology to communicate the thresholds and expectations. This includes limiting exceptions (i.e. for short plats vs. building permits)
2. *Group member:* appreciated the work done by MFA and provided the following comments and questions:
 - a. Asked if MFA is researching different solutions based on different land uses (i.e. daycares versus residential homes). *Response: MFA responded they are looking to identify multiple solutions that could benefit multiple land uses and the community.*
 - b. Noted that consideration of land use is common to decide solutions and requested information regarding what are dangerous levels of lead and arsenic to humans. *Response: MFA responded that they would address this in their initial background report.*
 - c. Requested additional information regarding how lead and arsenic levels impact youth versus adults. *Response: MFA responded that they would address this in their initial background report.*
3. *Group member:*
 - a. Recalled that some counties have done some blood level testing, but the results appear to have not shown high levels of lead and arsenic impacts.¹ Based on those findings, they were wondering if the amount of blood level impacts guides the solutions to be considered. *Response: MFA responded they are working to identify solutions that comply with the MTCA regulation and that MTCA regulates based on the traits of the soil, not blood level impacts. MFA also noted some issues with blood level testing.*
 - b. Commented concern in basing solutions on modeling data and information.
4. *Group member:*
 - a. Asked questions regarding the case studies presented about the historic results, costs, and what worked well. *Response: MFA responded that they would review the case studies to provide answers and noted many of the programs in the case studies are ongoing and were implemented 10-15 years ago. Typically, programs measure success by soil concentration.*
 - b. Requested solutions to be considered for long term success and would like to learn more about previous case studies. *Response: MFA commented they are researching a variety of solutions and will look to ensure a cost benefit analysis is considered.*
5. *Group member:* was in consensus with other group members ideas and feedback and provided the following questions and feedback:

¹ Ecology, MFA, and Triangle will follow up with the Group Member to gather these findings and testing.

- a. They noted additional interest in the potential solution of soil banking and requested additional information on this idea when it becomes available. Including estimates on volumes of soil that might be handled.
 - b. Requested additional information from the case studies as to information/estimates on the cost to implement the remedial solutions (preferably by acre or by residential lot for a typical development).
 - c. Commented the need to capture remediation costs and how it would relate to development costs.
 - d. Requested additional information regarding if researched potential solutions including mitigation or remediation strategies for other metals or legacy pesticides. Asked if remediation strategies that use lead and arsenic evaluation alone was sufficient to address organochlorine and organophosphorus legacy pesticides. *Response: MFA and Ecology acknowledged the comment and responded that lead and arsenic are typically different than other legacy pesticides due to their attachment to soils.*
 - e. A request to identify if lead and arsenic impacts ground water.
 - f. Commented the current struggle with effective worker training and safety. They requested to identify if any of the case studies provided information, resources, and best practices that could be used to develop effective worker trainings, potentially less than a traditional 24-hour HAZWOPER course.
 - g. Requested information from case studies about worker exposure and best practices for landscapers.
 - h. Noted concern regarding utilization of the mapping tools due the relocation/shifting of soil during site development and importation of soils during a project. They commented mapping can be informative, but not sufficient alone to understand if a site has been impacted by legacy pesticides.
 - i. Questioned how the site sampling would occur. Would the sampling be one sample for each site, or a set of samples? When should statistical analysis be considered for mapping a site? Is it expected that soil conditions are evaluated based on each sample or though average contaminant concentration? Furthermore, requested the cost of sampling to be a variable that MFA considers when researching solutions as the testing for all legacy pesticides, including arsenic, lead, organochlorine, organophosphorus, etc. can significantly burden a project.
 - j. Requested information from case students about if land use (i.e. residential vs commercial) utilized different cleanup strategies or contamination levels.
6. *Group Member:* requested an update on the mapping project with Ecology. *Response: Ecology responded that they are continuing to work on the maps and are working with the public outreach and education group to determine messaging and timing of public release.* Additionally, the group member provided the following feedback and ideas:
- a. Asked if there is a remediation solution to clean the soils. *Response: MFA responded that cleaning soil is an option but can be expensive. They will continue to research the idea.*
 - b. Was supportive of the previous group member's request regarding effective worker training.
 - c. Requested an increase of public education regarding legacy pesticides.
 - d. Commented that if people are getting sick from lead and arsenic in the soil, then we should understand the extent of the problem and the solutions should shift further into public health and safety.

Lisa Parks and Joy Juelson thanked the small group for their feedback. Lisa Parks noted MFA intends to release discreet reports to Ecology for their review in July. After Ecology's review, the small groups will also have a review period. MFA will then begin their next phase where they will conduct a deep dive of the solutions of interest and based on their initial research.

Following the round table, Joy Juelson reviewed the next steps and reminded the small group members the next meeting will likely occur in August but may have small group consultation meetings between now and the next working group meeting. The meeting was adjourned at 3:00.

Small Group Attendance (in alphabetical order by last name)

- Doug England, Commissioner of Chelan County
- Hank Lewis, Consultant & Former Chelan County
- Ryan Mathews, Consultant for Fulcrum
- Jake Mayson, Government Affairs Director for Central WA Home Builders Association
- Don Mounter, Project Manager for Pipkin Construction
- Judy Warnick, Senator of the 13th Legislative District

Ecology Staff/Consultants/Facilitation Team:

- Joy Juelson, Triangle Associates
- Katrina Radach, Triangle Associates
- Jill Scheffer, Ecology
- Kate Elliot, MFA
- Jim Maul, MFA
- Lisa Parks, MFA
- Phil Wiescher, MFA



MAUL FOSTER ALONG!



Legacy Pesticide Working Group: Background Report Update

June 22-26, 2020

Today's Discussion

Purpose of the
Background Report

Overview of the
Background Report

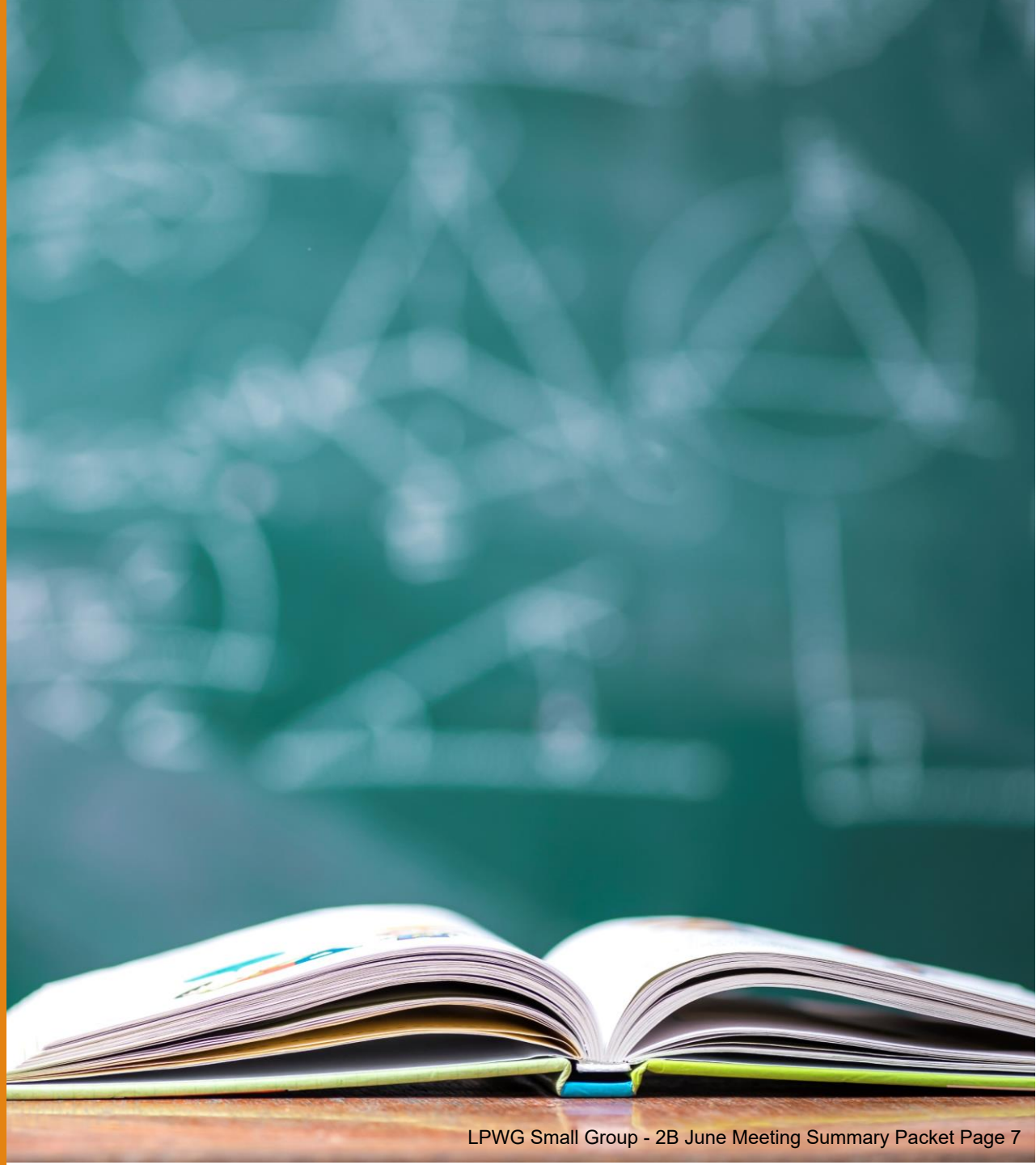
MFA's Next Steps

Discussion & Feedback



Purpose of the Background Report

- Set the stage, lay the foundation
- Document what we know
- Build consensus around what we know



Community Concerns



Costs



Liability



Notification/
Awareness



Clear
Guidance



Affordable
Housing Impacts



Education



Mapping



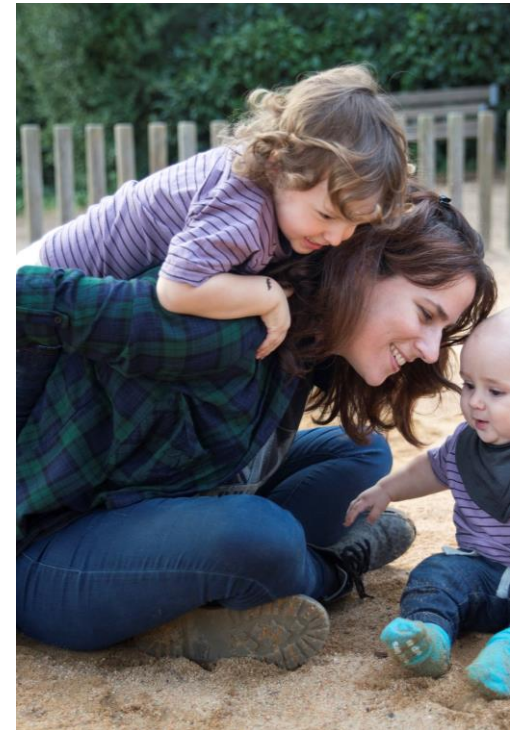
Reasonable
Remedies



Consistency

What is the Risk?

- Lead and arsenic:
 - Persistent and toxic chemicals.
 - Used in pesticides applied to orchards in the 1900s and 1950s
- Frequent, regular exposure to these chemicals in soil increases the likelihood of the following health risks:
 - Neurological damage and reduced physical growth, especially in children (lead).
 - Various cancers, heart disease, and diabetes (arsenic).
- These are manageable risks.



What are the Regulations?

Model Toxics Control Act (MTCA)

- Protects human health and the environment
- Investigation, cleanup, and prevention
- Implemented by the WA Department of Ecology

State Environmental Policy Act (SEPA)

- Considers/mitigates impacts on the built and natural environments
- Applies to larger development projects
- Requests/addresses input from agencies and the public
- Implemented by all WA government agencies

Local Land Use Regulations

- Regulates development (building permits, land divisions, site development, change in use proposals, etc.)
- Developed/adopted/implemented by cities and counties

Soil Sampling...

- Soil Sampling is necessary to determine if lead and arsenic are present, and, if so, to what degree.
- Two primary soil sampling methods:
 - Discrete: individual soil sample from a specific location
 - Composite: sample of soil collected from many locations
- Factors to determine appropriate sampling method:
 - Historic use: identify loading/mixing areas, potential areas of higher probability
 - Existing use: how much soil disturbance has occurred since historic use
 - Future use: where will buildings and pavement occur (less potential) and where will surface soil be exposed, i.e. yards, landscaped areas, etc (higher potential)

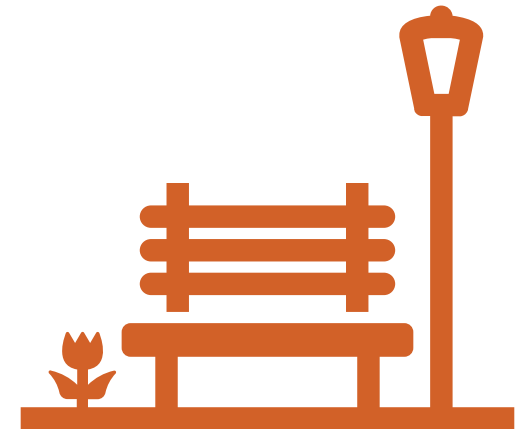
CASE STUDIES: WA STATE

Tacoma Smelter Plume

- Heavy metal contamination from Asarco Copper Smelter—1,000 square miles
- Mapping and information/education tools
- Public service announcements
- Cleanup actions in existing residential neighborhoods— excavate/replace contaminated soil in areas with exposed ground cover (e.g., yards and playgrounds)
- New residential developments require permanent remedies, complete removal of contamination (MTCA preference)

Schools & Parks on Former Orchards

- 26 schools, 2 parks in Chelan, Douglas, Okanogan, Yakima, and Spokane Counties
- Mitigate school grounds where kids interact with exposed ground surface (e.g., playgrounds and ballfields)
- Removal/deep mixing of contaminated soil, or combination of the two
- Capping with 8 to 12 inches of clean topsoil over geotextile fabric, and an environmental covenant



Case Studies: WA State

○ LeRoi Co Smelter Site (Northport)

- Copper/gold smelting 1896-1921, Lumber mill 1953-2001, resulted in area-wide lead and arsenic contamination on site and throughout community
- USEPA-lead effort to excavate contaminated soils, stockpile, cover with containment barrier; institutional controls (environmental covenant) for the site
- Implement exposure reduction measures

○ Pacific Wood Treating Co (Ridgefield)

- Wood-treating facility 1964 to 1993, resulted in release of dioxins with area-wide impacts, which are persistent in soil, like lead and arsenic
- Full excavation and replacement of soil on existing residential properties to avoid deed restrictions on individual properties

Case Studies: National

New Jersey

- Proactive process to address transition of contaminated orchard areas to residential use by Historic Pesticide Contamination Task Force (HPCTF)
- Estimate is 5% of state's acreage may have been contaminated
- Technical, economically viable strategies and guidance developed by HPCTF
- State-wide historical aerial mapping resource provided
- Remedies include capping with clean fill and deed notice, soil mixing to reduce concentrations, excavation, and off-site disposal
- Several recommendations related to soil sampling and best management practices: maintain grass cover, wash produce from gardens, wash hands and face, clean indoor surfaces where kids play

Case Studies: National

Wisconsin

- 50,000 acres of potentially contaminated orchards
- State developed guidance documents: FAQ information sheet and soil sampling guide for homeowners
- No mapping is available to the public, must request historical aerial photos from state agency
- Common BMPs include keeping lawns vegetated, using raised garden beds, keeping kids out of exposed soil
- Seller discloses, if known; buyer responsibility is the emphasis

Case Studies: National

North Idaho – Bunker Hill Superfund Site

- Area-wide impacts from early milling, mining, and mining waste
- Basin Property Remediation Program:
 - Over 7,000 individual properties remediated (site specific)
 - Typically, 6 to 12 inches contaminated soil excavated, demarcation layer installed, property is capped
- Residential clean fill/soil disposal program:
 - 1 cubic yard of gravel/topsoil per property allocated for cap maintenance
 - Free contaminated disposal containers available for regular home improvement or landscaping projects

Case Studies: National

New York City

- Clean Soil Bank: No-cost, virtual soil exchange operated by the city
- Matches projects generating surplus clean soils with new construction projects needing soil; government projects are prioritized to lower costs to taxpayers
- Uses clean soil only, from depths of 10' or greater; contaminated soil from surface excavations is sent to licensed disposal facility
- Purpose is clean soil recycling with the following benefits:
 - Retains clean soil resource
 - Minimizes soil transport and related fuel consumption
 - Reduced greenhouse gas emissions

Solutions We've Heard



Notification

- Notice to buyers (Federal Lead Paint Disclosure example), renters
- Notice to existing homeowners/renters



Public Education

- Widespread, reach variety of audiences
- Clear, transparent, don't create panic



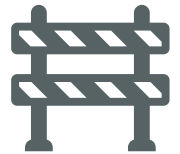
Mapping

- Online, central hosting
- Accurate data
- Include mapping in local government planning documents



Permitting

- Early information, guidance for development
- Clarity of comments during review
- SEPA checklist or application question



Construction & Development

- BMP's, guidance
- Soil bank/exchange
- Remove and replace
- Sod & demarcation layer
- Deed restriction, environmental covenant

MFA's Next Steps

Overview of Solutions

- Conceptual description of potential solutions
- Recommendation for “deep dive” analysis

Deep Dive Analysis

- Detailed analysis/feasibility study into selected solutions/remedies/approaches

Public Outreach & Education

- Target audiences & methods
- Content

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