

Welcome to

Design & Remediation

Cleaning up residences and
privately owned properties





Testing Port Hope Properties

As part of the Port Hope Area Initiative (PHAI), the Port Hope Project is the cleanup of approximately 1.2 million cubic metres of historic low-level radioactive waste from various sites in Port Hope. The waste is being transported to an engineered aboveground mound where it is being safely contained.

More than a decade of independent surveys show that people enjoy living in Port Hope, know about the project and are confident that this large environmental cleanup is being completed safely and compliantly.

The Port Hope Project includes a radiological survey conducted on approximately 4,800 properties in urban Port Hope, plus a small number in rural Port Hope. The testing is being undertaken to confirm which properties have historic low-level radioactive waste (LLRW) and require a cleanup.

All property radiological testing is being completed at no cost to the property owner.

The majority of properties will not require a cleanup. Those property owners will receive a Compliance Letter stating the property meets PHAI Cleanup Criteria and no further testing is required.

If waste is found on a property, additional testing is done to confirm the volume of waste. The property is then moved to the design phase, which is followed by the

cleanup. Canadian Nuclear Laboratories (CNL), the company undertaking the PHAI, will work with the property owner to create a remediation and restoration agreement for the work to be completed on the property.

Once the property and others in the neighbourhood have been cleaned up and restored, Compliance Letters will be issued.

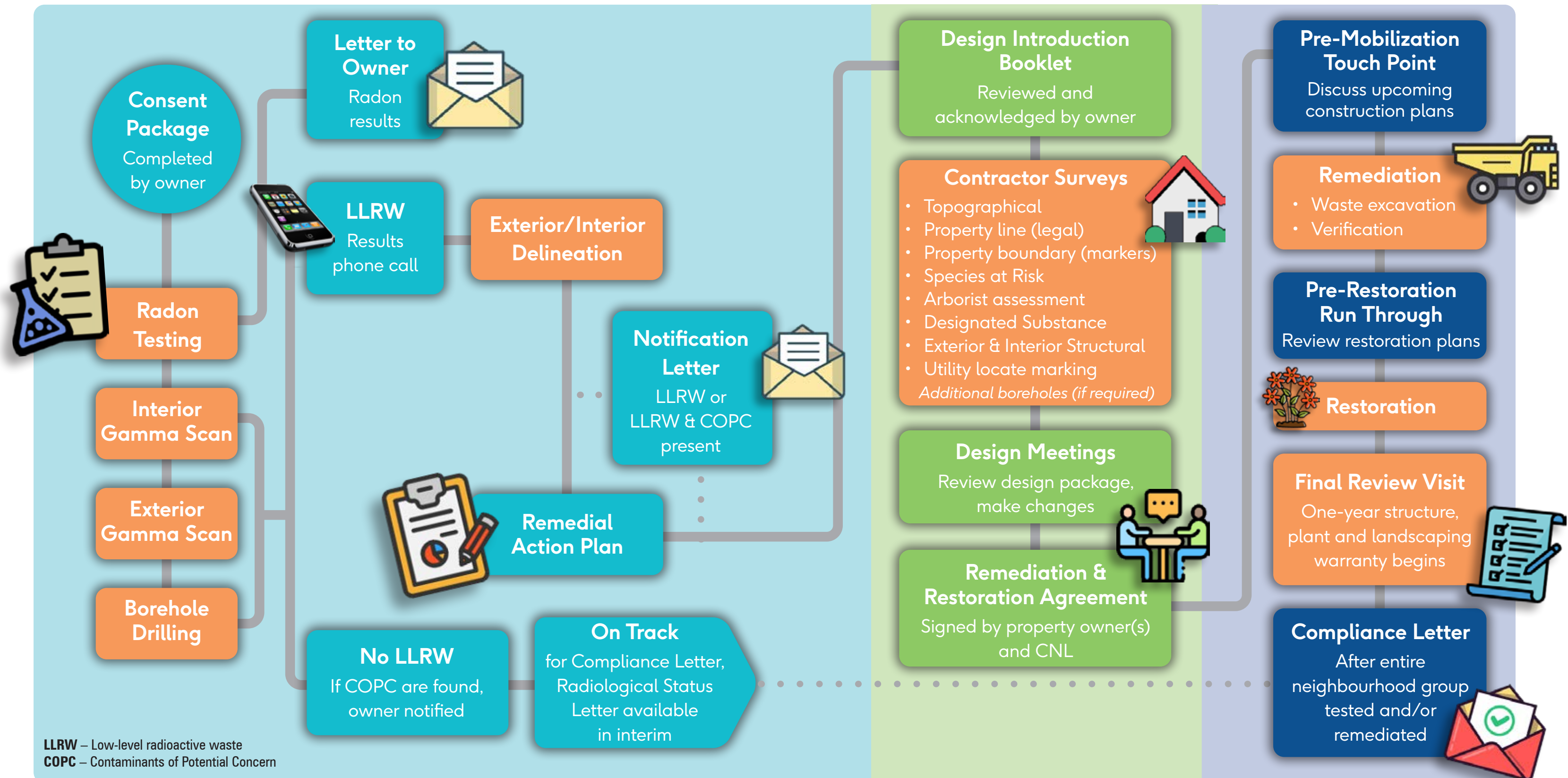


Private Properties: From Consent Package to Compliance Letter

Property Radiological Survey

Design Phase

Remediation and Restoration



Property Radiological Survey

A number of residences and private properties throughout the urban area of Port Hope will require a cleanup and restoration. These properties are determined through a series of tests performed as part of the Property Radiological Survey of approximately 4,800 properties.

1. Consent and Scheduling

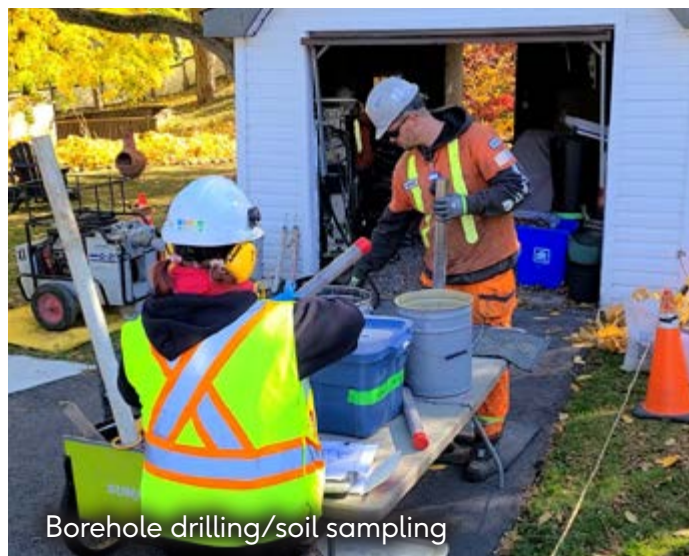
Property owners are contacted for written consent to conduct the property testing.

2. Testing

Home visits will be required to complete the testing. All visits are scheduled directly with property owners. Radon monitoring is in place for a six month term. Multiple soil sampling visits can be required based on delineation requirements.



Radon monitoring



Borehole drilling/soil sampling



Exterior gamma radiation monitoring



Interior gamma radiation monitoring

3. Review and Notification

CNL receives and reviews results; owners of properties that have historic low-level radioactive waste are notified.

4. Property Moves to Design Phase

If a property has been identified through PHAI testing to have historic low-level radioactive waste present, it is then moved to the Design Phase.

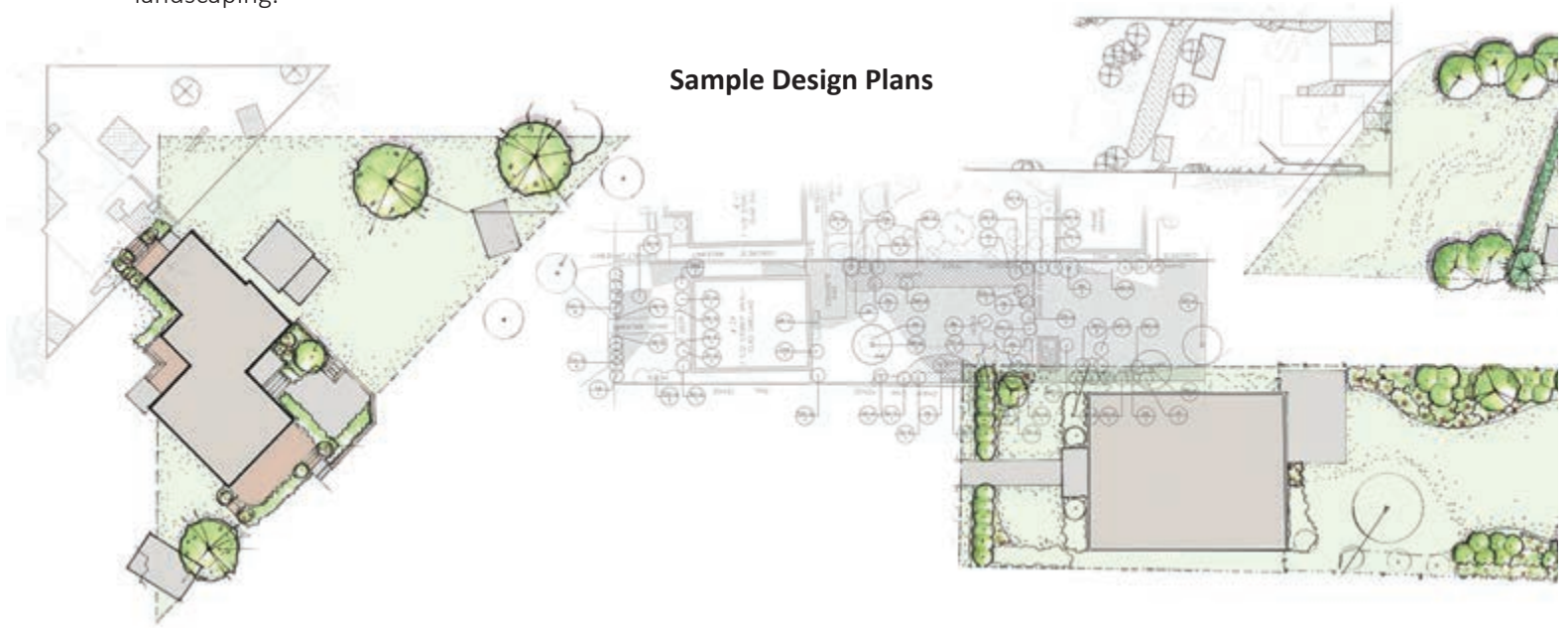
Design Phase

1. Test Results Sent to Design

CNL provides the results of the testing to its design consultant.

2. Design Appointments

The design consultant schedules multiple appointments with owners to map the property's key features, utilities and landscaping.



3. Design Meetings

CNL Communications holds meetings with the designer and property owner to review the remediation plan in which the design consultant has considered the individual property, adjacent properties and the overall neighbourhood.



4. Remediation & Restoration Agreement

Property owner review of final design package leads to sign off of the Remediation & Restoration Agreement by the owner and CNL.

Cleanups are typically scheduled by neighbourhood to minimize disruption to the community. Properties within the neighbourhood may not all be chosen in the same construction season in order to perform remediations safely.

Remediation and Restoration

The design information is combined with cleanup details in one package known as the Remediation & Restoration Agreement. This package provides the owner with a detailed description of the proposed work for their property. Once the Remediation & Restoration Agreements for a neighbourhood are finalized and signed by the owners and CNL, the property can be incorporated into the schedule for remediation that construction season.

Remediation activities include the following:



1. Site preparation

Identify sensitive features and utilities.



2. Pre-mobilization removals

Remove trees, shrubs, impacted structures, store property owner items to facilitate cleanup.



3. Excavation

Remove waste, verify soil meets cleanup criteria, and backfill.



4. Restoration

Restore property features including decks, structures, fences and landscaping to building code specifications.

Interior Design and Remediation

Interior remediations follow a structured process to ensure safety and full restoration.

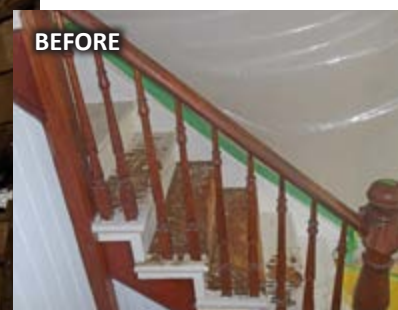
Once a property is selected for interior remediation, site visits are conducted to assess the scope of work. This will include a walkdown and, if needed, further investigation such as drywall removal. If structural work is identified, a design appointment is scheduled with property owners to review the details.



Note: The number of visits will vary depending on the property. Most owners will remain in their home throughout the remediation; alternate accommodation plans will be reviewed on a case-by-case basis.



A final walkdown is completed with the property owner, and a warranty letter is provided to the property owner.



Pathways to Compliance

PORT HOPE AREA INITIATIVE



FULL PARTICIPATION

PHAI Remediation & Restoration

- CNL will fully remediate the property by removing all low-level radioactive waste (LLRW) and ensuring compliance with PHAI Cleanup Criteria
- Once remediation is complete, CNL will restore the property, including replacing any features that were removed such as fences, decks, driveways, patios, landscaping, and sod.
- **Best for homeowners who:** Will work with CNL to manage the entire process from excavation to full restoration, ensuring the property is cleaned up with no future liability.



OWNER-DIRECTED REMEDIATION

Application of Special Circumstance Protocol

- Homeowners work with CNL to select specific areas where remediation will take place on the property and identify areas they want to preserve as-is (e.g., keeping a mature tree, existing landscaping, or structures).
- **Best for homeowners who:** Want to preserve certain property features while still participating in the remediation process. They will accept liability for remaining contamination unless a compelling reason to remove it becomes available.



DO NOT PARTICIPATE

Opting Out of the PHAI

- Homeowners decline to have CNL conduct remediation on their property.
- Any LLRW contamination present will remain and the homeowner assumes full responsibility for future risks, legal implications, and any required soil management in the future.
- **Best for homeowners who:** Do not wish to proceed with the program and are willing to accept all future liability associated with contamination



Important Information for Property Owners

Here is what to expect during the PHAI Design, Remediation and Restoration phases.

Assessments

- An exterior structural assessment of your property must be completed by engineers as part of the design phase. An interior structural assessment is recommended and will be scheduled to document important information and for the owner's protection.
If concerns are identified during the assessment, PHAI's Engineer of Record will send you (the property owner) a notice outlining any structural or safety concerns.
- If dangerous substances (such as asbestos, mercury, lead, etc.) are identified during the Designated Substance Survey of your property, you will be notified. If the presence of designated substances impacts CNL's ability to clean up areas of your property, CNL will discuss options with you.
- A property boundary survey will be completed during the design phase. The survey will not be registered with the Northumberland County land registry office because it is undertaken for CNL's project purposes only.
- If your property has been designated a heritage property by the Municipality of Port Hope, the Province of Ontario or the Government of Canada, a heritage assessment will be completed by a heritage specialist to ensure that preservation recommendations are integrated in the applicable design and cleanup work.
- A tree subject matter expert may be required to visit your property. The tree expert will assess the size, health and condition of trees. If a tree will be adversely affected by the work required to remove historic low-level radioactive waste, the expert will consider possible mitigation measures to preserve the tree. If the property owner indicates that they do not want the tree removed, the application of the Special Circumstances Protocol- Property Owner Directed Remediation Constraint allows for waste to be left on a property to preserve trees. CNL is committed to protecting the Port Hope environment while fulfilling the PHAI mandate to remove historic low-level radioactive waste.

Obligations

- Per the Legal Agreement that governs the PHAI, if Contaminants of Potential Concern (COPC) are identified at any stage during soil testing on your property, CNL is required to notify you (the property owner), the Municipality of Port Hope and the Ministry of Environment, Conservation and Parks of the type and locations of COPC.
 - CNL has a Special Circumstances Protocol that may be applied in situations that prevent the complete remediation of low-level radioactive waste due to the presence of a Constraint. The Special Circumstances Protocol is used when LLRW removal is not considered safe, practical or reasonably achievable. Situations that might require special circumstances include restricted access and property-specific physical, operational, environmental, social/heritage, or property owner directed remediation constraints that may be encountered during the design phase or the cleanup work on the property.
 - CNL's restoration work is generally completed on a "like for like" principle. For example, fences will be replaced with similar fences, sheds replaced with sheds of the same size and material. Bylaws and other restrictions govern the replacement or relocation of structures or landscaping on a property. It is not within the scope of the PHAI for CNL to manage requests for upgraded features; for example, an asphalt driveway cannot be replaced with a concrete or paving stone driveway.
- If you (the owner) would prefer to complete landscaping or other restoration yourself or by engaging your own contractor, that can be negotiated with CNL during the design phase. CNL will leave the work site in the condition as negotiated and described in the Remediation & Restoration Agreement; however, CNL will not assist with permitting or provide warranty for work completed by the property owner.
- When restoration has been completed on your property, a walk-down will be performed with you and a detailed warranty packaged provided explaining landscaping care. A one-year warranty will apply to all CNL-related work completed on a property.

Cleanup Timeline

- The PHAI is a finite project with a timeline, and properties where the owner did not respond to CNL's requests to participate or chose not to participate will be de-scoped and removed from the PHAI.
- If a property owner declines to participate in the cleanup design phase or does not sign a Remediation & Restoration Agreement, there will not be a future opportunity to have historic low-level radioactive waste removed at no cost to the owner.
- Once CNL has completed remediation work in your neighbourhood, properties where the owner did not participate in the PHAI will not be eligible for future PHAI cleanup work, even if the property is sold.



Canadian Nuclear
Laboratories

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