



Model Code

for Developments on Historical Orchard Sites

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Acknowledgements

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1 Authority, Purpose, and Applicability

1.1 Authority

- 1.1.1 The Model Toxic Control Act (MTCA) created in 1989, Revised Code of Washington (RCW) 70A.305, and MTCA Cleanup Regulation Washington Administrative Code (WAC) 173-340, RCW 58.17 (Plats-Subdivisions-Dedications), RCW 36.70 (Planning Enabling Act), 36.70A (Growth Management Act), 36.70B (Local project review), 36.70C (Judicial review of land use decisions), and RCW 19.27.095 (Building permits application—Considerations-Requirements) are the authority for the enactment and administration of this model code.

1.2 Purpose and Applicability

- 1.2.1 The goal of this chapter is to enforce the requirements of MTCA when using the Washington State Department of Ecology's (Ecology) Model Remedies for Cleanup of Former Orchard Properties in Central and Eastern Washington¹ (Model Remedies), according to the requirements in RCW 70A.305, MTCA and WAC 173-340-390, Model remedies. This chapter provides a workable process to accomplish effective and expeditious cleanups in a manner that protects human health and the environment. This chapter is primarily intended to address releases of hazardous substances caused by past activities on historical orchard sites.
- 1.2.2 This chapter shall apply to historical orchard sites or properties that were occupied by an orchard prior to 1950 throughout Central and Eastern Washington state where lead- and arsenic-based pesticides were commonly used and may have resulted in lead and arsenic contamination. Lead and arsenic contamination may pose a threat to human health or the environment when properties are developed for uses other than agricultural such as commercial, residential, parks, public facilities, industrial, etc. The potential presence of lead and arsenic on a property can be determined by reviewing Ecology's Dirt Alert website or any other best available information such as whether the property was occupied by an orchard prior to 1950 or whether untested fill was imported onto the property.

¹ <https://apps.ecology.wa.gov/publications/documents/2109006.pdf>

1.2.3 Ecology has published guidance to assist parties with soil sampling and cleanup of former orchard lands. This chapter intends to integrate cleanup guidelines with the local government permit process. When new developments such as commercial, residential, parks, public facilities, industrial, etc. are proposed on historical orchards other than agricultural uses and when lead and arsenic are present above the state cleanup level, cleanup is required under MTCA.

1.2.4 Cleanup shall apply according to the eligibility criteria in [Appendix A](#)² of the Model Remedies document.

1.3 Ecology and Local Government Roles

1.3.1 The local government and Ecology shall work together to ensure compliance with state and local requirements. The specific processes and roles of Ecology and the local government are identified in Section 3: Implementation and Administration, and in Ecology's Model Remedies document.

1.4 SEPA Authority

1.4.1 All project proposals shall comply with RCW 43.21C, the Washington State Environmental Policy Act (SEPA) as applicable.

1.5 Data Findings—Dirt Alert Map and Other Resources

1.5.1 Ecology's Dirt Alert mapping tool has information on former orchard lands. Soil sampling is required to establish the location and extent of any contamination.

1.6 Relationship with Other Regulations

1.6.1 All other regulations applicable to the development according to the city/county code shall apply. When there is a conflict, the code most protective of human health and the environment shall apply.

² <https://apps.ecology.wa.gov/publications/documents/2109006.pdf>

2 General Regulations

2.1 Cleanup Planning

2.1.1 Coordination with agencies

- 1) When a new development is proposed on a historical orchard site that is other than agriculture, a collaboration between Ecology, the permitting jurisdiction, and other relevant agencies (e.g., Washington State Department of Health) shall take place according to Section 3 of this chapter.

2.1.2 Soil sampling

- 1) Soil sampling is required when a new development is proposed on a historical orchard site as described in Section 1.2.3.
- 2) When required, soil sampling shall be performed according to Ecology's Model Remedies document to identify the levels of lead and arsenic.
- 3) Within historical orchard sites where soil sampling indicates that concentrations of arsenic in soils are above 20 parts per million (ppm) and/or concentrations of lead in soils are above 250 ppm, cleanup will be required according to [Ecology's Model Remedies document](#).

2.2 Cleanup Options

- 2.2.1 Cleanup shall be completed according to [Ecology's Model Remedy document](#). Use Ecology's guidance document for compliance and cleanup options. Cleanup options are included in Table 1.

Table 1: Cleanup Options

	Model Remedy	Action	Consideration
Permanent	Excavation and removal	Excavate contaminated soil and properly dispose of it.	Careful sampling in advance provides understanding of how much soil must be removed. Compliance sampling of excavated areas required.
	Mixing	Mix contaminated soil with imported soil or deeper, cleaner soil.	Not for high concentrations of arsenic or lead (e.g., consider concentration >30 ppm average arsenic and/or >350 ppm average lead). Compliance sampling required.
Nonpermanent	Cap in place	Cover contaminated soils with a marker material and cap.	Hard caps include buildings, asphalt, or concrete, which are likely already part of the development. Soft caps include yards, landscaping areas and other open spaces. Institutional controls required. Compliance sampling of imported soil required.
	Consolidation and capping	Excavate and consolidate contaminated soils into an area of the property and place under a cap (see above).	Compliance sampling of excavated areas required. Compliance sampling of imported soil required. Institutional control required.

2.3 Special Provisions

2.3.1 The local government may allow tools to promote remediation of historical orchard sites such as:

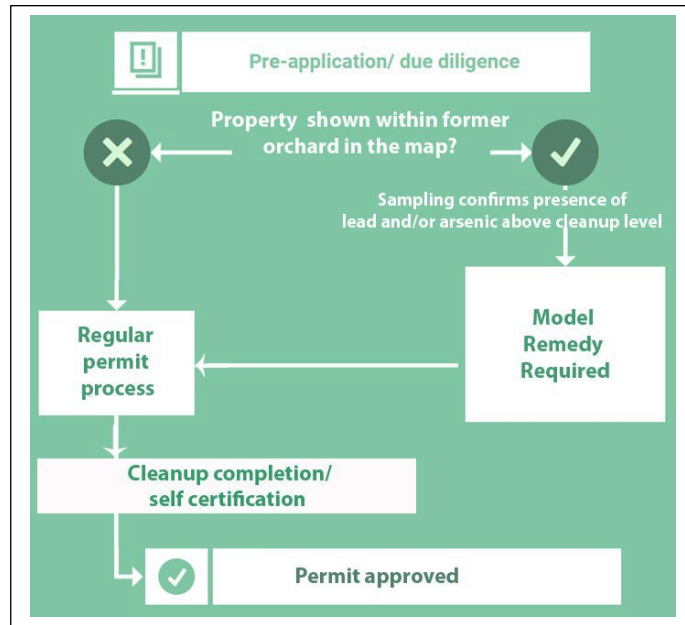
- 1) Provide additional density for projects where a remediation under this section is undertaken.
- 2) Develop a Transfer of Development Rights (TDR) program such as allowing the TDR from other areas to the sites where remediation is proposed or completed
- 3) Create an overlay district applicable to residential areas within the footprint of historical orchards. Overlay districts may include more flexible standards compared to the standard zoning regulations. These may include:
 - (a) Smaller lot sizes
 - (b) Increased allowance for impervious surface coverage
 - (c) Incentives for multifamily developments
 - (d) Reduced building setback requirements
 - (e) Creative stormwater requirements
 - (f) Allowing for additional nonresidential land uses of the property

3 Implementation and Administration

3.1 Integrated Permit Review

3.1.1 This section is intended to integrate sampling and cleanup of historic orchard sites into the local government's existing permit processes. The general process to address cleanup in the permits is described below:

- 1) Identify whether the property is located on a historical orchard. The historical orchard property can be determined by reviewing Ecology's Dirt Alert website.
- 2) Initial sampling shall be required for a property if the permit is applied for a historical orchard site as indicated in the Dirt Alert website.

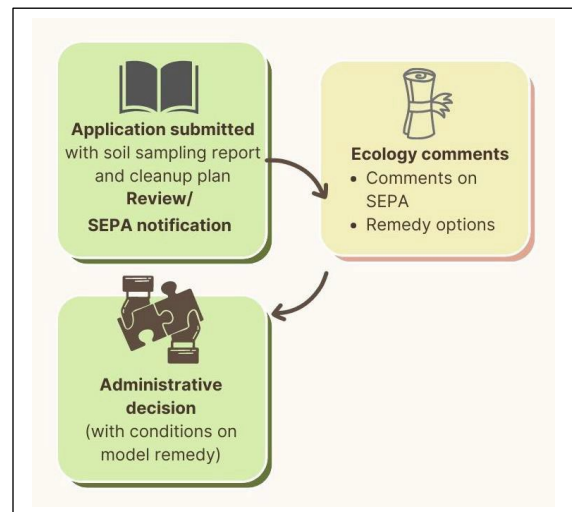


- (a) If the initial sampling indicates lead or arsenic concentrations below cleanup levels, then the applicant shall include the sampling results with the permit application. The regular permit process in the code shall be followed and no cleanup shall be required.
 - (b) If initial sampling shows lead or arsenic concentrations exceed cleanup levels, additional sampling shall be required according to Chapter 1—Soil Sampling in the Model Remedies document.
- 3) Applications submitted for the permit process shall include the soil sampling report and a cleanup plan. For step # 2(b), the applicant shall select a preferred cleanup approach, if needed, after consultation with Ecology and/or a qualified professional.

- 4) The local government's regular permit process takes place as follows:
 - (a) For SEPA projects, add conditions as part of SEPA review comments from Ecology for compliance with the cleanup selected.
 - (b) For SEPA-exempt projects, add conditions on the completion of the cleanup as selected by the applicant in step # 3.1.1 (3)
- 5) Once the applicant completes the cleanup, the applicant shall submit a self-certification in consultation with Ecology and file a notice to owner.
- 6) Additional details of integrating the cleanup with specific permit types are identified in subsections 3.1.2 through 3.1.6.

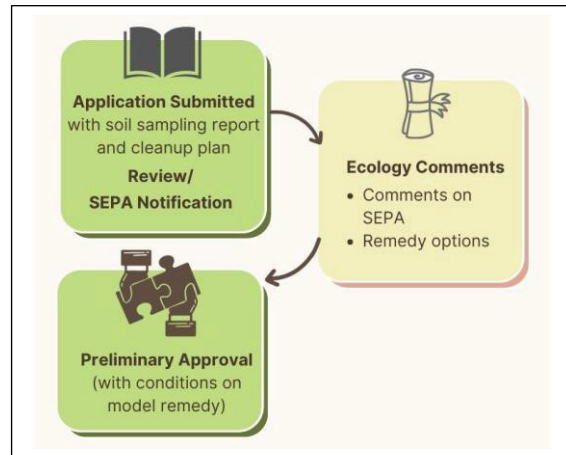
3.1.2 **Administrative permits with SEPA** (e.g., site plan permit).

- 1) Subsections 3.1.1 (1) through (3) shall apply as appropriate. The applicant shall submit a cleanup plan with the application.
- 2) Subsection 3.1.1 (4)(a) shall apply as the local government will add conditions as part of the SEPA review comments from Ecology for compliance with the proposed cleanup.
- 3) The local government completes review, makes a decision, and conditions the permit on the appropriate completion of the cleanup.



3.1.3 Quasi-judicial permits with SEPA (e.g., preliminary long subdivision)

- 1) Subsections 3.1.1 (1) through (3) shall apply as appropriate. Applicant shall submit a cleanup plan with the application.
- 2) Subsection 3.1.1 (4)(a) shall apply as the local government will add conditions as part of the SEPA review comments from Ecology for compliance with the proposed cleanup.
- 3) The local government staff and reviewing



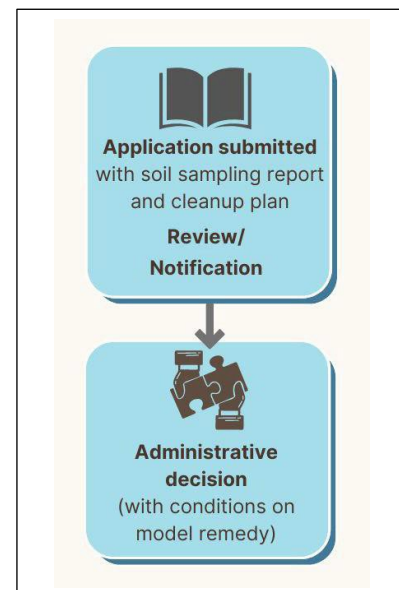
authority, planning commission or hearing examiner complete review, make a preliminary decision, and condition the permit on the appropriate completion of the cleanup based on [Ecology's Model Remedies document](#).

3.1.4 Administrative permits SEPA exempt (e.g., short subdivision)

The local government may adopt one of the two options mentioned below or any other process that meets the requirements of Ecology's Model Remedies process.

Option A

- 1) Subsections 3.1.1 (1) through (3) shall apply as appropriate. The applicant shall submit a cleanup plan with the application.
- 2) Subsection 3.1.1 (4)(b) shall apply as the local government will add conditions for compliance with the cleanup plan.
- 3) The local government completes review, makes a decision, and conditions the permit on the appropriate completion of the cleanup.



Option B

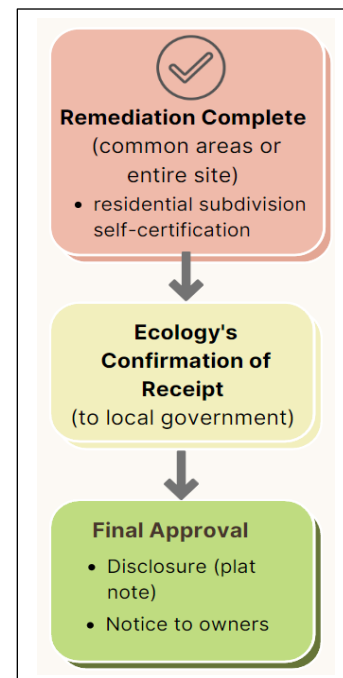
Review processes according to Option A only when requested voluntarily by an applicant. This may be due to requirements by a lending organization, and/or upon request by the applicant. In cases when the local government does not integrate the cleanup process in their permit review process, the developer/applicant shall be responsible to coordinate with Ecology for compliance with the MTCA requirements.

3.1.5 **Administrative permits final approval** (e.g., final approval of short or long subdivision)

- 1) The conditions in the preliminary approval in Sections 3.1.3 or 3.1.4 must be met as applicable, and cleanup of the common areas within the development must occur prior to final plat application.

Prior to submitting the application, the applicant shall select and complete cleanup Option 1(a) along with all other improvements required by the local government. The applicant may choose to select Option 1(b) instead of Option 1(a).

- (a) Site-specific cleanup. Cleanup shall be conducted for common areas, such as parks, open spaces, roads, etc., excluding individual lots.
- (b) The applicant/developer may choose to conduct cleanup for the entire site including the individual lots.



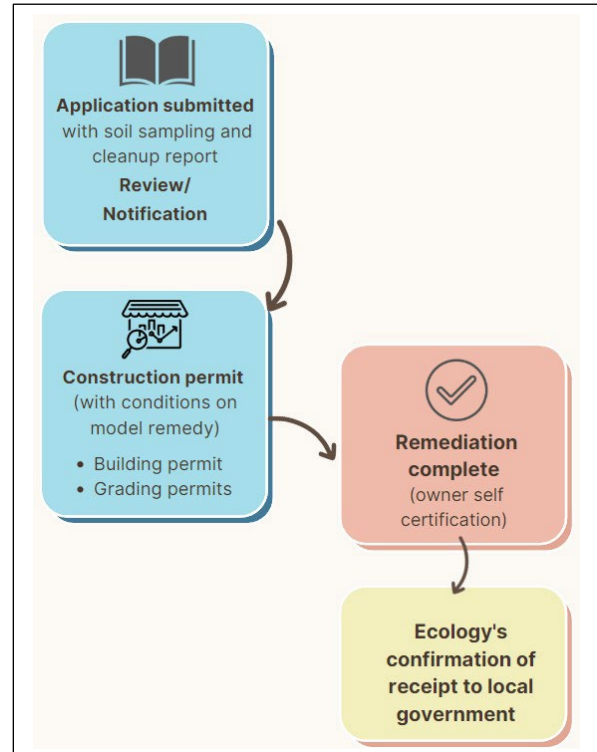
- 2) Once site-specific cleanup in 1(a) is complete, the applicant shall submit a residential subdivision self-certification form (Appendix A) to Ecology. Ecology will send written confirmation of receipt of the self-certification form to the local government.
- 3) The local government reviews the application for final approval for completion of appropriate conditions. The local government approves the final plat upon written confirmation from Ecology that they are in receipt of the self-certification form from the applicant. The final plat drawing shall include a plat note on completion of the cleanup.

The approved final plat shall be recorded with the county by the developer/applicant. A notice to owners (Appendix C) shall be filed to be attached along with all records by the developer/applicant.

3.1.6 Administrative permits SEPA exempt (individual lot developments)

This section applies to development of preexisting individual lots by property owners that are not parts of long or short subdivision processes.

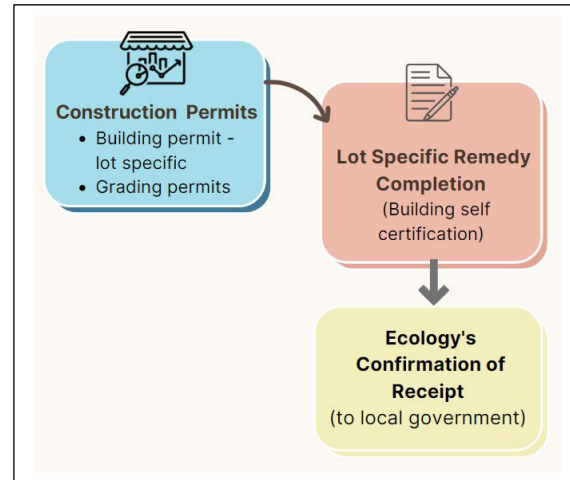
- 1) Subsection 3.1.1 (1) through (4) shall apply as appropriate. The applicant shall submit a cleanup plan with the application
- 2) The local government completes review of the plot plan and issues the building/construction permit. Permit conditions include a cleanup approach.
- 3) Cleanup on the property and building construction will be completed simultaneously by the developer/applicant. The developer/applicant provides the residential building self-certification form (Appendix B) to Ecology. The developer/applicant also files a notice to owner form (Appendix C) on completion of the cleanup to be attached with all records. Ecology will send written confirmation of receipt of the self-certification form to the local government.



3.2 Completion of Remedy

3.2.1 Construction permits

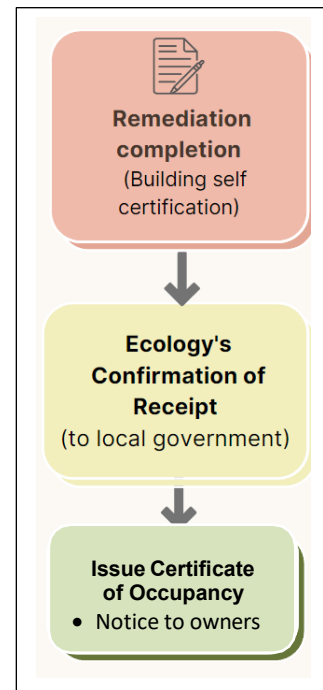
- 1) After completion of the applicable phases of permit processes mentioned Section 3.1, the construction permits applications (building and/or grading permits) shall be submitted by the applicant. For individual construction permits that are not related to any other permits, SEPA threshold shall be determined during the permit application. Subsections 3.1.1 (1) through (4) shall apply as appropriate. The applicant shall submit a cleanup plan with the application.
- 2) For subdivisions (short or long), grading permits shall be applied for upon preliminary approval of the subdivision in Sections 3.1.3 and 3.1.4. Cleanup of common areas within the development must occur prior to final plat application and approval as indicated in Section 3.1.5
- 3) The applicant shall complete all cleanups in conjunction with site developments and construction. For subdivisions (short or long), if cleanup is already complete for all lots, the applicant shall complete the residential building self-certification form (Appendix B) and submit it to Ecology. Ecology will send written confirmation that they are in receipt of the self-certification form to the local government.



3.3 Final Approval

3.3.1 This section is intended to provide further clarifications for the issuance of a certificate of occupancy as the final step.

- 1) Once cleanup is complete, the applicant or property owner shall submit the residential building self-certification form (Appendix B) to Ecology and record it with the county. Ecology will send written confirmation of receipt of the self-certification form to the local government. A notice to owner form (Appendix C) shall also be recorded and attached along with all other records.
- 2) After the applicant has complied with all necessary conditions pertinent to the project, the certificate of occupancy shall be issued.



3.4 Exemptions

3.4.1 The following activities may be exempt from cleanup requirements:

- 1) Conservation and/or preservation of critical areas and shorelands when they comply with the critical areas and/or shoreline regulations.
- 2) Redevelopment of areas that have completed and documented a cleanup previously and redevelopment that does not involve excavation below the existing capped areas.
- 3) Land subdivisions that do not involve further development. For example, plats that are processed for estate planning purposes and are not intended for further developments within the final plat approval period may be exempt from cleanup requirements and remedy selection. Such lots shall record a conservation easement stating that cleanup will need to be implemented prior to removal of the conservation easement. The conservation easement shall be removed if:
 - (a) Soil sampling shows concentration of lead and arsenic below the state cleanup level, or
 - (b) An appropriate cleanup is completed according to Ecology's Model Remedies document
- 4) Any activity by homeowners for gardening or similar purpose that does not involve excavation below the existing capped areas.

3.4.2 The local government may develop a set of exemptions tailored to their needs if such exemptions do not result in increased exposure to lead and arsenic above the state cleanup level or pose a threat to human health or the environment. The local government may develop a set of performance standards or can consider some activities for exemption. These may include but are not limited to:

- 1) Emergency activities necessary to prevent an immediate threat to public health, safety, or welfare.
- 2) Maintenance and operation of existing structures or systems.
- 3) Modification of any existing structures that do not involve excavation.
- 4) Removal of hazardous trees and vegetation and, when necessary, measures to control or prevent a fire or halt the spread of disease or damaging insects consistent with the state Forest Practices Act.
- 5) Educational and scientific research.
- 6) Construction or modification of boundary markers.
- 7) Site investigation work necessary for land use applications such as surveys, soil logs, percolation tests and other related activities. In every case, exposed/excavated areas shall be immediately covered.

3.5 Monitoring and Enforcement

Ecology's Dirt Alert mapping tool will provide information that will be available to the public.

4 Definitions

4.1 Definitions

- 4.1.1 Administrative permits. This includes permits processed administratively by staff. Administrative permits include short plat or short subdivision, final plat or final subdivision, building permits, site plan permits, etc. Administrative permits also include single-family permits, building and grading permits, utility permits, sign permits, boundary line adjustments, etc. These permit types consist of a) projects within SEPA thresholds and b) projects categorically exempt from SEPA.
- 4.1.2 Cleanup level. Lead concentrations above 250 milligrams per kilogram (mg/kg) or parts per million (ppm) and arsenic concentrations above 20 mg/kg or ppm are above Model Toxics Control Act Method A cleanup levels.
- 4.1.3 Historical orchard site. Property that was occupied by an orchard prior to 1950. On such orchard sites, historical application of lead arsenate (LA) pesticides on tree fruit orchards has resulted in the accumulation of lead and arsenic in shallow soil at concentrations above state cleanup levels.
- 4.1.4 Notice to owners. Notice to Owner, or Disclosure Statement, is a document that prime contractors must provide to the property owner about the remediation on a property, once such remediation is complete.
- 4.1.5 Plat notes. Plat notes are restrictions and requirements written on the plat map for a property or subdivision. In theory they are discovered by a title search and disclosed during a property transaction; however, a property buyer may not look at these notes in detail. This can be used in combination with other methods, such as notice to owners, and covenants, conditions, and restrictions.
- 4.1.6 Quasi-judicial. Quasi-judicial means “courtlike.” Quasi-judicial for the purpose of this document refers to a permit process conducted by local government’s elected official or advisory or hearing bodies that is similar to a court proceeding, e.g., a hearing conducted by a commission.

Appendices

Appendix A: [Residential subdivision self-certification form](#)

Appendix B: [Residential building self-certification form](#)

Appendix C: [Notice to owner form](#)