



9.0 DEFINITIONS

Hazardous Substance – As defined in s. 292.01, Wis. Stats., “means any substance or combination of substances, including any waste of a solid, semisolid, liquid or gaseous form which may cause or significantly contribute to an increase in the mortality or an increase in serious irreversible or incapacitating reversible illness, or which may pose a substantial present or potential hazard to human health or the environment because of its quality, concentration or physical, chemical or infectious characteristics. This term includes, but is not limited to, substances that are toxic, corrosive, flammable, irritants, strong sensitizers or explosives as determined by the department” (Department of Natural Resources).

When a hazardous substance is not properly contained and has been discharged into the environment, it becomes a contaminant.

Contaminated Site – A site (parcel or tract of land) affected by the discharge of hazardous substances (contaminants), which occur at concentrations above background levels and where assessment indicates it poses, or is likely to pose an immediate or long-term hazard to human health or the environment. Site contamination typically occurs below the surface of the ground (example: within the soils or ground water). A site can be contaminated by many human actions including the discharge of solids and liquid pollutants at the soil surface; pesticide application; subsurface releases from leaks in buried tanks, pipes, and landfills; and, deposition of atmospheric contaminants such as dusts and particles containing lead. (This is a definition developed for the REPM. The primary base definition was obtained from the Environmental Encyclopedia 3rd Edition).

The following terms are from the Wisconsin Department of Natural Resources (DNR), Glossary of terms used in BRRTS (Bureau for Remediation and Redevelopment Tracking System):

- Leaking Underground Storage Tank (LUST): A LUST site has contaminated soil and/or groundwater with petroleum, which includes toxic and cancer-causing substances.
- Environmental Repair Program (ERP): ERP sites are sites other than LUSTs that have contaminated soil and/or groundwater. Examples include industrial spills (or dumping) that need long term investigation, buried containers of hazardous substances, and closed landfills that have caused contamination.
- Continuing Obligations: Certain actions for which property owners are legally responsible. They still apply after a property is sold - each new owner becomes responsible for them.
- No Action Required by RR (Remediation and Redevelopment) Program (NAR): There was, or may have been, a discharge to the environment and, based on the known information, the DNR has determined that the responsible party does not need to undertake an investigation or cleanup in response to that discharge.
- End Date: Date of case closure. Closure means the DNR determined that a satisfactory environmental cleanup was completed and sent a case closure approval letter to the

responsible party. However, for "No Action" status the end date generally refers to the date that the DNR determined that no site investigation was required.

- Start Date: This is usually the date that the DNR was notified of a discharge to the environment, or otherwise became aware of a discharge to the environment.
- These terms are used by BRRTS to indicate the status of contaminated properties:
 - Open: Spills, LUST, ERP, VPLE and Abandoned Container activities in need of clean up or where cleanup is still underway.
 - Closed: Activities where investigation and cleanup of the contamination has been completed and the state has approved all cleanup actions.
 - No RR Action Required: There was, or may have been, a discharge to the environment and, based on the known information, the DNR determined that the responsible party does not need to undertake an investigation or cleanup in response to that discharge.

9.1 INVESTIGATING AND ACQUIRING CONTAMINATED PARCELS

WisDOT's policy is to evaluate all parcels to be acquired for a highway improvement project to determine if any warrant a hazardous materials investigation. Soil or groundwater, or both, could be impacted by contaminants, and usually this is because of leaking underground storage tanks or spills. The goal is to identify all potentially contaminated sites on a project as early as possible in the facility development process to allow time to consider the options if contamination is discovered, to make good decisions about avoiding or acquiring the contaminated area, and to allow time for remediation. As a rule, these three criteria must be met before WisDOT will acquire contaminated property:

1. Area of contamination cannot be avoided;
2. Area of contamination cannot be remediated by others within the proposed letting schedule; and,
3. Project cannot be deferred or project deferment would substantially exceed the cost of remediation.

9.2 DETERMINING POTENTIAL FOR CONTAMINATION

When the WisDOT regional Real Estate (RE) project manager and/or acquisition agents review the title report, environmental documents, and other available information, they should try and determine if there is a potential for contamination on any parcels to be acquired. We should look for evidence that any previous owner(s) may have run a gas station, had a dry-cleaning business, etc., on the affected parcel of land. Likewise, if the environmental document indicates the potential for contamination, the regional environmental coordinator must contact the regional RE project manager as soon as practicable. If you need help determining if you need a hazmat investigation during the real estate phase of the project, contact your regional environmental coordinator and/or hazardous materials coordinator. For one of the more complete places of quick reference, offering an overview and summary of what happens when we encounter contaminated solid or groundwater, see the Wisconsin DNR, [An introduction to cleaning up contamination](#).

9.2.1 Phases of an Investigation

If there is the potential for contamination on one or more parcels to be acquired for a project, regional RE staff and the environmental coordinator must work together to determine if an

investigation is needed, the type of investigation needed, and to collaborate and coordinate on what the investigation will include.

Site assessment and remediation phases include:

Phase 1 – hazardous materials assessment. A Phase 1 investigation focuses on site history to determine if properties within the project corridor are likely to present environmental issues needing further investigation. This phase uses field observations, interviews and record searches to identify sites that have a high likelihood of contamination. See [FDM 21-35-5](#).

Phase 2 – subsurface investigation. A Phase 2 investigation is used to confirm or refute suspected presence of contamination. This phase involves collecting soil and/or water samples on sites identified in Phase 1 as likely areas of contamination. If the acquisition is a strip, the investigation will be limited to the acquisition area. A report is produced summarizing the Phase 2 investigation, which includes a chemical analysis; identifying applicable regulations; and, describing required next steps. The Phase 2 report will also identify the nature; type; and, concentration of the contaminant at the location of the borings. See [FDM 21-35-10](#).

Phase 2½ – remediation planning for construction of a highway project. The objective of a Phase 2½ assessment is to gather sufficient data to prepare a materials-handling plan for impacted soil and groundwater that may be encountered during construction. This work is not intended to remediate the entire site, only to properly manage materials encountered during construction. When necessary, if the source of the contamination is known and only if the owner of the source of contamination is unable to effect remediation in time to avoid delaying highway construction, the region may consider remediation of the area in the immediate right of way, leaving the responsible party to clean up the source. This option should be limited to situations where recontamination of the right of way can be prevented. See [FDM 21-35-12](#).

Phase 3 – defines full extent of contamination. A Phase 3 investigation defines the nature and full extent of the contamination and develops a remediation plan. The report includes a discussion of alternative remedial strategies, approximate costs, and timeframes associated with each strategy, as well as a recommendation for further action. This report becomes the basis for comparison of cost to remediate versus cost of delay to the project. It also becomes part of the basis for valuation during the appraisal process for acquisition of a contaminated site. See [FDM 21-35-15](#); also see 9.7 Appraising Contaminated Parcels below.

Phase 4 – remediation. Phase 4 remediates the contamination according to applicable rules and regulations. The nature and extent of remediation may be different depending on planned future use. This phase can be completed prior to construction or coordinate with construction activities. See [FDM 21-35-20](#).

9.3 WHEN CONTAMINATION IS SUSPECTED OR IDENTIFIED

It is critical for all WisDOT staff and consultants to immediately alert the proper contacts in the regional office if they discover or suspect that a hazardous condition exists on a parcel. Contact should be with the regional environmental coordinator and/or the hazmat materials coordinator.

9.3.1 Authority to Enter Private Lands for Environmental Testing

When the potential for contamination is identified on property to be acquired for a highway project, staff and consultants must follow the entry and operations on private land procedures as described in [FDM 9-10-5](#). This applies to any investigations of a parcel. Department policy for entry on private land is based on [Wis. Stats. §84.01\(10\)](#). The department does not have to ask for permission, but shall notify the owner/occupant that entry will occur, when it will occur, and why it will occur. It may be necessary to contact more than one person (e.g., owner of the land, renter, occupant, caretaker, and/or neighbor) to adequately provide information of the proposed project to everyone concerned or affected by the project.

WisDOT staff and representatives must contact the owner/occupant(s) before beginning any testing procedures on a property. Since enactment of the Castle Doctrine law in Wisconsin through 2011 Wis. Act 94 (see §§[895.62](#) and [939.48\(1m\)](#), Wis. Stats.), persons can use deadly force without civil or criminal liability under defined threats at residences, vehicles and places of business.

If the department's personnel or representative must re-enter private land after the initial entry, the department's personnel or representative must contact the owner/occupant again before reentering the private land.

The regional environmental coordinator or RE project manager or acquisition agent must provide the owner with the information the department is relying upon to seek access and test for contamination relating to a transportation project; further description in [FDM 9-10-5-2.2](#). Since each region has a slightly different workflow and staff resources, you will have to work through exactly who to contact and the specific processes of your region. If a property owner objects to entry upon their land, the region should weigh the consequences of not testing versus the need to take further actions to secure entry. Every effort to reach agreement with the owner should be made. If it is decided that entry to the property is necessary for testing purposes and the owner still objects, you must notify the WisDOT Office of General Counsel for assistance in obtaining access prior to entry, including potentially obtaining a special inspection warrant, following the procedure in [FDM 9-10-5.2](#).

9.3.2 Test Results Notification

Regardless of the type of investigation conducted, either the region's environmental coordinator or hazmat materials coordinator must provide a copy of all reports on the results of subsurface investigation to both the property owner and the Wisconsin Department of Natural Resources (DNR). DNR Form 4400-249 may be used to notify property owners and property occupants of the results of the investigation. A copy of the entire report for that property must be provided to the property owner. Owner follow-up is needed if data suggests that further environmental investigation or remediation is required. Either the region's environmental coordinator or hazmat materials coordinator will contact the property owner as soon as possible to share the information and to assist them in the regulatory process. If the contamination finding is new, either the environmental coordinator or hazmat materials coordinator shall advise and explain to the property owner that the DNR will likely issue a 'responsible party' letter requiring further action.

9.4 UNDERGROUND STORAGE TANKS

WisDOT's Environmental Services Section (ES), in the Bureau of Technical Services (BTS) must be notified if an underground fuel storage tank is known or suspected to exist on a parcel. Once again, it is critical for all WisDOT staff and consultants to immediately alert the proper contacts in the regional office if they discover or suspect that a hazardous condition exists on a parcel, and the point(s) of contact will be with the regional environmental coordinator and/or the hazmat materials coordinator. ES will then arrange for an environmental site assessment for each parcel. An ES consultant will remove any tanks discovered during the environmental site assessment before razing activities begin.

If tanks are discovered on the site during razing that were not removed as part of, or in the absence of an environmental assessment, the demolition contractor should immediately cease razing operations on the site and notify WisDOT BTS-ES. BTS-ES will contract with a certified contractor to remove the tanks. Home heating fuel tanks on a parcel should also be included for removal in the razing contract. Tanks must be pulled by a certified tank removal expert to comply with Wisconsin [ATCP 93](#) on Flammable, Combustible and Hazardous Liquids. All petroleum tank sludge/contents disposal must be completed through the statewide hazardous waste contract. Contact the region environmental coordinator or BTS-ES for assistance on the procedures for removal of all underground fuel storage tanks.

9.5 MOVE PAYMENTS INVOLVING HAZARDOUS MATERIALS, SUBSTANCES AND/OR WASTE DISPOSAL

Move payments can be made under the relocation assistance program when hazardous materials, substances or wastes are found on a property if those substances, materials or wastes are classified as personal property of the business, farm or residence being displaced. Examples might include containers of paints, pesticides, herbicides, oils, degreasers, solvents, batteries, etc. located on the property itself or within buildings on the site. Criteria used to determine the extent of allowable move cost payments are:

- If hazardous materials/wastes on the property being acquired were not otherwise mandated under law to be disposed of if there were no project, then relocation of those substances, materials or waste would be eligible for move cost payments for removal, transportation and disposal to the nearest licensed disposal site without regard to the 50-mile limitation.
- If the displaced business, farm or residential owner has an existing liability under state law to move the hazardous substances, materials or waste to a licensed disposal site, that displacee is generally NOT eligible for reimbursement from WisDOT.

Many counties and/or municipalities have "[clean sweep](#)" programs allowing home owners, farms and business owners to take hazardous materials/wastes to a collection site for disposal at no or minimal cost. Owners should be advised to check on these options. Owners usually must prove they live within the area where the clean sweep program is operating. The Wisconsin DNR also maintains waste disposal facility information at <http://dnr.wi.gov/topic/landfills/registry.html>. If the property owner vacates the parcel and suspected hazardous material is left on the site, WisDOT must act to immediately lock the structure. The regional relocation specialists and property managers will need to coordinate with BTS-ES and DBM's Risk Management for further direction. WisDOT's Risk Management section will be the point of contact to help determine self-insurance and/or liability issues on a case by case basis. Note: WisDOT may not use local clean sweep

sites to dispose of materials from properties we own or have acquired. We must use the mandatory statewide hazardous waste disposal contract to manage materials from properties located on property WisDOT has acquired. Contact [BTS-ES](#) for assistance.

9.6 Acquiring Contaminated Property

Acquisition of a contaminated site (or potentially contaminated site) will always take more time because of all the complexities and need for careful coordination, and it must go through an exemption review process. Unfortunately, sometimes it is the RE acquisition agent who is the first to discover a contamination or potential contamination issue. Whenever any type of contamination of a parcel is identified either on-site or in the environmental document, the regional environmental coordinator must work with the RE project manager, who will coordinate with the RE acquisition agent, relocation staff (if relocation is involved), and the RE property manager to review and consider an exemption. If the site has not already undergone a Phase 3 investigation to determine the extent of contamination and estimated cost of cleanup, the investigation must be completed prior to the initiation of the appraisal. For such cases, you must allow a minimum of three months for the investigation and remediation estimate to be completed. As addressed earlier, WisDOT will only acquire a contaminated parcel where remedial action is required, when:

1. Area of contamination cannot be avoided;
2. Area of contamination cannot be remediated by others within the proposed letting schedule; and,
3. Project cannot be deferred or project deferment would substantially exceed the cost of remediation.

If the three conditions above are met, the region will submit an exemption memo, typically from the regional RE supervisor, to the bureau director of BTS. The memo should include an overview of the project, a summary of options analyzed, and a discussion regarding why it is appropriate for this parcel to be exempted from the general policy. Attach pertinent pages of the environmental document showing alternatives analyzed, and the hazardous materials reports. Also, include copies of the plan sheets covering the area of proposed acquisition. These exemption submittals should be routed to the attention of BTS-ES (Environmental Services). BTS-ES will then convene a group called the 'WisDOT Exemption Committee.' The committee members who will review the exemptions request should include: BTS-ES (Environmental Services), BTS-RE (Real Estate) statewide acquisition facilitator, Bureau of Project Development/Division of Business Management - Risk, Safety & Facilities Management, and the Office of General Counsel (OGC).

Regions needing to submit an exemption request to the BTS-ES/Exemption Committee should draft the memo under the signature of the RE supervisor and send it at least ten months prior to the planned acquisition to allow time for review and administrator approval (three weeks), completion of the phase 3 investigation (two - three months); appraisal **and** review (two - three months); offer (three weeks); owner's appraisal (two months); and, the Jurisdictional Offer (two weeks). If the owner is committed to remediating the site, WisDOT may consider a limited remediation of only the proposed right of way needed for the highway project and may accommodate the remaining cleanup by the owner later. Part of any such approval will be a determination that recontamination can be prevented. If this is to be considered, the region shall include a discussion of how the expenditure of state funds will be accounted for in the acquisition.

If the entire site is required for the highway project, or is proposed to be purchased due to creation of an uneconomic remnant, or because recontamination of R/W cannot be avoided, or for other similar considerations, acquisition of the site in fee title is recommended. The total cost of acquisition and remediation of the site should be considered in the cost estimate for the environmental document. Costs of remediation will be borne by the project until construction is complete and the construction project ID is closed. If the remediation is not completed by the close of construction, the continued management and remediation of the site becomes the responsibility of BTS-ES. The Exemption Committee will review requests. The regional position will be represented by its coordinating representative. A recommendation by the Exemption Committee will be forwarded to the administrator of DTSD for approval. No Offering Price Report is to be approved until the Exemption Committee's recommendation has been approved by the division administrator.

9.6.1 “If” Acquiring Petroleum Contaminated Parcels Eligible for PECFA

- **Note:** This section will be the exception, rather than norm. For most acquisitions, see 9.6.2 *Petroleum Contaminated Sites NOT Eligible for PECFA* below.

Sites identified as petroleum contaminated after July 20, 2015 are NOT eligible for the Petroleum Environmental Clean-up Fund Act (PECFA), and all PECFA claims must be filed by no later than June 30, 2020.

If/when, a PECFA-eligible parcel cannot be avoided and the project cannot be deferred to allow remediation by the owner within the project period, the region may proceed to acquire the contaminated property by highway easement provided all the following have been met:

1. Site has been approved by the Department of Natural Resources as [PECFA](#) eligible and owner has met all deductibles or has furnished letters of credit to be applied to such deductibles. If the owner has filed for deferment or reduction of the deductible due to financial hardship, the DNR may hold a lien on the property. This lien must be satisfied as part of the acquisition process.
2. Owner of contaminated site has contracted with a registered PECFA consulting firm, and the firm is acting as PECFA agent for the site, or the owner has contracted with a registered PECFA consulting firm and has demonstrated financial ability to pay for the remaining remediation costs out of pocket.
3. DNR has approved a site remediation plan or has notified responsible party in writing to proceed.
4. DNR has verified that the PECFA consulting firm has filed all required reports and notices within the required periods and remains on the registered PECFA consultant list.
5. Estimated time for remediation, as approved by DNR, does not conflict with scheduled project let date.
6. Region has determined that project-related remediation costs are within an acceptable range so to not jeopardize the financial integrity of the project; and, can demonstrate range is acceptable through cost estimates upon request. This is a discussion to be had between WisDOT design staff, real estate, and construction.

Once the region has complied with all the above (1-6), they can proceed to acquire a parcel in highway easement. However, because of PECFA ownership requirements, these highway easements are NOT eligible to achieve a fee simple status until the site has received closure from DNR. An early acquisition of the underlying fee rights could render the site ineligible for PECFA.

9.6.1.2 Achieving Fee Simple Status for PECFA Sites Upon Closure

For any PECFA site acquired in easement, after it has achieved closure, and WisDOT has been notified of the closure, WisDOT should go back and acquire the remaining interests to bring it to a fee simple status. This will would require a coordinated effort between RE acquisition staff, the project manager, and the regional environmental staff. Note that any liens applied to the property by DNR to cover ineligible or deductible costs must be satisfied prior to completing the acquisition.

9.6.2 Acquiring Petroleum Contaminated Parcels NOT Eligible for PECFA

Any parcels identified after July 20, 2015, as being contaminated with petroleum, are NOT eligible for PECFA, and therefore, should follow the procedures in this section. As addressed earlier, WisDOT will only acquire a petroleum-contaminated site where remedial action is required, when the region has determined that:

1. Area of contamination cannot be avoided;
2. Area of contamination cannot be remediated by others within the proposed letting schedule; and,
3. Project cannot be deferred or project deferment would substantially exceed the cost of remediation.

Petroleum contaminated sites that cannot be avoided and are not eligible for PECFA should be acquired in fee, and the total cost of acquisition and remediation of the site should be considered in the cost estimate for the environmental document. Costs of remediation will be borne by the project until construction is complete and the construction project ID is closed. If the remediation is not completed by the close of construction, the continued management and remediation of the site becomes the responsibility of BTS-ES.

9.6.3 Contaminated Site Closure

Section NR 726.05(2)(b)4, Wis. Admin. Code, requires notification of appropriate units of government when a site closure request is being made with soil or groundwater contamination within a right of way. For WisDOT Real Estate, this notification is sent via email to Bureau of Technical Services - Environmental Services (BTS-ES) using DNR form 4400-286 section C. This information is also recorded in READS when/if WisDOT owns the property.

9.6.3.1 Closed Sites w/Continuing Obligations (a.k.a., Institutional Controls or Land Use Controls)

Contaminated sites that have been remediated may be closed by the regulatory agency; in most cases, this will be the Wisconsin Department of Natural Resources (DNR) with some residual soil or groundwater contamination still in place. These sites are closed with continuing obligations, or deed restrictions. These sites are listed in the DNR's Contaminated Lands Environmental Action Network (CLEAN) database, see <http://dnr.wi.gov/topic/Brownfields/clean.html>.

WisDOT assumes the responsibility to maintain the continuing obligations when/if we acquire a property that has them. The cost of maintaining those obligations should be incorporated into the cost estimate for the project. Any change to a property with continuing obligations or deed restrictions will require close coordination with DNR. This includes subdivision of the original parcel into two or more parcels, changes in land use or cover, building demolition, fill, or excavation. Allow a minimum of 60 days (two months) for DNR review of proposed changes. DNR approval must be received before any modifications to the property occur. Even TLE's will require coordination with DNR, make sure you allow time for the DNR review and approval in your acquisition schedule. Additional time may be required for the removal of a deed restriction.

Properties with continuing obligations should be purchased in fee, unless there is a compelling reason to acquire an easement only (e.g., TLE for grading).

The two most common continuing obligations are proper management of contaminated soil if it is excavated; and, obtaining approval for construction of water supply wells. Other property-specific obligations may include:

- Keeping a cover of pavement, soil, asphalt or an engineered cover over contaminated soil or groundwater;
- Keeping clean soil and vegetation over contaminated soil;
- Maintaining a specific use of the property, as defined in the closure letter, and notifying the state before changing that use;
- Maintaining industrial zoning for sites where industrial soil standards were applied for closure;
- Notifying the state if a structural impediment (e.g., building) that restricted the cleanup is removed, the owner may then need to conduct additional state-approved environmental work; or,
- Operating and maintaining a vapor mitigation system.

Acquisition of a portion of a property with continuing obligations requires notifying the DNR, along with a revised parcel description, and a filing fee. Contact BTS-ES for assistance with notification and filing requirements. The notification and fee can be filed by either the buyer or the seller. Ensure that the responsibility for notification is discussed and settled during the acquisition. Once project construction is complete, the responsibility for maintaining any remaining and continuing obligations becomes the responsibility of the regional property manager. As referenced above, continual and on-going coordination with the assistance of the regional environmental coordinator or hazardous materials engineer and BTS-ES is to be expected, with BTS-ES (central bureau) providing on-going monitoring.

9.7 APPRAISING CONTAMINATED PARCELS

When appraising a contaminated property, the issue of contamination will typically be confined to contamination at, or below the surface of the ground. It is recognized that buildings and other improvements located on an affected parcel may also contain hazardous substances (lead, asbestos, radon, PCB's, etc.); however, these items either occur naturally (radon), or are found in what were, at one time, commonly used products like lead based paint, many products containing asbestos and florescent lighting. These items would commonly occur in the comparable sales used to value an affected parcel, and any negative impacts of the existence of

the above materials would already be reflected in the comparable sales data, and would not require any special consideration. There may be extreme cases where the existence of hazardous substances in an affected site improvement could pose complications for the appraisal process, but those cases must be dealt with on a case by case basis and will not be addressed in this manual. Site contamination, on the other hand, is a more complex physical attribute for a subject property, requiring extensive analysis of unique valuation issues. It may even be necessary to consider contamination impacts to adjacent properties if the contamination has spread outside of the larger parcel being appraised (contamination plume). It is for this reason that this section was developed.

Under normal circumstances, the appraiser will be notified by WisDOT if a property, they have been assigned to appraise, is contaminated. If the appraiser, because of their title review, property and neighborhood research, or physical site inspections, has reason to suspect that an assigned parcel, not previously identified as contaminated, may in fact be contaminated, they must alert the RE project manager as soon as is practicable. While appraisers are not expected to be experts in the identification of contaminated property, they are expected to relay any concerns that they may have, about the condition of the property being appraised, to their client (WisDOT).

Based upon Wisconsin case law, appraisals completed for WisDOT under state eminent domain laws, require an appraisal of the “as-is” condition of contaminated property, with full consideration given to the effects of environmental contamination on the value of the property. Issues associated with: appropriate appraisal methodologies; the nature and physical impacts of contamination specific to individual parcels; and, the possible use of hypothetical conditions or extraordinary assumptions for the appraisals of the assigned contaminated properties must be discussed with the regional RE project manager and the review appraiser during the scope of work development process and agreed to by both WisDOT and the appraiser.

9.7.1 Specialized Appraisal Terms and Definitions

Specialized terms and definitions that apply to contaminated property, identified in Section 9.0 – Definitions, should be employed by the appraiser in developing their appraisal report. This next section contains additional specialized terms and definitions, associated with the appraisal of contaminated properties that should be employed by the appraiser when developing an appraisal report for contaminated property. The terms and definitions presented are based on information contained in the Uniform Standards of Professional Appraisal Practice (USPAP) - Advisory Opinion 9 (Appraisals of Contaminated Property). Modifications have been made to meet the needs of WisDOT. Any additional material from outside of USPAP is identified:

- Environmental contamination – adverse environmental conditions resulting from the release of hazardous substances (see Section 9.0 – Definitions for explanation of hazardous substance) into the air, surface water, groundwater or soil. Generally, the concentrations would exceed the regulatory limits established by appropriate federal, state, and/or local agencies.
- Environmental risks – additional or incremental risk of investing in, financing, buying and/or owning property attributable to its environmental condition. This risk is derived from the perceived uncertainties concerning the nature and extent of the contamination; estimates of future remediation costs and their timing; potential for changes in regulatory requirements; liabilities for cleanup (buyer, seller, third party); potential for off-site impacts; and other environmental risk factors, as may be relevant.

- Environmental stigma (stigma) – any diminution in a property’s value that may remain after the contamination has been eradicated or mitigated (Real Estate Valuation in Litigation 2nd Edition, published by the Appraisal Institute).
- Value as impaired – market value of the property being appraised with full consideration of the effects of its environmental condition and the presence of environmental contamination on, adjacent to, or proximate to the property. Conceptually, this could be considered the “as-is” value of contaminated property.
- Remediation cost – cost to cleanup (or remediate) a contaminated property to the appropriate regulatory standards. These costs can be for the cleanup of on-site contamination as well as mitigation of off-site impacts due to migrating contamination.
- Remediation lifecycle – a cycle consisting of three stages of cleanup of a contaminated site: before remediation or cleanup; during remediation; and after remediation. A contaminated property’s remediation lifecycle stage is an important determinant of the risk associated with environmental contamination. Environmental risk can be expected to vary with the remediation lifecycle stage of the property.
- Source, non-source, adjacent and proximate sites – source sites are the sites on which contamination is, or has been, generated. Non-source sites are sites onto which contamination, generated from a source site, has migrated, and which the property owner can be held liable for remediating under Wisconsin law. (Consistent with State vs. Mauthe, 123 Wis. 2d 288 (1985)). An adjacent site is not contaminated, but shares a common property line with a source site. Proximate sites are not contaminated and not adjacent to a source site, but are near the source site.
- Value as unimpaired – market value of a contaminated property developed under the hypothetical condition that the property is clean and has no history of contamination. The value as unimpaired establishes market value for similar properties not impacted by the environmental contamination. From these the appraiser can establish a background for capitalization rates, loan to value rates, population samples, etc. that can be used to determine the indicated change in value factors due to the impact of environmental contamination.

9.7.2 Describing Contamination in Appraisal Report

When writing an appraisal report that involves a contaminated property, special efforts should be made to describe the nature of the contamination, and its location, if it is localized. The following issues need to be researched during the appraisal process and included in the property description portion of the appraisal report:

1. Status of the property with respect to regulatory compliance requirements.
2. Remediation life-cycle stage (before, during or after cleanup) of property as of appraisal date.
3. Responsible party(s), if known.
4. Contamination constituents (petroleum hydrocarbons, chlorinated solvents, etc.).
5. Contamination conveyance (air, groundwater, soil, etc.).
6. Whether property is a source, non-source, adjacent or proximate site.
7. Cost and timing of any site remediation plans.
8. Liabilities and potential liabilities for site cleanup.
9. Potential limitations on use of property due to contamination and its remediation.
10. Potential or actual off-site impacts due to contaminant migration (for source site).

The appraiser, who is not an expert on environmental contamination, is not expected to address the above issues on their own. WisDOT will provide the required information and

remediation cost estimates to the appraiser. Normally this information will be provided before the appraisal process starts, preferably no later than at the project management conference (appraisal startup meeting). However, there are times when the existence of site contamination is not identified until after the appraisal process has started. In this situation WisDOT will be required to secure the necessary inspections and testing to determine the extent and nature of the contamination. The appraiser will not be required to secure any third-party information or reports relating to the contamination. When relying on third party environmental reports, the appraiser must identify the source of the report, and how the information within the environmental reports affected the appraisal. The appraisal report must include any remediation estimates relied upon by the appraiser and sufficient information from the third party environmental report(s) to document the amount and nature of the contamination. The appraiser's use of the remediation estimates, environmental reports and any required extraordinary assumptions, or hypothetical conditions, must be discussed with the regional RE project manager and the review appraiser as part of the appraisal scope of work development.

9.7.3 Appraisal Considerations for Contaminated Property

When appraising contaminated property, the appraiser will adhere to the appraisal policies and standards as laid out in Chapter 2 of the Real Estate Program Manual (REPM). This includes adherence to the requirement that all eminent domain appraisals prepared for WisDOT will employ the before and after appraisal method. While the appraiser must adhere to established WisDOT appraisal policies and standards, there are some additional considerations that are unique to contaminated properties.

- The appraiser must determine where in the remediation lifecycle the subject property is.
 - If the remediation has not yet begun, then all the highest and best use options presented below must be considered.
 - If the remediation is in progress, then the appraiser must determine how long it will take to complete the process, and whether there are any interim uses to which the property can be put during the remediation process, if any exist. It is likely that the 2nd, 3rd and 4th highest and best use options presented below should be considered.
 - If the remediation has been completed, then the appraiser will have to determine if the remediation resulted in a clean site or whether the remediation resulted in a remaining level of contamination that would limit potential uses or result in continuing obligations to the property owner.
- The appraiser must complete multiple highest and best use analyses of a contaminated property. Environmental contamination and its remediation to appropriate levels under applicable regulatory standards may affect the financial feasibility (an element of the highest and best use analysis) of site development or redevelopment, use of the site during remediation, use of the site after remediation, marketability of the site, and other economic and physical characteristics of a contaminated property. The appraiser must consider the possibility that site remediation and any remaining limitations on the use of the site following remediation may alter or limit its highest and best use. The highest and best use analyses of contaminated properties must consider:
 - The highest and best use of the contaminated property in its current impaired condition ("as is" contaminated condition). Often, a contaminated site can continue with the use that is in-place as of the effective date, or in some other capacity if certain conditions, established by the regulatory agency, are met.
 - The highest and best use of the contaminated property as remediated to a level of

- contamination permitted by regulation. Often, environmental regulations will allow a contaminated site to be remediated to a level less than clean, because of the difficulty or costs associated with a complete remediation. This type of remediation will typically have conditions placed upon the use of the property after remediation, or come with continuing obligations (monitoring wells, site caps, etc.) that will impact the highest and best use of the site.
- The highest and best use as remediated and clean. This assumes that the site can be fully remediated with no physical or legal limitations on its highest and best use. The only limitations on the highest and best use would result from market perception and the effects of the risk and stigma attached to the previously contaminated site. Excessive environmental risk and stigma may deter site development or redevelopment and thereby limit the highest and best use.
 - The highest and best use as clean and never contaminated. This analysis is typically used in a partial acquisition, when the area of the site contamination can be shown to be outside of the proposed acquisition. This analysis requires the use of an extraordinary assumption, that the land being acquired is clean, and a hypothetical condition that the larger parcel is not contaminated.
 - The appraiser must consider all applicable approaches to value when analyzing contaminated property. The approaches to value and appraisal methodologies, utilized by the appraiser, will be dictated by his or her highest and best use determination and the data available for the analysis. There are multiple recognized appraisal methods for valuing contaminated property. The appraiser, who is assumed to be either, competent to perform the appraisal assignment, or capable of becoming competent to perform the appraisal assignment, is responsible for determining the appropriate appraisal methodology.

9.7.4 Common Appraisal Method

This section will discuss a common appraisal method for valuing contaminated property. It is not presented as WisDOT's preferred method; however, it is recognized as a relatively straightforward methodology that, if performed and documented correctly, will provide a reasonable estimate of value for a contaminated property in its "as-is" condition. When researching comparable sales data for the appraisal method outlined below, information provided on the Wisconsin Department of Natural Resources (DNR) Bureau for Remediation and Redevelopment Tracking System (BRRTS) website will be helpful in identifying contaminated sites and the level and type of contamination. When determining the search parameters for the comparable sales, the appraiser should be willing to accept older sales in dissimilar markets that have contamination characteristics like the subject property, because adjustments for time and location will be more supportable than the variables associated with the contamination. The following research categories are intended to provide a foundation for: the determination of the highest and best use, and the valuation analysis of a contaminated subject property:

- A. An estimate of the level and nature of the contamination on the subject property. It may be necessary to recognize impacts to adjacent properties if the contamination has spread beyond the larger parcel. An estimate of the cost of remediation. The remediation estimate should cover the cost to fully remediate the subject site to a point where there are no significant restrictions on future use and no continuing obligations. Depending on the nature and source of the contamination, the estimated remediation

cost may include cleanup outside of the larger parcel being appraised. An estimate should also be obtained to partially remediate the area of contamination to an improved condition that would have increased potential for marketable uses with a lower level of risk. This estimate would be expected to recognize possible restrictions and continuing obligation costs, if any. The cost of the continuing obligation would likely be an annual cost. This annual cost should be discounted over the life of the continuing obligation (present worth of future payments). These estimates should be provided to the appraiser by WisDOT. If the estimates are used by the appraiser they should be included in the appraisal report.

- B. Identify comparable sales of property that have sold with the buyer and seller being fully aware of the existence of site contamination. The comparable properties would be for sites that have experienced no remediation. The comparable sales should exhibit physical, and contamination, characteristics that are as close as possible to what is known of the subject property. The proposed uses for the comparable sales may be indicative of a potential use for the subject property in its “as is” condition as contaminated and not remediated. Comparable sales data that falls within this category will exhibit the value impacts of the potential cost of remediation and environmental stigma.
- C. Identify comparable sales of property that have sold with the buyer and seller being fully aware of the existence of the site contamination. The comparable properties would be for sites that have been partially remediated and have limitations on use and, or continuing obligations. The comparable sales should exhibit physical, and contamination, characteristics that are as close as possible to what is known of the subject property. The proposed uses for the comparable sales may be indicative of a potential use for the subject property in its “as is” condition as partially remediated with restrictions on use and continuing obligations. Comparable sales data that falls within this category will exhibit the value impacts of the cost of partial remediation and continuing obligations, together with environmental stigma.
- D. Identify comparable sales of property that have sold after remediation, where the buyer and seller are fully aware of the history of contamination. The remediation activity on the comparable sales should have resulted in no residual contamination and no limitations on the uses to which the property could be put. The level and type of contamination found on the comparable sales sites before remediation should be consistent with that found on the subject property. Comparable sales data that falls within this category will exhibit the value impacts of environmental stigma.
- E. Some of the possible value calculations outlined below will require an adjustment for the value effects of environmental stigma. This adjustment will be unnecessary if there is an adequate number of quality comparable sales identified under the research conducted for category “D” above. However, if there is insufficient data available under category “D” then the appraiser will need to perform a matched pairs analysis to determine the adjustment for the market effects of environmental stigma. A matched pairs analysis would compare remediated sites to sites that have never been contaminated. The analysis could utilize sales data that is not like the subject property, that comes from widely different market areas and which exhibits values that would not be anticipated in the subject’s market area. Because the physical characteristics and values could

potentially differ significantly from the subject property, the identified adjustment should be stated as a percentage of the site as if clean and never contaminated.

- F. Identify comparable sales of property that have no history of contamination, but have physical characteristics that are like the subject property. Comparable sales data that falls within this category will provide information for a hypothetical condition that the subject property is unimpaired and has never been contaminated (no stigma attached).

The applicability of the following calculations will be based upon the amount and quality of the data that was obtained under the research categories described above (the value calculations are ranked with 1 being the most reliable calculation method for each property condition):

- Condition of the subject property: The subject property has experienced no remediation activity.
 1. Value Calculation: Using comparable sales from category “B” an estimate of the market value of the subject property in its “as is” condition, assuming no remediation has taken place, can be made. The value conclusion under this calculation is the most reliable of the options identified for the subject property condition currently under discussion.
 2. Value Calculation: Using comparable sales from category “C” an estimate of the market value of the subject property as if partially remediated, with a reduced level of remaining contamination and some continuing obligations, can be made. The estimated cost of a partial remediation and continuing obligations can then be obtained from category “A.” The estimated market value of the “as is” condition of the subject property would be equal to the estimated market value of the subject as if partially remediated minus the cost of the partial remediation and the discounted continued obligation. (C-A)
 3. Value Calculation: Using comparable sales from category “D” an estimate of the market value of the subject property as if remediated, can be made. The estimated cost of full remediation can then be obtained from category “A.” The estimated market value of the “as is” condition of the subject property would be equal to the estimated market value of the subject as remediated minus the cost of remediation. (D-A)
 4. Value Calculation: Using comparable sales from category “F” an estimate of the market value of the subject property, as if clean and never contaminated, can be made. The estimated cost of remediation can then be obtained from category “A.” The value impacts of the possible existence of environmental stigma can be calculated using the matched pairs analysis described in research category “E.” The estimated market value of the “as is” condition of the subject property would be equal to the estimated market value of the subject as clean and never contaminated minus the cost of remediation, minus the estimated environmental stigma. (F-A-E). The value conclusion under this calculation is the least reliable of the options identified for the subject property condition currently under discussion.
- Condition of the subject property: The subject property has experienced a partial remediation with limitations on use and, or continuing obligations placed on the site.
 1. Value Calculation: Using comparable sales from category “C” an estimate of the market value of the subject property, in its “as is” condition as partially remediated, with reduced levels of remaining contamination and some continuing obligations, can

- be made. The value conclusion under this calculation is the most reliable of the options identified for the subject property condition currently under discussion.
2. Value Calculation: Using comparable sales from category “D” an estimate of the market value of the subject property as if remediated, can be made. The estimated cost of the partial remediation and continuing obligations can then be obtained from category “A.” The estimated market value of the “as is” condition of the subject property would be equal to the estimated market value of the subject as if partially remediated minus the cost of the partial remediation and continuing obligations. (D-A)
 3. Value Calculation: Using comparable sales from category “F” an estimate of the market value of the subject property, as if clean and never contaminated, can be made. The estimated cost of the partial remediation and continuing obligations can then be obtained from category “A.” The value impacts of the possible existence of environmental stigma can be calculated using the matched pairs analysis described in research category “E.” The estimated market value of the “as is” condition of the subject property would be equal to the estimated market value of the subject as clean and never contaminated minus the cost of remediation, minus the estimated environmental stigma. (F-A-E) The value conclusion under this calculation is the least reliable of the options identified for the subject property condition currently under discussion.
- Condition of the subject property: The subject property has experienced a complete remediation of the site.
 1. Value Calculation: Using comparable sales from category “D” an estimate of the market value of the subject property in its “as is” condition as completely remediated, can be made. The value conclusion under this calculation is the most reliable of the options identified for the subject property condition currently under discussion.
 2. Value Calculation: Using comparable sales from category “F” an estimate of the market value of the subject property, as if clean and never contaminated, can be made. The value impacts of the possible existence of environmental stigma can be calculated using the matched pairs analysis described in research category “E.” The estimated market value of the “as is” condition of the subject property would be equal to the estimated market value of the subject as clean and never contaminated minus the estimated environmental stigma. (F-E) The value conclusion under this calculation is the least reliable of the options identified for the subject property condition currently under discussion.

The conditions of the subject property and the variety of value calculations can be applied to the subject property as it exists, or to test highest and best use options considered as part of the appraisal analysis.

9.7.5 Valuation of A Contaminated Site As If Unimpaired

In some assignments, WisDOT will determine the acquisition area is not affected by environmental contamination; even though the remainder of the site might still be contaminated. In these situations, the appraiser will likely use a hypothetical condition that the site is free of contamination. In these assignments, an appraiser may appraise interests in real estate known to be contaminated under the hypothetical condition that the real estate is free of contamination.

The appraiser must disclose available information about the contamination problem, explain the purpose of the hypothetical condition that the real estate is not contaminated, and state that the use of the hypothetical condition might have affected the assignment results. In other situations, the appraiser may be asked to appraise a property believed to be free of contamination or for which the environmental status is uncertain due to the lack of information or conflicting information. For these assignments, the property may be appraised under the extraordinary assumption concerning assumed facts about its environmental condition and status.

All decisions about the appraisal assignment, such as treating the acquisition area as if impaired or unimpaired, the use of hypothetical conditions or extraordinary assumptions must be discussed during the scope of work development process, and agreed to between both WisDOT and the appraiser.

9.8 LOCAL PUBLIC AGENCIES (LPA) PROJECTS AND CONNECTING HIGHWAYS

WisDOT does not acquire real property in its name on connecting highways or for LPA projects. However, WisDOT can act as an agent or an advisor to local agencies when requested by a local unit of government. Any assistance to LPAs must be thoroughly researched to ensure compliance with requirements with DNR regulations ([Chapter 292.23 and 292.24 Wis. Stats.](#) Consult with the local unit of government and the [DNR Green Team](#) on investigation requirements and funding and remediation options prior to conducting site investigations for connecting highways and local roads projects.