



**New Jersey Department of Environmental Protection
Site Remediation Program**

GROUND WATER REMEDIAL ACTION PERMIT GUIDANCE

This guidance is developed to assist the Licensed Site Remediation Professional (LSRP) and permittee(s) in determining when and who is required to obtain a Ground Water Remedial Action Permit and to assist in navigating the Ground Water Remedial Action Permit process. This guidance is not intended to supersede any rule or regulation.

I. When to apply for a Ground Water Remedial Action Permit

A Ground Water Remedial Action Permit is required whenever ground water contamination exceeding the Ground Water Remediation Standards, N.J.A.C. 7:26D, remains after the remedial action has been demonstrated as protective. All Ground Water Remedial Action Permits will include a Classification Exception Area (CEA). A Ground Water Remedial Action Permit is not required for the establishment of a CEA during the remedial investigation phase. Establishing a CEA at the remedial investigation phase can be accomplished by submitting of a CEA/Well Restriction Area (WRA) Fact Sheet Form with the Remedial Investigation Report for the site.

All ground water contamination must be horizontally and vertically delineated to the Ground Water Remediation Standards pursuant to N.J.A.C. 7:26E-4.3(a)4. Be advised that “modeling” of the ground water plume is not acceptable at the conclusion of the remedial action; as indicated in Section VI of the NJDEP’s June 2013 policy statement. Delineation must be established through collection of actual ground water samples.

All required remedial action permits must be issued by the New Jersey Department of Environmental Protection (Department) prior to the LSRP issuing the Response Action Outcome (RAO). An LSRP is required to be retained for the entire duration of the permit by the person designated as having “Primary Responsibility for Permit Compliance”.

The Ground Water Remedial Action Permit can be applied for once a ground water remedial action has been implemented and determined to be protective as follows:

1. Ground Water Remedial Action Permit for Monitored Natural Attenuation (MNA):

- a. At the completion of active remediation, a minimum of eight (8) rounds of ground water samples should be collected to demonstrate a decreasing trend of contaminant concentrations. Of these 8 rounds, four consecutive quarterly ground water monitoring events are necessary to evaluate spatial and temporal distribution.
- b. All soil contamination in the unsaturated zone has been remediated to the applicable numeric Impact to Ground Water Soil Remediation Standard for all area(s) of concern (AOCs) associated with the CEA.
- c. All free and/or residual product in the unsaturated and saturated zones, as determined pursuant to N.J.A.C. 7:26E-5.1(e), has been treated or removed for all AOCs associated with the CEA.
- d. The ground water plume is **not** impacting the sentinel well(s).
- e. Financial Assurance (FA) has been established for the operation and maintenance of any engineering control necessary, including vapor intrusion mitigation system(s) or Point of Entry Treatment (POET) water system(s), as applicable, for the period that the control(s) will be operating. The FA must be established for the duration the engineering control will be in place. If it is determined that the engineering control will be required in perpetuity, then this equates to a 30-year period that FA will be required.
- f. The ground water remedial action is demonstrated to be protective of public health and safety and of the environment. This includes an evaluation of all potential receptors as required by the Technical Requirements for Site Remediation (TRSR), N.J.A.C. 7:26E.

2. Ground Water Remedial Action Permit for Active Systems:

- a. The active ground water treatment system is effectively operating and functioning as designed. A minimum of four (4) consecutive quarterly rounds of ground water samples should be collected to demonstrate this.
- b. All soil contamination in the unsaturated zone has been remediated to the applicable numeric Impact to Ground Water Soil Remediation Standard for all AOCs associated with the CEA.
- c. All free and/or residual product in the unsaturated and saturated zones, as determined pursuant to N.J.A.C. 7:26E-5.1(e), is being or has been treated or removed for all AOCs associated with this CEA.
- d. The ground water plume is **not** migrating horizontally or vertically into an uncontaminated aquifer zone adjacent to or below the contaminant plume.
- e. The ground water plume is contained and **not** impacting the sentinel well(s).
- f. FA has been established for the operation and maintenance of any engineering control necessary, including vapor intrusion mitigation system(s) or POET water system(s), as applicable, for the period that the control(s) will be operating. The FA must be established for the duration the engineering control will be in place. If it is determined that the engineering control will be required in perpetuity, then this equates to a 30-year period that FA will be required.
- g. The ground water remedial action is demonstrated to be protective of public health and safety and of the environment. This includes an evaluation of all potential receptors as required by the TRSR, N.J.A.C. 7:26E.

II. **Who has the obligation to be a Permittee?**

N.J.A.C. 7:26C-2.2 and 7.4 identifies those persons who must comply with a Remedial Action Permit issued by the Department. The following persons are required by statute to become Permittees should a Remedial Action Permit be required:

1. Each owner and operator of an underground storage tank facility – who is liable for the remediation pursuant to the Underground Storage of Hazardous Substances Act, N.J.S.A. 58:10A-21 et seq.
2. Each owner and operator of an industrial establishment who is liable for the remediation pursuant to the Industrial Site Remediation Act, N.J.S.A. 13:1K-6 et seq.
3. Any person in any way responsible, pursuant to the Spill Compensation and Control Act, N.J.S.A. 58:10-23.11 et seq.
4. Any person who is remediating a site.
5. Persons due to their position as owners, operators, or tenants of the property that is being, or has been remediated, including the following:
 - a. Each owner of the property, where the discharge occurred, at the time of implementation of the remedial action that includes an engineering or institutional control or operation and maintenance requirements for the remedial action; and
 - b. Each subsequent owner, operator and tenant of the property of the discharge during that person's ownership or operation.

If there is more than one person responsible for compliance with a Remedial Action Permit pursuant to above, each such person, as a co-permittee, is jointly and severally liable for:

- ✓ Compliance with the conditions of a Remedial Action Permit pursuant to N.J.A.C. 7:26C-7.7 and 7.9.
- ✓ Payments of all Remedial Action Permit fees pursuant to N.J.A.C. 7:26C-4.
- ✓ Payment of penalties for violations of a Remedial Action Permit pursuant to N.J.A.C. 7:26C-9.
- ✓ Maintenance of FA for engineering controls pursuant to N.J.A.C. 7:26C-7.10.

Note: Once the Ground Water Remedial Action Permit has been issued, the “Person Responsible for Conducting the Remediation” that is identified on the permit cannot be removed since the remediation has already been completed by that responsible party. If the contact information (contact name, phone number, and email address) for the Person Responsible for Conducting the Remediation needs to be updated, use the “Remedial Action Permit Transfer/Change of Property Ownership Application and Contact Information Changes” form (available at www.nj.gov/dep/srp/srra/forms/). By submitting a Ground Water Remedial Action Permit Application for a modification, Additional Persons Responsible for Conducting the Remediation may be added to a Remedial Action Permit at any time by completing Addendum A of the application.

III. Initial Ground Water Remedial Action Permit:

In order to apply for an Initial Ground Water Remedial Action Permit, submit the following required items:

1. A completed Remedial Action Permit Application Form for Ground Water, available at www.nj.gov/dep/srp/srra/forms/. (N.J.A.C. 7:26C-7.5(c)1 and (d)1).
2. The applicable Ground Water Remedial Action Permit Application fee. (N.J.A.C. 7:26C-7.5(c)7 and (d)8).
3. A copy of the Remedial Action Report (RAR) that either the Department or LSRP has approved, which demonstrates the effectiveness of the ground water remedial action to be monitored under the Ground Water Remedial Action Permit. Submission of the RAR is now required through the online service (www.nj.gov/dep/online/) and should be submitted prior to submitting the GW RAP Application. (N.J.A.C. 7:26C-7.5(c)3i and (d)4i).
 - a. For MNA Ground Water Remedial Action Permits, a minimum of eight (8) rounds of ground water samples should be collected after the last active remediation at the site to demonstrate a decreasing trend of contaminant concentrations. Of these 8 rounds, four consecutive quarterly ground water monitoring events are necessary to evaluate spatial and temporal distribution.
 - b. For Active System Ground Water Remedial Action Permits, one year of quarterly ground water sampling should be collected during active remediation to demonstrate that the active system is effectively operating and functioning as designed.
 - c. The RAR shall meet the requirements of N.J.A.C. 7:26E-5.7(b), including a description of each AOC at the site, a summary table of all historic ground water data collected for the site, a summary table of the construction details for all monitoring wells at the site, a site map with all monitoring well locations on it, a discussion of vertical/horizontal delineation of the ground water contamination at the site, and a detailed discussion of how receptors were addressed (i.e., potable and irrigation wells, Tier 1 WHPA, vapor intrusion, ecological receptors).
4. A copy of each No Further Action (NFA) letter the Department issued for ground water at the site (if applicable). (N.J.A.C. 7:26C-7.5(c)3ii and (d)4ii)
5. A completed CEA/WRA Fact Sheet Form, available at www.nj.gov/dep/srp/srra/forms/. (N.J.A.C. 7:26C-7.5(c)2 and (d)2)
6. A Ground Water Monitoring Plan (GWMP) and Schedule:
 - a. MNA Ground Water Remedial Action Permits: A GWMP and schedule designed to monitor the characteristics and movement of contaminated ground water, to calibrate the model used to estimate the eventual extent of contaminated ground water, and to assess the effectiveness of the ground water remedy, including a clean downgradient sentinel well, and any other additional wells necessary to document natural attenuation processes. (N.J.A.C. 7:26C-7.5(c)4)

The LSRP should use Department guidance (i.e., MNA Guidance document) to determine what frequency, wells, sampling parameters, and receptors should be monitored. Sampling frequency should be more frequent when receptors are in the vicinity of the CEA. All contaminants of concern

should be sampled for in the sentinel well(s). In addition, the degradation products of the contaminants of concern should be included as sampling parameters in the GWMP.

The monitoring frequency outlined below has been designed to evaluate the continued viability of MNA as a protective remedy. This recommended GWMP consists of more frequent sampling during the early stages to confirm predicted contaminant degradation rates, and a reduction to less frequent sampling during later stages if degradation proceeds as predicted.

Recommended Monitoring Well Sampling Frequency

Situation	Performance Well Sampling Frequency	Sentinel Well Sampling Frequency
Permit issued	Annual years 1-4 *	½ travel time to nearest receptor or annually, whichever is more frequent
After 4 years	Biennial years 5-8 *	½ travel time to nearest receptor or biennially, whichever is more frequent
After 8 years	<p>BTEX: Every 8 years for the remainder of the permit.</p> <p>Contaminants other than BTEX greater than 10 times GWQS: every 4 years</p> <p>Contaminants other than BTEX less than 10 times GWQS: every 8 years for remainder of the permit</p>	½ travel time to nearest receptor or the same frequency as the performance wells, whichever is more frequent

*** Progression through this sampling schedule is appropriate only if contaminant degradation is occurring as predicted during each monitoring event, and the remedy remains protective of receptors. If contaminant degradation is not occurring as predicted, the applicability of the MNA remedy must be reevaluated in accordance with the MNA guidance.**

- b. Active System Ground Water Remedial Action Permits: A GWMP and schedule designed to evaluate the particular active ground water remedial action in order to:
 - i. Optimize the system's performance as the remediation progresses; and
 - ii. Determine whether:
 - (1) The plume of contaminated ground water is migrating horizontally or vertically into an aquifer zone adjacent to or below the plume of contaminated ground water; or
 - (2) The plume of contaminated ground water is contained and therefore not reaching any sentinel well(s), and the ground water remedial action is performing as designed. (N.J.A.C. 7:26C-7.5(d)5)

The LSRP should use Department guidance (i.e., Ground Water Technical Guidance: Site Investigation, Remedial Investigation, and Remedial Action Performance Monitoring document) to determine, what frequency, wells, sampling parameters, and receptors should be monitored. Sampling frequency should be more frequent when receptors are in the vicinity of the CEA. All contaminants of concern should be sampled for in the sentinel well(s). In addition, the degradation of the contaminants of concern should be included as sampling parameters in the GWMP. (N.J.A.C. 7:26E-5.2(a)3iii)

- 7. An Operation, Maintenance, and Monitoring (OMM) Plan for any engineering control, including vapor intrusion mitigation system(s) or POET water treatment systems(s), as applicable. Use the IEC Monitoring and Maintenance Checklist found in the forms library (www.nj.gov/srp/srra/forms) under the IEC Response Action Form.
- 8. A Remediation Cost Review and RFS-FA Form (available at www.nj.gov/srp/srra/forms) with original FA Instrument (if applicable). (N.J.A.C. 7:26C-7.5(c)6 and (d)7)

9. A GIS compatible map of the CEA boundary (email to srpgis_cea@dep.nj.gov). (N.J.A.C. 7:26C-7.3(c)1)

The following actions are required of the permittee(s) once the Department issues a Ground Water Remedial Action Permit for a site:

- ✓ Conduct operation, maintenance, and monitoring of the remedial action as required in the Ground Water Remedial Action Permit.
- ✓ Submit a completed Ground Water Remedial Action Protectiveness/Biennial Certification Form (available at www.nj.gov/srp/srra/forms) biennially (every two years) as indicated by the Ground Water Remedial Action Permit Schedule. All recent and historical ground water sampling data collected at the site and a short summary of the progress and effectiveness of the ground water remedial action are to be included. (N.J.A.C. 7:26C-7.7 and 7.9)

IV. Ground Water Remedial Action Permit Modification:

1. The person who has “Primary Responsibility for Permit Compliance” will be required to obtain a modification of the Ground Water Remedial Action Permit when the following conditions occur:
 - a. A determination that the remedial action is not adequately protective of the public health and safety and of the environment. (N.J.A.C. 7:26C-7.12(b)1)
 - b. The CEA size, duration or contaminants change. (N.J.A.C. 7:26C-7.12(b)2)
 - c. The frequency and parameters of the GWMP need to be modified. (N.J.A.C. 7:26C-7.12(b)2)
 - d. There is a proposal to change the engineering or institutional control. (N.J.A.C. 7:26C-7.12(b)3)
 - e. The ground water remedial action is modified. (N.J.A.C. 7:26C-7.12(b)4)
 - f. The permittee changes its address. (N.J.A.C. 7:26C-7.12(b)6)
 - g. There is a change in the person designated as having “Primary Responsibility for Permit Compliance” among the current co-permittees. (N.J.A.C. 7:26C-7.12(c))

The Ground Water Remedial Action Permit Application for a Modification should be submitted within 30 days after completing the needed changes or remedial action. (N.J.A.C. 7:26C-7.12(b))

Note: The temporary shutdown of an active treatment system to change treatment units or modification of the active treatment system that results in a shutdown of less than 48 hours does not require a modification to the Ground Water Remedial Action Permit. These activities should be reported in your biennial submission of the Ground Water Remedial Action Protectiveness/Biennial Certification Form.

2. In order to apply for a Ground Water Remedial Action Permit Modification, submit the following required items:
 - a. A completed Remedial Action Permit Application Form for Ground Water (available at www.nj.gov/srp/srra/forms). (N.J.A.C. 7:26C-7.5(c)1 and (d)1)
 - b. The applicable Remedial Action Permit Application for Ground Water fee. Be advised that fees may change effective July 1 of each year. (N.J.A.C. 7:26C-7.5(c)7 and (d)8)
 - c. A cover letter with an explanation for the modification and, if applicable, a copy of the RAR that demonstrates the effectiveness of the ground water remedial action. (N.J.A.C. 7:26C-7.5(c)3i and (d)4i)
 - d. A completed CEA/WRA Fact Sheet Form (available at www.nj.gov/srp/srra/forms). (N.J.A.C. 7:26C-7.5(c)2 and (d)2)

- e. A GWMP and schedule designed to monitor the characteristics and movement of contaminated ground water, to calibrate the model used to estimate the eventual extent of contaminated ground water, and to assess the effectiveness of the ground water remedy, including a clean downgradient sentinel well. Be sure to use the GWMP Excel Spreadsheet found in the forms library under the Remedial Action Permit Application Form for Ground Water. (N.J.A.C. 7:26C-7.5(c)4 and (d)5)
- f. An OMM Plan for any engineering control, including vapor intrusion mitigation system(s) or POET water treatment systems(s), as applicable. Be sure to use the IEC Monitoring and Maintenance Checklist found in the forms library under the IEC Response Action Form.
- g. A Remediation Cost Review and RFS-FA Form (available at www.nj.gov/srp/srra/forms) with original FA Instrument (if applicable). (N.J.A.C. 7:26C-7.5(c)6 and (d)7)
- h. A GIS compatible map of the CEA boundary (if applicable). (N.J.A.C. 7:26C-7.3(c)1)

V. Ground Water Remedial Action Permit – Transfer/Change of Property Ownership:

The Person Responsible for Conducting the Remediation and property owner shall submit to the Department a “Remedial Action Permit Transfer/Change of Property Ownership Application and Contact Information Changes” form (available at www.nj.gov/dep/srp/srra/forms/) with the applicable fee after a sale or transfer of the property within 60 days of the sale or transfer.

Notes: The new property owner must sign on as a co-permittee before the former owner is removed from the permit. Any FA that was established as the former property owner will not be released until a new form is established and in place.

Once the Ground Water Remedial Action Permit has been issued, the “Person Responsible for Conducting the Remediation” that is identified on the permit cannot be removed since the remediation has already been completed by that responsible party. However, the person that has “Primary Responsibility for Permit Compliance” can change with the appropriate permit modification fee. If the contact information (contact name, phone number, and email address) for the Person Responsible for Conducting the Remediation needs to be updated, use the “Remedial Action Permit Transfer/Change of Property Ownership Application and Contact Information Changes” form (available at www.nj.gov/dep/srp/srra/forms/). By submitting a Ground Water Remedial Action Permit Application for a modification, Additional Persons Responsible for Conducting the Remediation may be added to a Remedial Action Permit at any time by completing Addendum A. of the application

VI. Termination of a Ground Water Remedial Action Permit:

The permittee may request that the Department terminate a Ground Water Remedial Action Permit when all numeric and narrative Ground Water Remediation Standards have been achieved and the ground water remedial action is determined to be protective of public health and safety and of the environment without the need for the Ground Water Remedial Action Permit. (N.J.A.C. 7:26C- 7.13)

The permittee must collect at least two rounds of ground water samples that account for seasonal fluctuation to determine if the RAP should be terminated and the CEA lifted. (N.J.A.C. 7:26C- 7.9(f))

In order to apply for a Ground Water Remedial Action Permit Termination, submit the following required items:

1. A completed Remedial Action Permit Application Form for Ground Water (available at www.nj.gov/srp/srra/forms). (N.J.A.C. 7:26C-7.5(c)1 and (d)1)
2. The applicable Ground Water Remedial Action Permit Application fee. (N.J.A.C. 7:26C-7.5(c)7 and (d)8)
3. A cover letter with an explanation for the termination along with the ground water data collected to terminate the Ground Water Remedial Action Permit and lift the CEA. (N.J.A.C. 7:26C-7.5(c)3i and (d)4i)

4. All outstanding Ground Water Remedial Action Permit annual fees must be paid before the termination can be approved. (N.J.A.C. 7:26C-7.13(b)6)

VII. Financial Assurance

Financial Assurance (FA) is required if the Ground Water Remedial Action Permit includes a remedial ground water or vapor intrusion engineering control. If the proposed ground water Remedial Action does not include an engineering control, then FA is not required for the permit.

An engineering control is defined in N.J.A.C. 7:26E-1.8 as any physical mechanism to contain or stabilize contamination or ensure the effectiveness of a Remedial Action. An engineering control may include, without limitation, dike, trench, leachate collections system, long term air sparging/soil vapor extraction, vapor mitigation systems/sub-slab depressurization systems, POET water systems, and ground water containment system including, without limitation, a slurry wall, grout jet walls, sheet pilings, or an active ground water pump and treatment system.

If the proposed ground water remedial action includes an engineering control, FA must be established prior to submitting the Ground Water Remedial Action Permit Application unless all permittees are exempt from establishing FA pursuant to N.J.A.C. 7:26C-7.10(c). The following persons do not have an obligation to establish FA pursuant to N.J.A.C. 7:26C-7.7(b):

- ✓ A government entity.
- ✓ A person who is not otherwise liable for cleanup and removal costs pursuant to the Spill Compensation and Control Act, N.J.S.A. 58:10-23.11, who purchased a contaminated site prior to May 7, 2009, and is remediating, or has remediated, the contaminated site pursuant to N.J.S.A. 58:10-23.11g.d.
- ✓ A person who undertakes remediation at that person's primary or secondary residence.
- ✓ The owner or operator of a child care center licensed pursuant to N.J.S.A. 30:5B-1 et seq. who performs remediation at the licensed child care center.
- ✓ The person responsible for performing remediation at a public school or private school as defined in N.J.S.A. 18A:1-1, or a charter school established pursuant to N.J.S.A. 18A:36A-1 et seq.
- ✓ The owner or operator of a small business who is responsible for performing a remediation at his or her business property. N.J.A.C. 7:26C-1.3 defines a "Small Business" as a business entity that does not acquire property for development or redevelopment, and that, during the prior three tax years, employed not more than 50 full-time employees or the equivalent thereof, and qualifies as a small business concern within the meaning of the federal "Small Business Act," 15 U.S.C. section 631 et seq.

Note: In the event that more than one permittee is required to establish FA and one or more of the permittees is exempt from this requirement, the non-exempt permittee(s) shall establish the full amount of the FA required.

Also, if the current property owner is a Homeowner Association or Condominium Association, then FA is typically not required if the Association's annual budget includes common elements related to the engineering control(s) at the site (N.J.A.C. 7:26C-5.3(e)). A copy of the Association's annual budget that includes funds for the operation, maintenance, and monitoring of the engineering control should be provided with the Ground Water Remedial Action Permit Application and any subsequent Ground Water Remedial Action Protectiveness/Biennial Certification Forms submitted for the site. If the Association is ever unable to meet this requirement, then the Person Responsible for Conducting the Remediation is required to establish the FA for the Remedial Action Permit if they are not exempt pursuant to N.J.A.C. 7:26C-7.10(c).

If it is determined that FA must be established for the site, submit a completed Remediation Cost Review and RFS-FA Form which describes how the LSRP estimated the amount of the FA along with the Ground Water Remedial Action Permit Application. This form can be found at www.nj.gov/dep/srp/srra/forms. Attach the original FA mechanism if available or a copy if the person is using an existing Remediation Funding Source (RFS) mechanism as FA.

The following financial instruments are acceptable as FA:

- ✓ A Remediation Trust Fund in accordance with N.J.A.C. 7:26C-5.4.
- ✓ An Environmental Insurance Policy in accordance with N.J.A.C. 7:26C-5.5.
- ✓ A Line of Credit in accordance with N.J.A.C. 7:26C-5.6.
- ✓ A Letter of Credit in accordance with N.J.A.C. 7:26C-5.7.

Be advised that a Self-Guarantee is not acceptable as FA.

Note: If there is a change in the type of FA, then the NJDEP will not authorize the release of an existing FA instrument until a new FA instrument is established and in place. Be advised that the change of the FA instrument type is considered a modification to the permit.

Using an Existing RFS Instrument as FA:

If a permittee is using an existing RFS instrument as the FA for the site, then all three of the following criteria must be met:

1. The LSRP will be issuing an entire site RAO or an AOC RAO that addresses all of the known contaminated AOCs, and there are no remaining contaminated AOCs that require remediation at the site. If there are remaining contaminated AOCs requiring remediation, RFS is still required and the permittee must obtain a separate financial instrument for FA.
2. The amount of the funds in the RFS is equal to the amount of the funds required to be posted for FA. If the amount of the funds in the RFS is either greater than or less than the amount required for FA, you must follow the requirements at N.J.A.C. 7:26C-5.11 to either increase or decrease the funds prior to the submission of the Ground Water Remedial Action Permit Application.
3. The RFS is not in the form of a self-guarantee. If the RFS is in the form of a self-guarantee, you cannot use the existing RFS, but must obtain a separate financial mechanism for FA.

If a permittee is using an existing RFS as FA and had previously submitted the Remediation Cost Review and RFS-FA Form in order to adjust the amount of the RFS so that it is equal to the FA, the permittee may submit a copy of that form with the Ground Water Remedial Action Permit Application.

Calculating FA:

The permittee is responsible for determining the amount of funds needed to operate, maintain, and monitor the engineering control(s) at the site for as long as the engineering control(s) are needed, up to thirty (30) years (minimum of \$30,000 for a 30-year period) pursuant to N.J.A.C. 7:26C-5.2(e) and 7.10. Calculation of the FA is based on the present value yearly cost of operating, maintaining, and monitoring the system(s) including but not limited to labor, power, sampling parameters, and all associated Ground Water Remedial Action Permit costs. A completed Remediation Cost Review and RFS-FA Form, which describes how the LSRP estimated the amount of the FA, must be submitted along with the Ground Water Remedial Action Permit Application.

The following commercially available software programs can be used to calculate FA:

- ✓ Cost Pro
- ✓ RACER (Remedial Action Cost Engineering and Requirements)
- ✓ Other commercially available engineering cost projection software that can develop cost projections for the maintenance of an engineering control.

If present value discounting is being applied in the development of a detailed remediation cost estimate, the

Department requires that all assumptions be disclosed and justification/explanation of the applied assumptions be attached to the cost estimate. Present value discounting should only be applied when the cost estimate is in association with a Remediation Trust Fund. The Department will review each present value discounting on a case-by-case basis.

Please refer to the “Remediation Funding Source (RFS) Guide” (www.nj.gov/dep/srp/guidance/rfsguide/) and the “Remedial Action Permits for Soils Guidance” document (www.nj.gov/dep/srp/guidance/srra/draft_rem_action_permit_guidance_soils.pdf) for additional information on FA.

Recommended Guidance Documents

1. Ground Water Remedial Action Permit Quick Reference Guide: www.nj.gov/dep/srp/srra/training/matrix/quick_ref/rap_gw.pdf.
2. Remedial Action Permit for Ground Water Checklist and Helpful Hints: www.nj.gov/dep/srp/guidance/srra/gw_rap_app_checklist.pdf.
3. MNA Technical Guidance: www.nj.gov/dep/srp/guidance/srra/mna_guidance_v_1_0.pdf.
4. Ground Water CEA Guidance Document: www.nj.gov/dep/srp/guidance/cea/ceaguid2.pdf.
5. Vapor Intrusion Technical Guidance: www.nj.gov/dep/srp/guidance/vaporintrusion/vig_main.pdf?version_4.
6. Ground Water Technical Guidance: Site Investigation, Remedial Investigation, and Remedial Action Performance Monitoring: www.nj.gov/dep/srp/guidance/srra/gw_inv_si_ri_ra.pdf.
7. Technical Guidance for Preparation and Submission of a Conceptual Site Model: www.nj.gov/dep/srp/guidance/srra/csm_tech_guidance.pdf.
8. June 2013 NJDEP Policy Statement: Interpretation of Completing a Remedial Investigation at a Contaminated Site: www.state.nj.us/dep/srp/timeframe/policy_statement.pdf.
9. Off-Site Source Ground Water Investigation Technical Guidance: www.nj.gov/dep/srp/guidance/srra/offsite_source_gw_investigation_guidance.pdf.
10. Commingled Plume Technical Guidance Document: www.nj.gov/dep/srp/guidance/srra/commingled_plume_guidance.pdf.
11. Administrative Guidance for Addressing Unknown Off-Site Sources of Contamination: www.nj.gov/dep/srp/guidance/srra/offsite_source_guidance.pdf.
12. Technical Impracticability Guidance for Ground Water: www.nj.gov/dep/srp/guidance/srra/ti_guidance_gw.pdf.
13. IEC-GAC POET Specifications: www.nj.gov/dep/srp/guidance/srra/poet_specs.pdf.
14. Remedial Action Permit Requirements for RCRA GPRA 2020, CERCLA & Federal Facility Sites under Traditional DEP Oversight: www.nj.gov/dep/srp/guidance/srra/rem_action_permit_dep_oversight.pdf.
15. Well Search Guidance: www.nj.gov/dep/srp/guidance/ceacompliance/.
16. Public Notification & Outreach Guidance: www.nj.gov/dep/srp/guidance/public_notification/.
17. Submission and Use of Data in GIS Compatible Formats Pursuant to Technical Requirements for Site Remediation: www.nj.gov/dep/srp/gis/index.html.
18. Field Sampling Procedures Manual: www.nj.gov/dep/srp/guidance/fspm/.
19. Low-Flow Purging and Sampling Guidance: www.nj.gov/dep/srp/guidance/lowflow/.
20. Investigating Impacts from Contaminated Sites to a Surface Water: www.nj.gov/dep/srp/guidance/srra/inv_impacts_to_surface_water.pdf.
21. Ecological Evaluation Technical Guidance: www.nj.gov/dep/srp/guidance/srra/ecological_evaluation.pdf.
22. Electronic Compendium of Selected NJDEP Environmental Standards – SWQS, N.J.A.C. 7:9B; GWQS, N.J.A.C. 7:9C; DWQS, N.J.A.C. 7:10; and SRS, N.J.A.C. 7:26D: www.nj.gov/dep/standards/.
23. Implementation of November 25, 2015 Interim Ground Water Quality Criteria, PQLs and Standards: www.nj.gov/dep/srp/guidance/srra/srwmp_implementing_11-25-15_interim_gwqs.pdf.
24. Remediation Funding Source (RFS) Guide: <http://www.nj.gov/dep/srp/guidance/rfsguide/>.