NR 700.03 (1w) is created to read:

NR 700.03 (1w) “Aliquot” means a subsample derived by a divisor that divides a thoroughly mixed whole sample into a number of equal parts and leaves no remainder; a subsample resulting from such a division. In analytical chemistry the term aliquot is generally used to define any representative portion of the sample.

NR 700.03 (3e) is created to read:

NR 700.03 (3e) “Cap” means a physical and chemical isolation barrier that disrupts a completed exposure pathway. A sediment cover is not a cap.

Note: Under s. 292.01 (17m), Stats., “sediment cover” means “a layer of uncontaminated sand or similar material that is deposited on top of contaminated sediment.”

Note: Under s. 292.01 (3m), Stats., “engineering control” means an “an object or action designed and implemented to contain contamination or to minimize the spread of contamination, including a cap, soil cover, or in-place stabilization, but not including a sediment cover.”

NR 700.03 (5g) is created to read:

NR 700.03 (5g) “Composite sample” means samples that, in some situations may provide a more representative sampling of heterogeneous matrices in which the concentration of the analytes of interest may vary over short periods of time or space, or both. Composite samples can be obtained by combining portions of multiple grab samples or by using specially designed automatic sampling devices. Sequential composite samples are collected by using continuous, constant sample pumping or by mixing equal water volumes collected at regular time intervals. Flow-proportional composites are collected by continuous pumping at a rate proportional to the flow, by mixing equal volumes of water collected at time intervals that are inversely proportional to the volume of flow, or by mixing volumes of water proportional to the flow collected during or at regular time intervals.

NR 700.03 (5r) is created to read:

NR 700.03 (5r) “Conceptual site model” means a representation of the environmental system and the physical, chemical, and biological processes that determine the transport of hazardous substance discharges or environmental pollution from sources to receptors. A conceptual site model generally includes information on known and potential sources, fate and transport pathways, exposure pathways, potential receptors, and impacted media.

NR 700.03 (9m) is created to read:

NR 700.03 (9m) “Data quality objectives” means qualitative and quantitative statements that clarify the purpose of a data collection effort, define the most appropriate type of information to collect, determine the most appropriate conditions from which to collect that information, and specify tolerable levels of potential decision errors.

NR 700.03 (13m) is created to read:
NR 700.03 (13m) “Discrete sample” means a single sample collected at a specific location.

NR 700.03 (59s) is created to read:

NR 700.03 (59s) “Structural impediment” means objects at a site or facility that prevent the completion of a site investigation to determine the degree and extent of contamination, the completion of a remedial action, or both.

NR 708.05 (4) (h) is amended to read:

NR 708.05(4)(h) Removing the contaminated soil or sediment, debris or the hazardous substance that was discharged or environmental pollution, in compliance with s. NR 708.11 (3) (e).

NR 708.05 (5) (b) is amended to read:

NR 708.05 (5) (b) Contaminated soils, as defined in s. NR 718.03 (5), or contaminated sediment as defined in ch. 292.01 (1s), Stats, that are excavated or dredged as part of an immediate action are exempt from the storage requirements of s. NR 718.05 and the solid waste regulatory requirements of ch. 289, Stats., and chs. NR 500 to 538, for a period of 72 hours after the initial excavation or dredging of the contaminated soils.

NR 708.09 (1) (f) is amended to read:

NR 708.09 (1) (f) Migration potential of the contamination, including soil and sediment conditions, proximity to surface water bodies, location of drains or storm sewers, depth to groundwater and the integrity of any containment area.

NR 708.09 (2) (d) is added to read:

NR 708.09 (2) (d) There is evidence contaminated sediment or surface water may be present.

NR 708.11 (2) (b) is amended to read:

NR 708.11 (2) (b) Conducting source removal, such as excavation and treatment of highly contaminated soils or sediment, to prevent or limit further movement of the contamination.

NR 708.11 (4) (b) is amended to read:

NR 708.11 (4) (b) On–site engineering control or barrier, including a landfill cover cap or groundwater barrier system, sediment cap or a vapor mitigation system other than a radon-type sub-slab depressurization system.

Note to readers: this change supersedes rule revisions presented at the June 4, 2019, Rule Development Meeting (as part of the Soil Management Proposed Rule Revisions - Second Draft).

NR 708.17 (1) (b) is added to read:

NR 708.17 (1) (b) Actions directed by the department may include removal of soil or sediment contamination, investigations beneath demolished buildings, replacement of infiltration barriers, or installation of vapor migration barriers.
NR 708.17 (2) (d) is amended to read:

NR 708.17 (2) (d) If a previously approved response action included a condition regarding a structural impediment, the responsible party or property owner shall notify and obtain approval from the department prior to removal of the building, or other structural impediment, to determine what further action may be necessary. The responsible party or property owner shall conduct those response actions directed by the department prior to affecting any structural impediment.

NR 708.17 (4) (b) (1) is amended to read:

NR 708.17 (4) (b) (1) The geographic position of the property on which a response action was taken, as well as for any other properties or riparian zones affected by the release, in accordance with the requirements of s. NR 716.15 (5) (d).

NR 708.17 (4) (b) (5) is amended to read:

NR 708.17 (4) (b) (5) A copy of the most recent deed which includes the legal description of each property, except that, in situations where a buyer has purchased property under a land contract and has not yet received a deed, a copy of the land contract which includes the legal description shall be submitted.

Note: Copies of deeds, or other documents with legal descriptions, are not required to be submitted for contaminated navigable waterways, public-street or highway rights-of-way or railroad rights-of-way. It is only in the situation where the source of the contamination is in the right-of-way, that a right-of-way will be listed on the department database as a separate property.

NR 708.17 (4) (b) (7) is amended to read:

NR 708.17 (4) (b) (7) The parcel identification number or numbers for each property, unless otherwise instructed by the department.

NR 708.17 (4) (b) (8) is amended to read:

NR 708.17 (4) (b) (8) A statement that the deeds with legal descriptions of all affected properties have been submitted, unless otherwise instructed by the department.

NR 716.03 (4) is amended to read:

NR 716.03 (4) “Investigative waste” means all solid and liquid wastes and contaminated environmental media resulting from activities conducted during a site investigation, immediate action, interim action, remedial action, or a monitoring or sampling event at a site or facility. Investigative wastes include soil or sediment from drill cuttings; drilling fluids; contaminated water from construction, purging, development and sampling of monitoring wells; and wash waters used during sampling or decontamination activities.

NR 716.07 (1) is amended to read:

NR 716.07 (1) History of the site or facility, including industrial, commercial or other land uses that may have been associated with one or more hazardous substance discharges and environmental pollution at the site or facility. The responsible party shall incorporate, where available, information from Phase I’s, Phase II’s, fire insurance maps, operational reports, title searches, aerial photographs, records of product use and waste generation, and any other sources into a chronological assessment of the
The responsible party shall identify all chemical substances that may have been used at or disposed of at the site or facility. This information shall be used in development of the site investigation sampling plan and development of the conceptual site model.

**NR 716.07 (7m) is created to read:**

NR 716.07 (7m) Potential or known impacts to the food chain from persistent, bioaccumulate, or toxic substances such as PCBs, mercury, dioxins, per-and polyfluoralkyl substances, and polybrominated diphenyl ethers. Including:

- Fish and fish consumption advisories.
- Waterfowl and waterfowl consumption advisories.
- Piscivores
- Insectivores
- Any other wildlife and organisms in the air, land or waters of the state.

**NR 716.07 (8) is amended to read:**

NR 716.07 (8) Potential for or actual impacts to any of the following:

- Species, habitat or ecosystems sensitive to the contamination of hazardous substance discharges and environmental pollution, including aquatic and benthic communities.
- Wetlands, especially those in areas of special natural resource interest as designated in s. NR 103.04.
- Outstanding resource waters and exceptional resource waters as defined in ss. NR 102.10 and 102.11.
- Sites or facilities of historical or archaeological significance.
- The benthic community.

**NR 716.07 (8m) is created to read:**

NR 716.07 (8m) The need for the department to conduct an ordinary high water mark determination to confirm the boundary between soil and sediment.

**NR 716.07 (11) is amended to read:**

NR 716.07 (11) Any other items, including climatological conditions and background water, sediment or soil quality information, that may affect the scope or conduct of the site investigation.

**NR 716.07 (12) is amended to read:**

NR 716.07 (12) The need to gather data to determine the hydraulic conductivity of materials where contaminated groundwater is found, as needed.

**NR 716.07 (13) is created to read:**

NR 716.07 (13) A map of pertinent site features, including:

- Topography and bathymetry
- Utilities
- Identification of potential or known structural impediments
- Identification of free product
- Areas of sediment deposits
(f) Locations of past or present site operations that are known or suspected to have caused or are causing contamination as evaluated in paraph (1). This includes items such as gas holders, piping or floor drains, outfalls, vents, tanks, pits, ponds, areas of drums, and lagoons.

NR 716.07 (14) is created to read:

NR 716.07 (14) Publicly available information for water levels, waves, water temperature, water quality, and wind from sources such as the department or other state agencies, United State Geological Survey, National Oceanic and Atmospheric Administration, United States Army Corps of Engineers, universities, municipalities, local airports or other sources to assist with the conceptual site model, contaminant transport model, and implementation of the remedy.

NR 716.07 (15) is created to read:

NR 716.07 (15) Geomorphological processes to identify potentially contaminated areas.

NR 716.07 (16) is created to read:

NR 716.07 (16) Bioassay studies on the benthic community to propose site-specific clean-up values, if needed.

NR 716.07 (17) is created to read:

NR 716.07 (17) Bulk sediment analysis, sediment porewater analysis, and surface water analysis, if needed.

NR 716.07 (18) is created to read:

NR 716.07 (18) Sample for waste characterization or treatability studies, if needed.

NR 716.09 (2) (c) is amended to read:

NR 716.09 (2) (c) Site or facility location map, consisting of the applicable portion of a 1:24,000-scale topographic quadrangle published by the United States geological survey with the name of the quadrangle indicated, and a site layout map to approximate scale depicting property boundaries, the layout of buildings, roads, discharge location and other relevant features of the site.

NR 716.09 (2) (dm) is created to read:

NR 716.09 (2) (dm) A conceptual site model. A conceptual site model may be a narrative, text, pictorial, computer model, or some combination of forms depending on the complexity of the site using applicable items in s. NR 716.07. The conceptual site model can and should change and be updated throughout the site investigation process. The conceptual site model shall be based on the scientific process, starting with a hypothesis that is tested and proven with site specific data.

NR 716.09 (2) (e) is amended to read:

NR 716.09 (2) (e) Basic information on the physiographical and geological setting of the site necessary to choose sampling methods and locations, including:

1. The existing topography or bathymetry or both, including prominent topographic features.
2. The surface water drainage patterns and significant hydrologic features, such as surface 
waters, springs, surface water drainage basins, divides, wetlands and whether the site lies within a 
floodplain or floodway.
3. Texture and classification of surficial soils and sediment.

NR 716.09 (2) (f) (4) is amended to read:

NR 716.09 (2) (f) (4) An itemization of the parameters for which samples will be analyzed, as 
well as the analytical methods to be used and their method associated detection limits. Verify that the 
analytical method selected has detection limits that meet the applicable environmental standards unless 
otherwise directed by the department.

NR 716.09 (2) (i) is created to read:

NR 716.09 (2) (i) A proposed form to be used for sediment core logging for the department to 
review and approve. If no core log is provided, form 4400-12 for soil logs shall be used unless otherwise 
directed.

NR 716.09 (2) (j) is created to read:

NR 716.09 (2) (j) Unless otherwise directed by the department, collect sample, topographic, and 
bathymetric information geospatially. The work plan shall indicate the methods, equipment, and 
horizontal and vertical accuracy of geospatial information.

NR 716.09 (3) (b) is amended to read:

NR 716.09 (3) (b) Responsible parties that are not instructed to proceed under par. (a) shall wait 
before initiating the field investigation, until the department has approved or conditionally approved the 
work plan, except that if the department has not reviewed the work plan within 30 days after its receipt by 
the department, the responsible parties shall proceed with the field investigation.

NR 716.11 (3) (e) is created to read:

NR 716.11 (3) (e) Evaluate whether there is a potential for an adverse effect to public health or 
welfare from consumption of plants and wildlife, including fish, waterfowl, wildlife and other species as a 
result of discharges of hazardous substances, environmental pollution or both associated with the site or 
facility, based on fish and wildlife consumption guidelines.

NR 716.11 (4) (b) is amended to read:

NR 716.11 (4) (b) The impacts of the contamination upon known and potential receptors.

NR 716.11 (5) (i) is created to read:

NR 716.11 (5) (i) The water depth, thickness and type of soft material, and the presence of gas 
and free product in sediment.

NR 716.13 (4) is amended to read:

NR 716.13 (4) All soil samples obtained during the field investigation for the purpose of defining 
the degree and extent of the contamination shall be discrete, not composite, samples, unless the
department explicitly approves in advance composite sampling for a specific site situation. Responsible parties must obtain department approval to use composite samples for sediment characterization.

NR 716.13 (4m) is created to read:

NR 716.13 (4m) Samples collected for determining characteristics of waste for off-site management purposes, or bench scale studies may be representative composite samples of different locations and depths.

NR 716.13 (5) is amended to read:

NR 716.13 (5) Maximum holding times for soils, all media and analytes shall be in accordance with the sampling method, sample storage container, and analytical methods used ch. NR 149 requirements, unless otherwise approved by the department.

NR 716.13 (6) (am) is created to read:

NR 716.13 (6) (am) For sediment sites, the department may require a quality assurance project plan, more detailed analytical reports and data validation based on the complexity of the site or facility per s. NR 716.07.

NR 716.13 (6) (cm) is created to read:

NR 716.13 (6) (cm) For sediment samples:
1. At least one replicate sample per sampling event with one replicate sample for every 10 samples or less.
2. One equipment blank for every sampling technique that utilizes equipment per event.
3. One temperature blank for every shipping container of samples that require cooling for preservation.

NR 716.13 (6m) is created to read:

NR 716.13 (6m) Responsible parties shall photograph each sediment core, during core processing, clearly showing the material type as well as the location identification, date, and orientation. In addition, any pertinent materials found within the collected sample shall be identified and photographed. Core photographs shall be documented in the site investigation report.

NR 716.13 (12) is amended to read:

NR 716.13 (12) Responsible parties shall ensure that other samples taken for analysis are collected, handled and analyzed according to the procedures specified in “SW–846: Test Methods for Evaluating Solid Waste”, “The Third Edition of SW 846, as amended by Final Updates I, II, II A, II B, III, III A, III B, and IV,” published by the U.S. EPA, the following sources, as updated, “Standard Methods for the Examination of Water and Wastewater, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods – SW-846, American Society for Testing and Materials, and the U.S. Geological Survey Agency, unless the department approves the use of an alternative procedure. The department may approve the use of an alternative procedure from one of the authoritative sources listed in ch. NR 149 Appendix III, an alternate test procedure approved by the U.S. EPA, or developed by the department, if the department determines that an appropriate procedure is neither available from “SW–846: Test Methods for Evaluating Solid Waste” nor from one of the authoritative sources listed in ch. NR 149 Appendix III, from another source.
NR 716.13 (18) is added to read:

NR 716.13 (18) Responsible parties shall validate analytical data in accordance with EPA’s most current version of National Functional Guidelines for Inorganic and Organic Methods Data Review and indicate the level of data validation performed unless otherwise directed.

NR 716.13 (19) is added to read:

NR 716.13 (19) The department may request responsible parties to provide data usability and completeness analysis of analytical data.

NR 716.15 (3) (j) is added to read:

NR 716.15 (3) (j) The responsible party shall update the conceptual site model based on the receipt of new data.

NR 716.15 (4) (g) (6) is added to read:

NR 716.15 (4) (g) (6) Responsible parties shall document sediment coring on the logs approved in the site investigation work plan.

NR 722.07 (3) is amended to read:

NR 722.07 (3) EVALUATION OF REMEDIAL ACTION OPTIONS. (a) Except as provided in par. (b), responsible parties shall use all of the criteria in sub. (4) to further evaluate appropriate remedial action options that have been identified for further evaluation under sub. (2), for each contaminated medium or migration or exposure pathway. This evaluation process shall be used to determine which remedial action option constitutes the most appropriate technology or combination of technologies to restore the environment, to the extent practicable, within a reasonable period of time and to minimize the harmful effects of the contamination to the air, land, or waters of the state, to address the exposure pathways of concern, and effectively and efficiently address minimize or eliminate the source of the contamination.

Note: The purpose of the technical and economic feasibility evaluation is to evaluate a range of remedial action options suitable for a particular site or facility to determine the practicability of implementing those options. If a particular option is not suitable for a particular site or facility, such as in situ air sparging in dense clay soils, it should not be evaluated. Emphasis should be placed on remedial action options suitable for a particular site or facility. Any remedy selected should attempt to limit secondary impacts including air and water discharges, destruction of ecosystems, and excessive use of energy.

—Note: For cases involving a discharge and migration of organic contaminants that do not readily degrade in soil or groundwater, an active remedial action that will reduce the contaminant mass and concentration will typically be necessary. Natural attenuation, covers, and barriers do not actively reduce contaminant mass and concentrations. Chlorinated compounds are the most common contaminants that fall under this provision. Some organic contaminants, such as PCBs and PAHs may not readily migrate in upland conditions but can be highly mobile in aquatic systems as part of sediment transport, depending on site characteristics.

(a) Responsible parties shall document their evaluation of a remedial option or combination of options which would use recycling or treatment technologies that destroy or detoxify contaminants, rather than transfer the contaminants to other media.
(b) A detailed evaluation based on the criteria in sub. (4) is not required in those cases where a remedial action option identified during the initial screening results in the reuse, recycling, destruction, detoxification, treatment, or any combination thereof of the hazardous substances or environmental pollution present at the site or facility and this proposed option meets all of the following requirements:

1m. Is proven to be effective in remediating the types of hazardous substances present at the site, based on experience gained at other sites with similar site characteristics and conditions;

2m. Can be implemented in a manner that will not pose a significant risk of harm to human health, safety, or welfare or the environment; and

(2s) Confirm chemicals produced in the treatment process are identified and will not cause adverse impact to human health, safety, or welfare or the environment; and

3. Is likely to result in the reduction or control, or both, of the hazardous substances present at the site to a degree and in a manner that is in compliance with the requirements of s. NR 722.09 (2) to (4).

Note: Section NR 722.07 (3) (b) is intended to provide a streamlined evaluation process for certain remedial actions that are presumed to meet the evaluation and selection criteria in ss. NR 722.07 and 722.09.

NR 722.09 (2) is amended to read:

NR 722.09 (2) Environmental laws and standards. Responsible parties shall select a remedial action or combination of remedial actions that achieve restoration of the environment to the extent practicable, minimize the harmful effects from the contamination on the air, lands and waters of the state and comply with all applicable local, state and federal public health and environmental laws and environmental standards. Environmental laws and standards include:

(a) Soils. Contaminated soil shall be restored in compliance with the requirements of ch. NR 720. Note: Chapter NR 720 provides for residual contaminant levels or performance standards. If residual contaminant levels are used instead of performance standards they must be determined in accordance with the requirements set forth in ch. NR 720. A performance standard maintains a condition that is protective of human health, safety and welfare and the environment. Use of a performance standard will involve land use restrictions, maintenance agreements, long–term monitoring or a combination of these.

(b) Groundwater. Contaminated groundwater shall be restored in accordance with all of the following requirements:

1. For substances that are listed in ch. NR 140, the groundwater restoration goal is the preventive action limit. The preventive action limits shall be achieved to the extent technically and economically feasible, pursuant to ss. NR 140.24 and 140.26, unless a PAL exemption is granted pursuant to s. NR 140.28.

2. For substances which do not have an established standard in ch. NR 140, the department may take or require the responsible parties to conduct any necessary actions, such as developing site–specific environmental standards in cooperation with the department of health services, to protect public health, safety, or welfare or environment, to prevent a significant damaging effect on groundwater or surface water quality for present or future consumptive or non–consumptive uses, including uses by animal, plant, and aquatic life.

(c) Surface water and wetlands.

1. Discharges of hazardous substances or environmental pollution to surface waters or wetlands may not result in a surface water quality standard contained in chs. NR 102 to 106 being exceeded and may not exceed effluent limitations established by the department based on “best available control technology currently available” or, where appropriate, “best available control technology economically achievable,” in accordance with ch. NR 220.

1m. Surface waters impaired due to contaminated soil or sediment shall be restored to achieve surface water quality standard contained in chs. NR 102 to 106.
DRAFT rule revisions for 9/5/2019 Rule Development Meeting

Comments on this draft may be sent to DNRRRN700input@wisconsin.gov.

2. For substances that do not have established criteria in ss. NR 102.14 and 105.05 to 105.09, discharges to surface waters or wetlands may not exceed site-specific water quality criteria established by the department pursuant to the general standards of ss. NR 102.04 (1) (d) and 103.03 (2) (d). Note: The water quality standards contained in chs. NR 102 to 106 are comprised of water quality criteria for the prevention of adverse tastes and odors in fish and drinking water (s. NR 102.14), acute and chronic toxicity to aquatic life (ss. NR 105.05 and 105.06, respectively), adverse effects to wild and domestic animals (s. NR 105.07), human threshold and cancer effects (ss. NR 105.08 and 105.09, respectively) and designated uses of the surface waters based on their classification and water quality standards and criteria for wetlands. Chapter NR 220 provides that for those point sources identified in s. NR 220.21 (1), the department shall establish effluent limitations that are achievable by the application of the “best practicable control technology currently available” or, where appropriate, the “best available control technology economically achievable”, as required in s. NR 220.21 (2).

3. At sites or facilities in, or in close proximity to, surface water bodies or wetlands, active remedial actions shall be taken to prevent or minimize, to the extent practicable, potential and actual hazardous substance discharges and environmental pollution that may attain or exceed surface water or wetland criteria established in accordance with chs. NR 102 to 106.

(c) Contaminated sediment shall be restored to protect the public interest, which includes the protection of public health, safety, and welfare and the present and prospective uses of all waters of the state for public and private water supplies, propagation of fish and other aquatic life and wild and domestic animals, domestic and recreational purposes, and agricultural, commercial, industrial, and other legitimate uses under criteria established in accordance with chs. NR 102 to 106 and 720. Sediment remaining after closure shall not have contaminant concentrations that will result in specific human health consumption advisories in fish, birds or wildlife. Sediment remaining after closure shall have been restored to be protective of human health risk based residual contaminant levels in ch. NR 720 and levels protective of the environment, or levels approved by the department.

1. A responsible party shall take the actions necessary to restore the environment to the extent practicable and shall minimize the harmful effects of the contaminated sediment;

2. For sites with contaminated sediment the responsible party shall evaluate potential ecological and human health effects by a method approved by the department.

(d) Discharges to the air. All emissions to the air shall comply with applicable requirements in ch. 285, Stats., chs. NR 400 to 499, and any other applicable federal or state environmental laws. In addition, for those sites or facilities where a discharge of volatile hazardous substances has occurred, the vapor intrusion pathway shall be evaluated to determine the likelihood of those substances entering the breathing space of a structure. Air contaminated from vapor intrusion shall be restored in accordance with the following requirements:

1. At sites or facilities where vapors have migrated from the source of contamination, active remedial actions shall be taken to limit or prevent, to the extent practicable, potential and actual hazardous substance discharges and environmental pollution that may attain or exceed vapor action levels.

2. The department may take or require the responsible parties to conduct any necessary actions, including actions to address compounds that may not have standards such as developing site-specific environmental standards in cooperation with the department of health services, to protect public health, safety, or welfare or to prevent a significant damaging effect on indoor air quality for present or future use.

(e) Hazardous and solid waste.

1. Any waste, debris or waste stream generated by the remedial action shall be managed in compliance with all applicable local, state and federal laws and regulations. Contaminated debris, at a minimum, shall be addressed to minimize the harmful effects to protect health, safety, and welfare and the environment.

2. Management of materials contaminated with polychlorinated biphenyls (PCBs) shall comply with the requirements of ch. NR 157 and TSCA, if applicable.
NR 722.11 is amended to read:

NR 722.11 Risk assessments.
(1) The responsible party may request, and the department may consider granting, approval to prepare and submit a risk assessment for the purpose of developing environmental standards only if the responsible parties demonstrate to the satisfaction of the department that:
   (a) Compliance with the applicable environmental standards listed in s. NR 722.09 (2) will not be protective of public health, safety and welfare and the environment; or
   (b) Attaining compliance with the applicable residual contaminant levels in ch. NR 720 is not practicable.
(2) If the department authorizes the use of a risk assessment to develop environmental standards, the responsible parties shall utilize standard exposure assumptions approved by the department. The department may approve, modify or disapprove of the risk assessment prepared by the responsible parties and shall provide a written explanation of the department's action to the responsible parties.
(3) When the department enters into a contract pursuant to s. 292.31, Stats., or a negotiated agreement pursuant to s. 292.11(7), the department shall determine whether or not a risk assessment should be prepared and by whom.

NR 722.13 (2) is amended to read:

NR 722.13 (2) Contents of report. The remedial action options report shall include the following:
(a) Cover letter.
   1. The department’s identification number for the site or facility.
   2. The purpose of the submittal and the desired department action or response.
   3. Month, day and year of the submittal.
(b) Executive summary. A brief narrative summarizing the contents of the report.
(c) Background information.
   1. Project title, name of the site or facility, its location, the mailing address and telephone number of the responsible parties, and the name, address and telephone number of the person who prepared the report.
   2. The regulatory status of the site or facility.
   3. A summary of the nature and extent of contamination at the site or facility, based on the data gathered during the site investigation.
   4. A summary of the geologic, hydrogeologic, and hydraulic characteristics at the site or facility, based on data gathered during the site investigation.
   5. Where applicable, a description of the determination made by the department of the location of the ordinary high water mark at the site or facility including any supporting data such as survey points and background information.
   Note: If a site investigation report required under ch. NR 716 and a remedial action options report required under this chapter are prepared as a single submittal, the site investigation information does not need to be restated in the remedial action options portion of the combined submittal.
(d) Remedial action options. A brief description of each remedial action option that has been evaluated under s. NR 722.07, including all of the following information:
   1. A physical and operational description of each remedial action option.
   2. The degree to which each evaluated remedial action option is expected to comply with the environmental laws and standards under s. NR 722.09 (2).
   3. The physical location at the site or facility where the environmental standards applicable to the site or facility and the remedial action option are to be complied with.
   4. Any local, state or federal licenses, permits or approvals that are required for each remedial action option.
5. A comparison of the expected performance of each remedial action option in relation to the technical and economic feasibility criteria in s. NR 722.07 (4).

6. A statement on whether or not treatment was considered and why a treatment option or combination of treatment options were rejected, if rejected.

   (e) Selected remedial action. Responsible parties shall document the selected remedial action in compliance with this section, except where the department is selecting the remedial action option under s. NR 722.05 (2). The remedial action options report shall identify the selected remedial action and shall include:

   1. A brief summary of the rationale for choosing the remedial action, based on the evaluation required under s. NR 722.07.
   2. A proposed schedule for implementing the selected remedial action option.
   3. An estimate of the approximate total cost of implementing the selected remedial action option, including the costs listed in s. NR 722.07 (4) (b).
   4. An estimate of the time frame needed for the selected remedial action option to comply with the applicable federal or state environmental laws and standards, whichever are more stringent.
   5. A description of how the performance of the selected remedial action option will be measured.
   6. A description of how treatment residuals generated in connection with the selected remedial action option will be managed on-site and, if applicable, off-site.
   7. A description of how the criteria in s. NR 722.09 (2m) regarding sustainable remedial action were addressed.
   8. A description of the continuing obligations as required for the selected remedy.
   9. A description of the actions necessary to restore the environment to the extent practicable and minimize the harmful effects from the discharge to the air, lands or waters of this state.

   (f) A description of the financial assurance for the selected remedy per ch. NR 756.

NR 724.09 is amended to read:

NR 724.09  Design report. Unless otherwise directed by the department, responsible parties shall submit to the department a design report for all remedial actions and those interim actions specified in s. NR 724.02 (1), containing all of the following information:

   (1) The information required in s. NR 724.05 (2) (e).
   (2) A brief description of the site or facility.
   (3) A complete and detailed description of the remedial or interim action being designed.
   (4) All engineering criteria, concepts, assumptions and calculations used in preparing the design, including adequate justification for their use.
   (5) Any treatability study information, pilot test results, aquifer pumping test results, dewatering tests, or other test results utilized in the design, unless this information was previously submitted to the department.

   Note: Treatability studies should be conducted as early in the response process as possible.
   (6) A listing of all local, state and federal permits, licenses and approvals specific to each media and required to construct and implement the remedial or interim action.
   (7) A brief description of the public health and environmental laws and standards applicable to the contamination and the interim or remedial action being implemented, including the physical location where the environmental standards shall be complied with for each medium of concern.
   (8) A preliminary discussion of the types of, frequency of, locations of, and schedule for monitoring of the remedial or interim action, including confirmation sampling. This discussion shall address any water, sediment, soil, soil gas, air, vapor, or other monitoring required for each component of the remedial or interim action.
   (9) A preliminary discussion of planned operation and maintenance provisions.

   (9m) An operation and maintenance plan prepared in accordance with s. NR 724.13 (2) shall satisfy the requirements of s. NR 724.09 (8) and (9), if submitted with the design report. In this case, the
operation and maintenance plan should provide a complete, rather than a preliminary, discussion of the topics described in s. NR 724.09 (8) and (9).

Note: An operation and maintenance plan prepared in accordance with s. NR 724.13 (2) will satisfy the requirements of s. NR 724.09 (8) and (9), if submitted with the design report. In this case, the operation and maintenance plan should provide a complete, rather than a preliminary, discussion of the topics described in s. NR 724.09 (8) and (9).

(10) A proposed schedule for implementation of the remedial or interim action, which identifies timing for initiation and completion of all tasks. The proposed dates for completion of the remedial or interim action and major milestones shall be specified. The schedule shall include deadlines for all reports, plans and submittals required by the department.

(11) Discussion of any other relevant technical factors.

(12) Discussion of continuing obligations.

(13) Discussion of financial assurance required.

NR 724.13 (1) (b) is amended to read:

NR 724.13 (1) (b) Responsible parties shall operate and maintain any caps, cover systems, liners, physical hydraulic containment systems, leachate collection systems, and gas collection, extraction, and management systems at sites or facilities for which they are responsible until no longer required by the department.

NR 724.13 (2) is amended to read:

NR 724.13 (2) OPERATION AND MAINTENANCE PLAN. Unless otherwise directed by the department, responsible parties shall submit to the department an operation and maintenance plan when on-site or off-site maintenance activities are necessary to implement, monitor or ensure the effectiveness of a remedial or interim action. The plan shall outline all operation, monitoring, and maintenance activities, from design through case closure under ch. NR 726 or through post-closure under ch. NR 727, through the life of the remedy, as appropriate, including all of the following information:

(a) The information specified under s. NR 724.05 (2) (e).

(b) A description of normal operation and maintenance, including a schedule showing the frequency of each operation and maintenance task.

(c) A contingency plan for any anticipated or potential operation and maintenance problems, including a description of techniques or activities to be conducted by the responsible parties to resolve operation and maintenance problems.

(d) A description of routine monitoring and analysis, including:

1. Long-term monitoring required under s. NR 724.17;

2. Laboratory or field tests, test methods and sampling techniques; and

3. A schedule of monitoring frequency and dates.

(e) A description of any site-specific or facility-specific record-keeping and reporting requirements to document operation and maintenance activities, including:

1. Mechanisms for reporting system failures, discharges of hazardous substances, environmental pollution and other emergencies; and

2. Reports to be submitted to the department, including the results of system and environmental monitoring and the results of the monitoring well inspections meeting the requirements of s. NR 716.13 (14).

(f) A location map that includes the locations and extent of features that need to be maintained, as well as the extent of contamination.

(g) Final construction specifications on any engineering control feature.

Note: Engineering controls may include a cap, soil cover, barrier, or vapor mitigation system. A sediment cover is not an engineering control. See s. 292.01(3m), Stats.
(h) A list of prohibited activities.
(i) A contact for questions on specific actions and the inspection log.
(j) A statement of where more site-specific information may be found.

Note: More site-specific information may be found in the department's files.

(k) For vapor mitigation systems; a diagram and photographs showing piping, venting, fans and manometer locations, vent height and location, a description of how to verify that the vapor mitigation system is operating properly, identification of prohibited activities to ensure the continued effectiveness of the vapor mitigation system, and direction to notify the department before any action is taken which would disturb operation of the vapor mitigation system.

(L) Air emission reporting and permitting, as applicable.
(m) Monthly manometer checks.
(n) Annual inspection of system parts.
(o) For sediment caps; the department may require:
   (1) Measures to identify the presence, integrity, and efficacy of the cap that may include bathymetry, coring, and poling and other methods approved by the Department.
   (2) Physical and chemical evaluation of the materials above, below, and of the cap itself including bulk chemistry, sediment porewater, and physical parameters such as grain size, density, specific gravity, and water content.
   (3) Event-based monitoring for rain and scour events from USGS or other gauge data and hydraulic events including but not limited to a pre-determined flood event.
   (4) Period monitoring at planned intervals.

NR 724.17 (1) is amended to read:

   NR 724.17 (1) GENERAL. Responsible parties shall conduct all necessary and appropriate long-term monitoring at a site or facility in accordance with all of the requirements of this section and any other applicable public health and environmental laws.

NR 724.17 (3m) (d) is created to read:

   NR 724.17 (3m) (d) For sediment caps; the department may require every 5 years an inspection of the cap and a maintenance report submitted with a fee per NR 749 for review and approval to the department which includes at a minimum the following:
   (1) Cap presence, efficacy, and integrity analysis.
   (2) The identification for the need for repairs.
   (3) Cap settlement analysis including overall settlement and differential settlement.
   (4) An evaluation of financial assurance and compliance with NR 756.
   (5) Conclusions of the five-year review should include an identification of issues, recommendations and follow-up actions, and a determination of whether the remedy is protective of human health and the environment.

NR 726.05 (8m) is created to read:

   NR 726.05 (8m) Criteria for closure for sites or facilities with sediment contamination. A responsible party may not submit a request for case closure for a site or facility until the following criteria have been met:
   (a) The sediment pathway has been investigated in accordance with ch. NR 716;
   (b) Sediment contamination no longer exceeds ecological and human health risks as specified in ch. NR 722;
   (c) A remedial action has been conducted to restore the environment to the extent practicable and minimize the harmful effects from the discharge to the air, lands or waters of this state.
(d) All local, state and federal laws and standards have been complied with; and
(e) Financial assurance, where required under ch. NR 756, has been obtained and maintained in accordance with requirements.

NR 726.07 (1) is amended to read:

NR 726.07 (1) All sites or facilities meeting any of the criteria in s. NR 725.05 (2) or 726.13 (1) (c), upon approval of the closure request under ch. NR 726, shall be entered onto the department database. All properties within or partially within the contaminated site or facility boundaries, including all public street and highway rights–of–way, and railroad rights–of–way and lake or river beds, shall be included.

NR 726.09 (2) (bm) is created to read:

NR 726.09 (2) (bm) A description of the interim and remedial actions taken at the site or facility. For sites or facilities where residual sediment contamination attains or exceeds ecological and human health risks as specified in ch. NR 722 at the time that case closure is requested, include a demonstration that the remedial action taken, and any interim action that was taken that constituted the final response action for sediment contamination, satisfies the requirements of ch. NR 722 and to assure attainment and maintenance of surface water quality standards as established in accordance with s. 281.15 (1), Stats., and as set forth in chs. 102 through 106 or as otherwise directed by the Department.

NR 726.09 (2) (d) is amended to read:

NR 726.09 (2) (d) For sites or facilities where soil excavation, sediment dredging, or active soil remediation occurred:

1. A table of soil analytical results with collection dates identified. Soil analytical Analytical data tables shall clearly indicate depth of sample, soil/sediment type and whether the sample represents pre-remedial or post-remedial conditions. At sites or facilities where soil excavation or sediment dredging occurred, the soil analytical data tables shall indicate whether the soil data point represents soil material that was removed or soil that remains in place.
2. A map that shows the locations of all soil samples collected.

NR 726.11 (2) is amended to read:

NR 726.11 (2) Maintenance plans. Responsible parties or other persons requesting closure shall submit a copy of a maintenance plan for any condition listed in s. NR 725.05 (2) (d) to (mL) or 726.13 (1) (c), as applicable, or as otherwise required by the department. The maintenance plan shall include the following information:
(a) A location map which shows the location and extent of the structure or feature to be maintained, in relation to other structures or features on the site. The map shall also include the extent and type of residual contamination, and include property boundaries where available.
(b) A brief description of the type, depth and location of residual contamination.
(c) A description of the maintenance actions required for maximizing effectiveness of the engineered control, feature, or other action for which maintenance is required.
(d) An inspection log, to be maintained on site, or at a location specified in the maintenance plan or approval letter.
(e) A contact name, address, and phone number of the individual or facility who will be conducting the maintenance.

Note: The closure approval letter will specify whether the inspection log is to be submitted to the department and the frequency of submittal, or simply maintained on site or at the location identified in the
maintenance plan. The inspection log is reviewed by the department during audits conducted of sites with continuing obligations.

**NR 726.11 (4) is amended to read:**

NR 726.11 (4) Deed and parcel information. Responsible parties or other persons requesting closure shall submit all of the following items, for each property within or partially within the contaminated site boundaries other than public street or highway rights-of-way, or railroad rights-of-way, or river or lake beds:

(a) A copy of the most recent deed which includes the legal description of each property, except that, in situations where a buyer has purchased property under a land contract and has not yet received a deed, a copy of the land contract which includes the legal description shall be submitted or riparian owners where sediment contamination exists.

Note: Copies of deeds, or other documents with legal descriptions, are not required to be submitted for contaminated public street or highway rights-of-way, or railroad rights-of-way, or river or lake beds. Information on residual groundwater or soil contamination that has migrated onto a right-of-way will be found in the documents that are submitted as part of the case closure request for the source property. It is only in the situation where the source of the contamination is in the right-of-way, that a right-of-way will be listed on the department database as a separate property. In those situations, the maps that are required to be submitted, as an attachment to the case closure request for the site, will show where contaminated groundwater or soil samples were collected and will provide points of reference for locating residual contamination in the right-of-way.

(b) A copy of the certified survey map or the relevant portion of the recorded plat map for those properties where the legal description in the most recent deed or land contract refers to a certified survey map or a recorded plat map. In cases where the certified survey map or recorded plat map are not legible or are unavailable, a copy of a parcel map from a county land information office may be substituted. A copy of a parcel map from a county land information office shall be legible, and the parcels identified in the legal description shall be clearly identified and labeled with the applicable parcel identification number.

(c) A statement signed by the responsible party or other person requesting closure affirming that he or she believes that legal descriptions for all of the properties within or partially within the contaminated site’s or facility’s boundaries where inclusion on a department database is required under s. NR 726.07, at the time that case closure is requested, other than public street or highway rights-of-way, or railroad rights-of-way, or lake or river beds have been submitted to the agency as part of a department database attachment to the case closure request.

(d) A list of addresses of all properties affected by residual contamination or a continuing obligation.

Note: There is a section in the closure request form on which this information is to be entered.

(e) The parcel identification number for each property unless otherwise instructed by the department.

(f) Geographic position data for each property in compliance with the requirements of s. NR 716.15 (5) (d), unless the agency has directed that the responsible party or other person requesting closure does not need to provide geographic position data for a specific site.

**NR 726.11 (5) (b) is amended to read:**

NR 726.11 (5) (b) A detailed site map of all contaminated properties within the contaminated site boundaries, showing buildings, roads, property boundaries, contaminant sources, utility lines, monitoring wells, structural impediments, engineering controls and potable wells. This map shall also show the location of all contaminated public street and highway rights-of-way, railroad rights-of-way, and river
or lake beds in relation to the source property and in relation to the boundaries of contamination exceeding applicable standards.

NR 726.11 (5) (e) is amended to read:

NR 726.11 (5) (e) For sites or facilities where samples were collected other than soil or groundwater, include a map showing the sampling locations and results, with type of sample and collection date identified, or additional information required by the department.

NR 726.11 (6) (c) is amended to read:

NR 726.11 (6) (c) Other. For sites or facilities where samples other than soil or groundwater were collected, include a table specifying the sample type, sample number or location, sample results, and collection dates, or additional information required by the department.

NR 726.15 (1) (b) is amended to read:

NR 726.15 (1) (b) A requirement that the property owner shall comply with real estate disclosure laws and inform any purchaser of the property about the continuing obligations identified in the closure letter that apply to the property or riparian zone. The closure letter may also require the property owner to notify affected occupants of the need for specific continuing obligations.

Note: For information on Wisconsin real estate disclosure laws please see ch. 709, Stats.

NR 726.15 (1) (d) is amended to read:

NR 726.15 (1) (d) For conditions of closure that require maintenance of a continuing obligation, a requirement that the property owner operate and maintain the engineering control, and other continuing obligations, including the applicable system, cover or containment system in accordance with the operation and maintenance plan developed under ch. NR 724, in all cases except for sediment. In the case of sediment, the responsible party is required to operate and maintain the engineering control and other continuing obligations, including the applicable system or containment system in accordance with the operation and maintenance plan developed under ch. NR 724. The closure letter shall also include conditions regarding inspections, documentation, availability, and submittal of an inspection log by the property owner or sediment responsible party, at a frequency determined by the agency.

NR 726.15 (2) (bm) is created to read:

NR 726.15 (2) (bm) Residual sediment contamination. If there is residual sediment contamination at the time of case closure, the final closure letter shall include a description of the extent of sediment contamination, and shall state that any sediment that is excavated or dredged in the future from an area that had residual sediment contamination at the time of case closure shall be sampled, analyzed, handled, and disposed of or managed in compliance with applicable state and federal laws.

NR 726.15 (2) (em) is created to read:

NR 726.15 (2) (em) Structure or engineering control for prevention of direct contact with sediment. For sites or facilities where a structure or an engineering control is required to be maintained in order to prevent direct contact with contaminated sediment that attains or exceeds ecological and human health risks as specified in ch. NR 722, the closure letter shall include conditions which require the responsible party to ensure that the structure or engineering control will be repaired and maintained until it is no longer needed. The closure letter shall include a description of the residual contamination and the
location of the structure or engineering control and shall restrict the use of the lake or riverbed where the structure or engineering control is located to ensure that the structure or engineering control will function as intended, to prevent direct contact and other exposures, as required by the applicable performance standard. The closure letter shall also require the responsible party to maintain and repair or shall require the responsible party or property owner to notify the agency prior to disturbing the structure or engineered control.

NR 726.15 (2) (f) is amended to read:

NR 726.15 (2) (f) Structural impediment. For sites or facilities where a building or other structural impediment at a site or facility has prevented the completion of an investigation to determine the degree and extent of residual contamination, or the completion of a remedial action, or both, the closure letter shall include a description of the general location of the residual contamination and shall require the property owner or other responsible party to notify the agency and then and receive approval from the department prior to taking any actions that may impact the structural impediment or engineering control. The department may require the property owner or responsible party to conduct an investigation of the degree and extent of contamination at such time that the removal of structural impediments makes the formerly inaccessible contamination accessible, conduct a remedial action or both.

NR 726.15(2)(m) is amended to read:

NR 726.15(2)(m) Site-specific conditions. For sites or facilities where closure is requested, and where the agency determines that there are site-specific circumstances that warrant site-specific closure conditions, the closure letter shall specify the exposure assumptions, use or occupancy restrictions, and necessary maintenance and notification of the agency if conditions change such that the exposure assumptions used no longer apply to the site, facility or property. Site-specific circumstances may include but are not limited to situations where contamination remains in media other than soil, groundwater, sediment or vapors; or exposure and migration pathways not otherwise addressed make a continuing obligation necessary to adequately protect human health, safety, or welfare or the environment. If there is contamination remaining in media other than soil, groundwater, or vapor, the final closure letter shall also state that any sediments, contaminated soils, contaminated sediment or other solids, solid waste excavated in the future from an area that had residual contamination at the time of closure shall be sampled, analyzed, handled, and disposed of in compliance with applicable state and federal laws.

NR 727.05 (1) is amended to read:

NR 727.05 (1) A party or person who owns or occupies a property where a continuing obligation has been imposed sites under either s. NR 708.17 or 722.15 or ch. NR 726 for all media except sediment shall:

(a) Comply with the requirements imposed by the agency, without regard to when the person obtained or occupied the property. This may include any continuing obligation necessary to ensure that conditions at the property, site or facility remain protective of public health, safety, and welfare and the environment.

Note: Ch. 292, Stats., allows for legally enforceable agreements (private contracts) between parties to address the continuing obligations imposed by an agency. Since the agency is not a party to these agreements, the property owner remains responsible for compliance with a continuing obligation if an issue arises.

NR 727.05 (5) is created to read:
NR 727.05 (5) Where continuing obligations are required for sediment, the property owner or occupant shall avoid all of the following:
   (a) Interference with response actions taken.
   (b) Actions that may make the contamination worse or that would cause or worsen the discharge of a hazardous substance to the environment.

NR 727.05 (6) is created to read:

NR 727.05 (6) A party responsible for sediment contamination where a continuing obligation has been imposed under either s. NR 708.17 or 722.15 or ch. NR 726 shall:
   (a) Comply with the requirements imposed by the agency. This may include any continuing obligation necessary to ensure that conditions at the property, site or facility remain protective of public health, safety, and welfare and the environment.
   (b) Perform the following actions in compliance with the conditions specified by the agency, as applicable:
      1. Operate and maintain the response required.
      2. Maintain an inspection log and keep it on the premises or at the location specified in the maintenance plan until the continuing obligation has been satisfied or removed.
      3. Submit the inspection log electronically, on a form provided by the department, to the agency at the frequency required.
      4. Conduct long-term monitoring as approved in the maintenance plan.
      (c) Allow reasonable access to the agency for inspection of any required continuing obligations.
      (d) Manage any residual contamination in accordance with applicable state and federal laws.
      (e) Maintain any financial assurance required under ch. NR 756.

NR 727.09 (6) is amended to read:

NR 727.09 (6) DEED NOTICES. (a) Deed notices that are required for modification or removal of a site or facility or property from the department database, or for another agency decision, shall be drafted in compliance with all of the following requirements:
   1. The document shall be drafted as an affidavit in the format required by s. 59.43 (2m), Stats.
   2. The property's legal description shall be typed onto the form or a copy of the legal description shall be attached and incorporated by reference.
   3. The document shall be signed by the property owner or owners, and their signatures shall be notarized.
   (b) If a deed notice is required under this section, responsible parties shall record the deed notice within 90 days after the agency specifies that a deed notice is required.

NR 750.09 (6) is created to read:

NR 750.09 (6) For properties where the voluntary party is seeking an exemption from liability for voluntary party remediation under s. 292.15 (2) (af), Stats. when contaminated sediment exists on a property from a release of a hazardous substance on or originating from a property, the insurance requirements in ch. NR 758, have been satisfied.

Plain language explanation/analysis:

A plain language explanation of the rule changes above is included in a white paper presented at the May 7, 2019, Rule Development Meeting.
Comparable state or federal rules or policies:

Comparable state and federal policies are discussed in a white paper presented at the May 7, 2019, Rule Development Meeting.

Economic impact comments:

Potential economic impacts of the rule changes above are included in a white paper presented at the May 7, 2019, Rule Development Meeting.