



Residential Redevelopment and Land Use Control Policy
Revision # 1, April 2022

What You Need to Know

Purpose

This fact sheet provides information regarding Maryland Department of the Environment's (MDE) revised policy for residential redevelopments that may require land use controls (LUCs) and revises the policy, effective April 2022. This policy applies to sites under the oversight of the Land Restoration Program, including through the Voluntary Cleanup Program (VCP), and Controlled Hazardous Substances Technical Review Service, and other Land and Materials Administration programs as applicable.

Residential Redevelopment Policy

MDE's policy would allow LUCs to be used to mitigate exposure to contamination at some types of residential properties, under certain conditions. The policy is intended to protect public health and the environment by ensuring that any LUCs are properly maintained by a single, responsible entity in perpetuity or until the LUCs are no longer needed.

1. NON-RENTAL PROPERTIES WHERE THE OWNER OF THE RESIDENTIAL UNIT ALSO OWNS THE LAND

Examples: freestanding homes, duplexes and townhouses

- The property where the residential unit is located must meet the Tier 1A residential unrestricted land use, as defined in the *Cleanup Standards for Soil and Groundwater Interim Final Guidance* (October 2018):

“Properties that have a residential unrestricted use or have a projected future unrestricted residential use are required to remedy hazardous substances in the soil to the applicable residential soil standard¹. Use of either treatment technologies or removal of hazardous substances in the soil to the applicable soil standard¹ is required for this land use. Attainment of the soil standard¹ must be demonstrated following the remedial action. **The residential soil standard¹ exposure scenario is applicable from 0-10' Below Ground Surface (BGS) or to the zone of saturation.** When the zone of saturation is less than 5 feet the LRP will require no less than 3 feet of clean fill to meet the unrestricted use requirements. Some sites may not be suitable for unrestricted residential use regardless of the amount of clean fill. Additional



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guidance on Defining the Zone of Saturation for Soil Media may be found in the LRP ``What You Need to Know fact sheet, Defining the Zone of Saturation for Soil Media, April 2022.

- LUCs, such as environmental caps and vapor mitigation systems, may not be used to mitigate potential exposure to soil and/or soil gas that does not meet the residential standard¹.
- Exceptions:
 - A land use restriction prohibiting the use of groundwater for any purpose may be required at sites with groundwater contamination at concentrations exceeding State or federal drinking water standards or properties that are served by public utilities and the drinking water aquifer is not sampled.
 - For projects involving multiple residential units, soil exceeding the residential soil standard¹ may be removed from the area where the residential units will be constructed and consolidated in a separate common area, subject to an environmental cap maintained by a third party (an entity or person that is not an individual homeowner in the development).

2. CONDOMINIUMS WITH UNITS ON THE GROUND FLOOR

Examples: condominium townhouses, multifamily condo buildings with units on the ground floor

- The same requirements under #1 above apply.

3. CONDOMINIUMS WITH NO UNITS ON THE GROUND FLOOR

Examples: multistory, multifamily condo buildings with garage, lobby, or commercial uses on the ground floor

- The property must meet, at a minimum, the Tier 1B residential restricted land use as defined in the *Cleanup Standards for Soil and Groundwater Interim Final Guidance* (October 2018).
- Properties that have a residential restricted use or have a projected future residential restricted use are required to remedy hazardous substances in soil to the applicable residential soil standard¹. Removal of hazardous substances in the soil to the applicable soil standard¹, other remedial measures/treatment technologies, or engineering



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controls as approved by the MDE is required for this land use. Attainment of the soil standard¹ must be demonstrated following the remedial action. When the zone of saturation is less than 5 feet the LRP will require no less than 3 feet of clean fill to meet the unrestricted use requirements. Some sites may not be suitable for unrestricted residential use regardless of the amount of clean fill. A residential restricted land use may use one or more LUCs imposed as a condition of residential use to mitigate potential exposures to hazardous substances in soils.

- The developer must provide assurances satisfactory to the MDE that the entity responsible for the operation and maintenance of the LUCs is adequately funded and sufficiently stable to protect public health and safety in perpetuity. This will include a form of financial assurance in an amount sufficient to cover the operation and maintenance and anticipated repairs of LUCs for a rolling period of 30 years, as calculated by the developer and approved by the MDE.
- The NFRD/COC and environmental covenant must include:
 - Requirement for the entity responsible for operating and maintaining the LUCs to follow an approved operation and maintenance plan, which is incorporated into the NFRD/COC and environmental covenant. The entity must retain an environmental consultant to conduct all inspections and submit to MDE all reports required by the operation and maintenance plan.
 - Requirement that each unit owner be notified of the environmental cap and/or vapor mitigation system and prohibition on disturbing the cap and/or vapor mitigation system.
 - Requirement for each unit owner to provide access to the entity and MDE for inspection of all areas necessary to maintain the environmental cap and/or vapor mitigation system, including inside units if necessary.
 - Requirement for the entity to retain an environmental consultant to conduct annual inspections of the environmental cap and/or vapor mitigation system and submit to MDE an annual report with the results of the inspections.

4. RENTAL PROPERTIES

Examples: rental houses and townhouses, multifamily apartment buildings with or without units on the ground floor

- The property must meet, at a minimum, the Tier 1B residential land use as defined in the *Cleanup Standards for Soil and Groundwater Interim Final Guidance* (October 2018).



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- Properties that have a residential restricted use or have a projected future residential restricted use are required to remedy hazardous substances in soil to the applicable residential soil standard¹. Removal of hazardous substances in the soil to the applicable soil standard¹, other remedial measures/treatment technologies, or engineering controls as approved by the MDE is required for this land use. Attainment of the soil standard¹ must be demonstrated following the remedial action. When the zone of saturation is less than 5 feet the LRP will require no less than 3 feet of clean fill to meet the unrestricted use requirements. Some sites may not be suitable for unrestricted residential use regardless of the amount of clean fill. A residential restricted land use may use one or more LUCs imposed as a condition of residential use to mitigate potential exposures to hazardous substances in soils.
- A single building owner must be responsible for operating and maintaining the LUCs in perpetuity to protect public health and safety.
- The NFRD/COC and environmental covenant must include:
 - Requirement for the property owner to follow an approved operation and maintenance plan, which is incorporated into the NFRD/COC and environmental covenant. The owner must retain an environmental consultant to conduct all inspections and submit all reports required by the operation and maintenance plan.
 - Requirement for leases to include notification of the environmental cap and/or vapor mitigation system and prohibition on disturbing the environmental cap and/or vapor mitigation system, unless the property owner demonstrates that the environmental cap and/or vapor mitigation system is physically inaccessible to tenants.
 - Requirement for leases to include access provisions for property owner(s) and MDE inspection of all areas necessary to maintain environmental cap and/or vapor mitigation system, including inside units if necessary.
 - Requirement for property owner(s) to retain an environmental consultant to conduct annual inspections of the environmental cap and/or vapor mitigation system and submit to MDE an annual report with the results of the inspections.
 - Limitation on conversion to condos as described below.
- Future conversion to or construction of condos:
 - Apartment units on the **ground floor** may not be converted to condominiums or other forms of owner-occupied dwelling units unless the building owner provides sampling data or other evidence satisfactory to the MDE that the operation and



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- maintenance of LUCs is no longer necessary (i.e. the property meets all the requirements under #1 above). The same limitation would apply to the future construction of a new owner-occupied dwelling unit on the site.
- Apartment units on **upper floors** may be converted to condominiums if the operation and maintenance of LUCs is no longer necessary (i.e. the property meets the requirements under #1 above), or the developer provides assurances satisfactory to the MDE that a single entity will be responsible for the operation and maintenance of LUCs and that entity is adequately funded and sufficiently stable to protect public health and safety in perpetuity (i.e. the property meets all the requirements under #3 above). The same limitation would apply to the future construction of a new owner-occupied dwelling unit on the site.

¹The residential standard may be based on any one of the six cleanup criteria that Section 7-508 of the Environment Article, Annotated Code of Maryland allows VCP participants to use to develop a Response Action Plan: 1. Uniform numeric risk-based standards; 2. Standards from a site-specific risk assessment; 3. Background levels; 4. Federal or State soil or water quality standards; 5. Standards based on federal or State Maximum Contaminant Levels (MCLs); and 6. Any other federal or State standards.

Uniform risk-based standards developed for hazardous substances classified as “non-cancer causing” are generally calculated using a Hazard Quotient of 0.1. Uniform risk-based standards developed for hazardous substances classified as “cancer-causing” are generally calculated using a target Cancer Risk of 1E-6. The cleanup standards provided in MDE’s October 2018 guidance document, *Cleanup Standards for Soil and Groundwater Interim Final Guidance*, are calculated to be ten times more protective than the MDE’s remedial action requirement of a Hazard Quotient of 1 or Cancer Risk of 1E-5. This safety factor allows for potential additive risk factors from multiple hazardous substances at a property.



Maryland
Department of
the Environment

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Additional
Resources

Cleanup Standards for Soil and Groundwater, October 2018: Interim Final Guidance (Update No. 3), Maryland Department of the Environment.

Amendment#1, Cleanup Standards for Soil and Groundwater, October 2018: Interim Final Guidance (Update No. 3), Maryland Department of the Environment.

Defining the Zone of Saturation for Soil Media What You Need to Know, April 2022, Maryland Department of the Environment.

United States Environmental Protection Agency. Regional Screening Levels (RSLs) - Generic Tables (November 2020). [epa.gov/risk/regional-screening-levels-rsls-users-guide-november-2020](https://www.epa.gov/risk/regional-screening-levels-rsls-users-guide-november-2020).

For More Information
or questions regarding Residential Redevelopment and LUCs
please contact: The Land Restoration Program at 410-537-3493
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