Third Explanation of Significant Differences

Site 9, Old Fire Fighting Training Area (OU3)
Naval Station Newport, Rhode Island

Revision of Groundwater Monitoring and Groundwater Cleanup Levels

Introduction and Statement of Purpose

This Third Explanation of Significant Differences (ESD) is required for Site 9, Old Fire Fighting Training Area (OFFTA), Naval Station (NAVSTA) Newport, Newport, Rhode Island, to document several changes to the 2010 Record of Decision (ROD) for the site to respond to (1) reclassification of the groundwater at the Site; and (2) the results of the investigation of groundwater movements.

Site 9 is tracked as Operable Unit (OU) 3 within the Naval Station Newport (formerly Naval Education and Training Center) Superfund Site. The first ESD for OU3 was issued in September 2012 to add cleanup standards for asbestos to the OU3 remedy. The second ESD, issued in June 2014, clarified the performance standards for monitoring arsenic in groundwater.

This Third ESD modifies the OU3 ROD by updating the applicable groundwater criteria for the site to RIDEM GB Groundwater Objectives and federal non-potable risk-based standards for Site groundwater and as a result of the application of these standards, removing the groundwater monitoring requirement. As an administrative detail, the applicable or relevant and appropriate requirements (ARARs) for the State of Rhode Island that are associated with the remedy are updated with the State's current citations.

Summary

Among the risks identified in the OU3 ROD was the risk to hypothetical future residential exposure to groundwater at the Site. The ROD noted that although the groundwater is not used for drinking water and Rhode Island Department of Environmental Management (RIDEM) had classified the groundwater as GB (may not be suitable for drinking water without treatment), it had not been officially classified by the United States Environmental Protection Agency (EPA) as a non-drinking water source. In the absence of EPA concurrence with the GB classification, Federal and State drinking water standards were applied to all CERCLA cleanup actions within the Base, including for the OU3 ROD. The OU3 ROD presumed a potential drinking water risk and provided for a land use control (LUC) preventing the use of groundwater for any consumptive purpose, including for household use, drinking water supply, irrigation, or industrial use.

On March 19, 2018, the EPA endorsed the Rhode Island Core Comprehensive State Groundwater Protection Program (CSGWPP), including the State's classification system for groundwater within the State. The CSGWPP establishes state-enforceable criteria for groundwater under various classifications as described in the RIDEM Office of Waste Management Regulations 250-RICR-30-1, amended November 2011, and the RIDEM Groundwater Quality Rules 250-RICR-140-05-3, Section 3.11.

On August 27, 2020, the State issued a Groundwater Use and Value Determination (GUVD) for the Site which, based on the State's process for assessing the use and value of groundwater within the State, determined that groundwater within OU3 was of low use and value.

EPA's endorsement of the State's CSGWPP and RIDEM's determination that the groundwater within and adjacent to OU3 is of low use and value allows for the application of RIDEM GB Groundwater Objectives and federal non-potable risk-based standards to Site groundwater. Since groundwater monitoring has not documented any exceedances of non-potable risk-based or State regulatory groundwater standards, and because there is no current use of groundwater, the groundwater monitoring component to the OU3 ROD is discontinued.

The institutional controls required by the ROD and documented in the LUC Remedial Design (Navy, 2018) will remain to prevent residential use of the site, prevent any consumptive use of the groundwater, and ensure protections for construction workers. The State Groundwater Classifications do not restrict potable and/or non-potable use of site groundwater. Therefore, these LUCs are necessary to

prevent these exposure scenarios and will remain in place as part of the combined soil and groundwater remedy for OU3.

This ESD also identifies ARARs that have been either added or removed for the OU3 remedy, as described above (Attachment A, Table A-1). Such revision is consistent with U.S. EPA guidance (USEPA 1999). As an administrative update, Table A-2 updates the OU3 State ARAR citations identified in the ROD and prior ESDs, to reflect recent changes to the State's regulatory citation system.

The Navy is the lead agency, with oversight from the EPA and RIDEM, for cleanup of sites at NAVSTA Newport under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended.

The OU3 ROD was signed by the Navy on September 21, 2010 and signed by EPA on September 28, 2010. The first ESD was signed in September 2012 and the second ESD was signed in June 2014. The Navy is issuing this third ESD as part of the public participation requirements under Section 117(c) of CERCLA; Title 40 of the Code of Federal Regulations (CFR), Part 300.435(c)(2)(i); and the Navy Environmental Restoration Program (ERP). Part 300 of 40 CFR is entitled the National Oil and Hazardous Substances Pollution Contingency Plan (NCP).

In accordance with 40 CFR 300.825(a)(2) of the NCP, this ESD will become part of the Administrative Record for the facility. The Administrative Record also contains background information that was used in determining the selected remedy (as documented in the ROD), and in preparing this ESD. The Administrative Record for NAVSTA Newport is included as part of the Information Repository, which is available for review at the following website: http://go.usa.gov/DyNw.

Site History, Contamination, and Selected Remedy

Site 9 is the Old Fire Fighting Training Area located at the north end of Coasters Harbor Island within NAVSTA Newport, and lies within the municipality of Newport, Rhode Island. It is approximately 8.2 acres in size. This area was formerly used as a Navy firefighting training facility from World War II until 1972.

Contaminants in soil and groundwater identified at the site during past environmental assessments are attributed primarily to the historical firefighting training activities, and include residual burned and unburned fuels and their components.

The ROD for OU3 describes a combined selected remedy for soil and groundwater at the site: constructing and maintaining an asphalt/soil cover system with surface water control structures, monitoring sediment and groundwater, implementing LUCs, and conducting five-year reviews.

Prior remedy components specific to the groundwater consist of groundwater elevation and flow monitoring upgradient of the compliance boundary to assure that contaminants are not migrating away from the site into areas where there are no LUCs to prevent groundwater use; and implementing LUCs within the site boundary to prevent use of the groundwater for any consumptive purposes such as industrial or household use, drinking water supply, or irrigation.

The groundwater chemicals of concern (COCs) identified in the ROD are benzene, 2-methylnaphthalene, arsenic, chromium, lead, and manganese. These COCs were predicted to pose a risk to future receptors who use groundwater as a potable source under a default potential residential use scenario. Maximum concentrations of these COCs that were detected in groundwater at the site are presented on Table 1, provided on the following page.

The expected groundwater flow direction at this site is from south to north. However, during the development of the ROD for this site, it was suspected that under extreme tidal conditions or unusually heavy precipitation events, groundwater from the site could flow toward the south, across the site boundary to areas of Coasters Harbor Island where LUCs controlling groundwater use were not established. Therefore, the remedy element to monitor groundwater flow was determined to be necessary at that time.

Basis for the Document

Per the CSGWPP, RIDEM classifies the groundwater as GB at specific portions of NAVSTA, including all of Coasters Harbor Island and OU3. In addition, the State Use and Value Determination for OU3 determined the aquifer was of low use and value. Therefore, the GB Objectives and other risk-based criteria cited in Section 1.9.3(D)(2) and Section 1.9.3(F)(5)(Table 4) of the RIDEM Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases (Remediation

Regulations) (250-RICR-140-30-1) are applicable to these areas.

Table 1, below, presents COCs selected for groundwater as documented in the ROD, the new non-drinking water criteria published by RIDEM that are now applicable to the site under this ESD (GB criteria), maximum concentrations of COCs measured in the groundwater at the site before cleanup, and more current concentrations of the COCs measured in groundwater at the site after cleanup.

Table 1
Groundwater COCs and GB Criteria

Site COCs	GB Criteria (µg/L)	Max Conc. (µg/L)(1)	Recent Conc.(2) (ug/L)
Arsenic	NA	49.8	4.0
Chromium	NA	39.9	6.3
Lead	NA	207	10
Manganese	NA	12,500	4,210
Benzene	140	33	ND
2- Methyl-naphthalene	NA	190	ND

1) Maximum concentrations detected during initial investigations and before the remedial actions.
2) Recent concentrations are the maximum concentrations measured during post-remediation LTM (2014 - 2018).

ND = Not Detected
NA = None Applicable

As stated in 250-RICR-150-05-3(3.9) of the RIDEM Groundwater Quality Rules, groundwater classified as GB, "shall be those groundwater resources designated by the Director which may not be suitable for public or private drinking water use without treatment due to known or presumed degradation."

Furthermore, under EPA CERCLA groundwater guidance, for Low Use and Value Aquifers, as determined by the RIDEM GUVD, drinking water standards are not the remedial goal. Rather, non-drinking water exposures (contact and inhalation risks) and any migration of contaminants only need to be considered by the remedy.

Description of Significant Differences

Based on EPA's endorsement of the RIDEM's CSGWPP, RIDEM's determination that the groundwater within and adjacent to OU3 is of low use and value, and site groundwater not exceeding non-potable risk-based or regulatory standards, the OU3 remedy is modified so that federal and state drinking water standards no longer apply. This ESD does not change the ROD's requirements for LUCs to be maintained to prevent groundwater use and protect the soil cover remedy.

Of the COCs for groundwater identified in the ROD, none have been found at levels that exceed federal risk-based standards for non-drinking water exposure or RIDEM's GB groundwater cleanup standards since the soil cleanup was conducted (Table 1).

In 2018, Navy investigations of long-term monitoring data and a study of tidal influence on groundwater flow determined that groundwater migrates across OU3 to Narragansett Bay rather than flowing south into areas outside of OU3 (Tetra Tech, 2018). Based on this information the Navy, EPA, and the State agreed that the groundwater monitoring component of the remedy was no longer needed and that sediment monitoring in the Bay for site contaminants would address the long-term monitoring requirements of the OU3 remedy.

Based on the remedy changes noted above, ARARs pertaining to the federal drinking water standards have been eliminated, state groundwater remediation ARARs standards for GA groundwater have been replaced with remediation standards for GB groundwater, and state regulatory requirements pertaining to groundwater monitoring have been removed from the remedy.

The ESD also modifies the state's regulatory citations in the ARARs tables for the soil component to the remedy, based on post-ROD State regulatory citation changes (Table A-2).

This ESD does not remove protections from exposure to groundwater. The site has been established under the ROD as a waste management unit, and there is no change to this status under this ESD. State regulations (specifically 250-RICR-140-05-1) describes closure requirements for waste management units including inspection and other management requirements. In addition, State rules and regulations cited in 440-RICR-10-00-6, Section 6.24 prohibit installation of water wells within 1000 feet of a waste management unit.

The institutional controls required by the ROD and documented in the LUC Remedial Design (Revision 2) (Navy, 2019) will remain to prevent residential use of the site, prevent any consumptive use of the groundwater, and ensure protections for construction workers. These LUCs will remain in place as part of the combined soil and groundwater remedy for OU3.

Support Agency Comments

EPA and RIDEM representatives, as part of the NAVSTA Newport Installation Restoration (IR) Team, have had ongoing involvement in the decision-making process associated with this new finding and subsequent change in the OU3 selected remedy. The Navy has obtained concurrence from RIDEM on the modification to the selected remedy for OU3 as described in this ESD.

Statutory Determinations

The Navy has determined that the application of RIDEM GB Groundwater Objectives and federal non-potable risk-based standards to Site groundwater and elimination of the groundwater monitoring requirement is warranted based on changes to the groundwater standards for the site to non-potable use.

Revisions to the ARARs for the remaining components of the OU3 remedy pertaining to revisions to the State's regulatory citation system are attached to this document.

There are no other changes to any other component of the remedy. The proposed changes to the selected remedy will continue to satisfy the statutory requirements of CERCLA Section 121, the modified remedy will remain protective of human health and the environment and will continue to comply with federal and state ARARs, and will remain cost-effective.

Public Participation

Public participation requirements as outlined in the NCP, 40 CFR 300.435(c)(2)(i), have been met by including this ESD in the Administrative Record for OU3 and by publishing a notice of availability of the ESD in the Newport Daily News within 2 weeks of regulatory concurrence on this document. In addition, the Navy regularly meets to discuss the status and progress of the ERP with the Restoration Advisory Board (RAB), which includes representatives from Newport and Middletown, Rhode Island. Representatives from the Navy, EPA, and RIDEM attend these meetings. The incorporation of the changes to the remedy resulting from the endorsement of the CSGWPP and the State's determination of low groundwater use and value which resulted in the elimination of the groundwater monitoring component of the OU3 remedy and changes to ARARs will be discussed at the RAB meeting on September 20, 2023

For Additional Information

If you have questions or would like further information about the ESD for OU3 at NAVSTA Newport, please contact:

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REFERENCES

Navy, 2010. *Record of Decision for Site 9-Old Fire Fighting Training Area, Naval Station Newport, Newport, Rhode Island*. September.

Navy, 2018. *Land Use Control Remedial Design for Site 9-Old Fire Fighting Training Area, Naval Station Newport, Newport, Rhode Island*. January.

Navy, 2012. *Explanation of Significant Differences, Site 9 Old Fire Fighting Training Area, Naval Station Newport, Rhode Island, Addition of Asbestos as a Contaminant of Concern*. September.

Navy, 2014. *Explanation of Significant Differences, Site 9 Old Fire Fighting Training Area, Naval Station Newport, Rhode Island, Change in Groundwater Performance Standard to Arsenic to the Federal Maximum Contaminant Level.* June.

Tetra Tech NUS, 2007. *Supplemental Risk Evaluation for Old Fire Fighting Training Area, Naval Station Newport, Newport, Rhode Island*. November. (Appendix C to the Revised Feasibility Study Report – Tetra Tech NUS, 2009)

Tetra Tech NUS, 2009. *Revised Feasibility Study for Old Fire Fighting Training Area, Naval Station Newport, Newport, Rhode Island*. December.

Tetra Tech, 2018. *Tidal Effect on Groundwater Elevations; Site 9 Old Fire Fighting Training Area, Naval Station Newport, Newport Rhode Island.* Memorandum from Stephen Parker and Jamie Greacen to Ms. Rachel Dunleavy April 4.

State of Rhode Island, Groundwater Quality Rules; 250-RICR-150-05-3, promulgated under RI General Laws Chapter 46-12, Water Pollution; Chapter 46-13.1, Groundwater Protection etc. Amended January 9, 2019.

USEPA, 1999. A Guide to Preparing Superfund Proposed Plans, Records of Decision, and other Remedy Selection Documents, Section 7.3 – Documenting Post-Record of Decision Changes. EPA 540-R-98-031. July.

USEPA, 1996. Groundwater Use and Value Determination Guidance. EPA Region 1, New England. Final Draft April 3.

Rhode Island Department of Environmental Management, 2020 Old Fire Fighting Training Area, Site 9, Operable Unit 3 –Naval Station Newport Rhode Island Groundwater Use and Value Determination. Letter from Terrence Grey to Bryan Olson, Director, Superfund and Emergency Management Division, U.S. EPA Region 1. August 27.

U.S. EPA, 2018. Letter from Alexandra Dapolito Dunn, U.S. EPA Regional Administrator to Janet Coit, Director, Rhode Island Department of Environmental Management. Endorsement of the Rhode Island Core Comprehensive State Groundwater Protection Program (CSGWPP). March 19.

DECLARATION

In recognition of endorsement of the RI CSGWPP, the State's determination of low use and value for groundwater within OU3, groundwater monitoring that has documented no non-potable use exposure risk in groundwater, and State regulatory changes, the groundwater monitoring component of the OU3 remedy has been eliminated and State ARARs for the OU3 remedy have been updated. This ESD makes these modifications to the OU3 remedy.

For the foregoing reasons, by my signature below, I approve the issuance of this ESD for the ROD for OU3 at NAVSTA Newport.

United States Department of the Navy:

9/28/23

Henry Roenke — Date
Captain, U. S. Navy
Commanding Officer
Naval Station Newport, Rhode Island

United States Environmental Protection Agency:

Olson, Bryan

Digitally signed by Olson, Bryan
Date: 2024.01.25 09:05:51 -05'00'

Bryan Olson, — Date
Director, Superfund and Emergency Management Division
U.S. EPA Region 1

Attachment A

ARARs and Citation Revisions

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TABLE A-1
ARAR REVISIONS
THIRD EXPLANATION OF SIGNIFICANT DIFFERENCES
OLD FIRE FIGHTING TRAINING AREA NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

STATE OF RHODE ISLAND CHEMICAL-SPECIFIC ARAR REVISIONS

Requirement	Original Citation	New RICR Citation (1)	Status	Synopsis of Requirement	Action to Be Taken to Attain ARAR
Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases (Remediation Regulations) – Soil Direct Exposure and Leachability Criteria	CRIR 12-180-001, Section 8: DEM-DSR-01-93, as amended February 2004	250-RICR-140-30-1, Sections 1.9.2(B)(1) and Table 1; 1.9.2(B)(2) and Table 2	Applicable	These regulations set remediation standards for contaminated media. These standards are applicable to a CERCLA remedy when they are more stringent than federal standards. Establishes criteria for both direct contact and leachability in soil.	These standards were used to develop soil PRGs. This alternative meets this standard because soil exceeding PRGs is isolated from exposure to receptors with a barrier and soil cover. There are no exceedances of leachability standards for GB groundwater. Long term monitoring will assess whether contamination does not migrate and LUCS will prevent residential use of the property, disturbance of the cover.

1) Rhode Island Code of Regulations (RICR) Citations set in accordance with the 2016 amendments to the Rhode Island Administrative Procedures Act.

TABLE A-1
ARAR REVISIONS
THIRD EXPLANATION OF SIGNIFICANT DIFFERENCES
OLD FIRE FIGHTING TRAINING AREA NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

STATE OF RHODE ISLAND LOCATION-SPECIFIC ARAR REVISIONS

Requirement	Original Citation	New RICR Citation (1)	Status	Synopsis of Requirement	Action to Be Taken to Attain ARAR
NONE					

1) Rhode Island Code of Regulations (RICR) Citations set in accordance with the 2016 amendments to the Rhode Island Administrative Procedures Act.

TABLE A-1
ARAR REVISIONS
THIRD EXPLANATION OF SIGNIFICANT DIFFERENCES
OLD FIRE FIGHTING TRAINING AREA NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

STATE OF RHODE ISLAND ACTION-SPECIFIC ARAR REVISIONS

Requirement	Original Citation	New RICR Citation [1]	Status	Synopsis of Requirement	Action to Be Taken to Attain ARAR
Water Pollution Control - Water Quality	RIGL 42-16 *et seq.*; CRIR 12-190-001	R.I.G.L. 46-12 *et seq.*; 250-RICR-150-05-1, Sections 1.9 and 1.10	Applicable	Establishes water use classification and water quality criteria for waters of the state.	Construction and O&M of the cover as well as O&M of the shoreline revetment will be managed so as to not discharge contaminants into adjacent waters.
Rhode Island Solid Waste Regulations	DEM OWM-SW04-01, 1.8.01 (a) and 1.8.01 (b)	250-RICR-140-05-1, Section 1.10(B)(1) & (2)	Relevant and Appropriate	Requires facilities meet closure requirements.	The substantive requirements of this section of the regulations will be met by meeting closure requirements. Because contaminants will be left in place the site will be closed as a waste management unit. The remedial design (RD), remedial action work plan (RAWP), operations and monitoring plan (O&M) (including the long-term monitoring plan [LTMP] for sediments) developed for this cleanup will contain the specific closure requirements for the waste management unit that will comply with the substantive requirements.
Solid Waste Regulations No. 2 Solid Waste Landfills – Well and Piezometer Management/ Abandonment	DEM OWM-SW04-01, 2.1.08 (c)	250-RICR-140-05-2, Section 2.1.8(c)	Relevant and Appropriate	Contains requirements for monitoring wells and piezometers for monitoring solid waste landfills.	The substantive requirements of this section of the regulations pertaining to the abandonment of existing monitoring wells/piezometers on site that are no longer needed will be met.

1) Rhode Island Code of Regulations (RICR) Citations set in accordance with the 2016 amendments to the Rhode Island Administrative Procedures Act.

TABLE A-1
ARAR REVISIONS
THIRD EXPLANATION OF SIGNIFICANT DIFFERENCES
OLD FIRE FIGHTING TRAINING AREA NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

ADDED ACTION-SPECIFIC ARARs

Requirement	Original Citation	New RICR Citation (1)	Status	Synopsis of Requirement	Action to Be Taken to Attain ARAR
Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases-Points of Compliance	Not cited in the ROD	250-RICR-140-30-1, Section 1.9.8(B)(2)	Applicable	Establishes points of compliance for Class GB groundwater	RIDEM Points of Compliance with GB Groundwater Objectives may be applied at the site pursuant to the requirements outlined in Section 1.9.8 (B)(2). These objectives have been met using long term monitoring, maintenance of the source control remedy, and restrictions preventing use of groundwater and exposure to groundwater contaminants.
Rules and Regulations for Well-Drillers, Pump Installers, and Water Filtration Contractors	Not cited in the ROD	440-RICR-10-00-6, Section 6.24.6 (A), (D), and Table 3	Applicable	Establishes construction standards for non-public water wells.	Construction Standards for Non-Public Water Wells prohibit installation of non-public water wells within 1000 feet of the waste management area.
Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases – Groundwater Objectives	DEM-DSR-01-93 Section 8.03, A to D.	250-RICR-140-30-1, Section 1.9.3 Changed from the GA cleanup standards cited in the Chemical-specific Table for the ROD and prior ESD	Applicable	Establishes standards for Class GB groundwater.	RIDEM [Aquifer Class "GB"] Method 1 Groundwater Objectives may be applied at the site pursuant to the requirements outlined in Section 1.9.3. If insufficient information exists for individual contaminants and/or pollutants to meet any of the requirements outlined in Section 1.9.3 additional investigation and/or an ecological risk assessment, pursuant to Section 1.9.3(C) may be warranted. These objectives have been met using long term monitoring, maintenance of the source control remedy, and restrictions preventing use of groundwater and exposure to groundwater contaminants.
Groundwater Quality Rules - Groundwater Quality Standards and Preventive Action Limits	250-RICR-150-05-3, Section 3.11	250-RICR-150-05-3, Section 3.11 Changed from the GA cleanup standards cited in the Chemical-specific Table for the ROD and prior ESD	Applicable	Defines requirements to protect groundwater quality for beneficial uses. Provides classification of groundwater throughout the state. Sets groundwater remediation standards for drinking water (GAA and GA) and non-drinking water (GB) groundwater classes. These standards are applicable when they are more stringent than federal standards.	These objectives have been met using long term monitoring, maintenance of the source control remedy, and restrictions preventing use of groundwater and exposure to groundwater contaminants.

1) Rhode Island Code of Regulations (RICR) Citations set in accordance with the 2016 amendments to the Rhode Island Administrative Procedures Act.

TABLE A-1
ARAR REVISIONS
THIRD EXPLANATION OF SIGNIFICANT DIFFERENCES
OLD FIRE FIGHTING TRAINING AREA NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

DELETED ACTION-SPECIFIC ARARS

Requirement	Citation	New RICR Citation (1)	Status	Synopsis of Requirement	Action to Be Taken to Attain ARAR
Safe Drinking Water Act Maximum Contaminant Levels (MCLs)	40 CFR 141.11-141.16, Subpart B	Not Applicable	Removed as an ARAR	These standards are for protection of drinking water sources. MCLs consider health factors as well as economic and technical feasibility of removing a contaminant.	Standard no longer relevant or appropriate because groundwater now only needs to meet non-potable standards.
Rhode Island Solid Waste Regulations	DEM OWM-SW04-01, 1.8.01 (a)	250-RICR-140-05-1, Section 1.10(B)(1)	Removed as an ARAR	Requires waste facilities to monitor groundwater.	The remedy has been modified by this ESD to remove the ROD's and this ARAR's requirement for groundwater monitoring of the waste management area since the site is immediately adjacent to Narragansett Bay. Long-term monitoring will consist of sediment monitoring in the Bay.
Rhode Island Solid Waste Regulations No. 2 Solid Waste Landfills – Monitoring Wells	DEM OWM-SW04-01, 2.3.11	250-RICR-140-05-2, Section 2.3.11	Removed as an ARAR	Contains requirements for monitoring wells.	The remedy has been modified by this ESD to remove the ROD's and this ARAR's requirement for groundwater monitoring of the waste management area since the site is immediately adjacent to Narragansett Bay. Long-term monitoring will consist of sediment monitoring in the Bay.
Solid Waste Regulations	DEM OWM-SW04- 01, 2.1.08 (a) (8)	250-RICR-140-05-2, Section 2.1.8(b)(8)	Removed as an ARAR	Contains requirements for construction of monitoring wells to monitor a solid waste landfill.	The substantive requirements of this section of the regulations will be met for construction of new monitoring wells

1) Rhode Island Code of Regulations (RICR) Citations set in accordance with the 2016 amendments to the Rhode Island Administrative Procedures Act.

TABLE A-2
REVISIONS TO CITATIONS, STATE OF RHODE ISLAND ARARS
THIRD EXPLANATION OF SIGNIFICANT DIFFERENCES
OLD FIRE FIGHTING TRAINING AREA NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

STATE OF RHODE ISLAND CHEMICAL-SPECIFIC ARAR CITATION CHANGES

Requirement	Original Citation	New RICR Citation (1)	Status	Synopsis of Requirement	Action to Be Taken to Attain ARAR
Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases (Remediation Regulations) – Soil Direct Exposure and Leachability Criteria	CRIR 12-180-001, Section 8: DEM-DSR-01-93, as amended February 2004	250-RICR-140-30-1, Sections 1.9.2(B)(1) and Table 1; 1.9.2(B)(2) and Table 2	Applicable	These regulations set remediation standards for contaminated soil. These standards are applicable to a CERCLA remedy when they are more stringent than federal standards. Establishes criteria for both direct contact and leachability in soil.	These standards were used to develop soil PRGs. This alternative meets this standard because soil exceeding PRGs is isolated from exposure to receptors with a barrier and soil cover. There are no exceedances of leachability standards for GB groundwater. Long term monitoring will assess whether contamination does not migrate and LUCS will prevent residential use of the property, disturbance of the cover and exposure to contaminated soil.

1) Rhode Island Code of Regulations (RICR) Citations set in accordance with the 2016 amendments to the Rhode Island Administrative Procedures Act.

TABLE A-2
REVISIONS TO CITATIONS, STATE OF RHODE ISLAND ARARS
THIRD EXPLANATION OF SIGNIFICANT DIFFERENCES
OLD FIRE FIGHTING TRAINING AREA NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

STATE OF RHODE ISLAND LOCATION-SPECIFIC ARAR CITATION CHANGES

Requirement	Original Citation	New RICR Citation (1)	Status	Synopsis of Requirement	Action to Be Taken to Attain ARAR
Coastal Resource Management Council Act, Coastal Management Program "Red Book"	RIGL 46-23-1 *et seq.*	RIGL 46-23-1 *et seq.*; 650-RICR-20-00-1, Section 1.2.2	Applicable	Sets standards for management and protection of coastal resources.	The entire site is located in a coastal resource management area. Therefore, applicable coastal resource management requirements need to be addressed.
Rhode Island Endangered Species Act	RIGL 20-37-1 *et seq.*	No Change	Applicable	Regulates activities affecting state-listed endangered species or their critical habitat.	The State listed loggerhead turtle and Kemps- Ridley turtle occur in the waters of Narragansett Bay. The Navy will coordinate with appropriate agencies to find ways to minimize adverse effects to listed species for the O&M of the revetment and cover system within the 100 year flood zone.

1) Rhode Island Code of Regulations (RICR) Citations set in accordance with the 2016 amendments to the Rhode Island Administrative Procedures Act.

TABLE A-2
REVISIONS TO CITATIONS, STATE OF RHODE ISLAND ARARS
THIRD EXPLANATION OF SIGNIFICANT DIFFERENCES
OLD FIRE FIGHTING TRAINING AREA NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

STATE OF RHODE ISLAND ACTION-SPECIFIC ARAR CITATION CHANGES

Requirement	Original Citation	New RICR Citation (1)	Status	Synopsis of Requirement	Action to Be Taken to Attain ARAR
Clean Air Act - Fugitive Dust Control	RIGL 23-23 *et seq*.; CRIR 12-31-05	R.I.G.L. 23-23 *et seq*.; 250-RICR-120-05-5	Applicable	Requires that reasonable precaution be taken to prevent particulate matter from becoming airborne.	Dust control measures would be incorporated during construction activities to prevent material from becoming airborne.
Clean Air Act - Emissions Detrimental to Persons or Property	RIGL 23-23 *et seq*.; CRIR 12-31-07	R.I.G.L. 23-23 *et seq*.; 250-RICR-120-05-7	Applicable	Prohibits emissions of contaminants which may be injurious to humans, plant or animal life or cause damage to property or which reasonably interferes with the enjoyment of life and property.	Monitoring of air emissions during regrading will be used to assess compliance with these standards if threshold levels are reached.
Clean Air Act - Air Pollution Control	RIGL 23-23 *et seq*.; CRIR 12-31-09	R.I.G.L. 23-23 *et seq*.; 250-RICR-120-05-9	Applicable	Establishes guidelines for the construction, installation, or operation of potential air emission units. Establishes permissible emission rates for some contaminants.	No emissions are expected; however, regrading activities would be monitored and any if any control system is required it will meet the substantive provisions of the standards if threshold levels are reached.
Solid Waste Regulation No. 2, Solid Waste Landfills – Floodplain, Wetlands, Coastal Restrictions	DEM OWM-SW0401, 2.3.14	250-RICR-140-05-2, Section 2.3.14	Relevant and Appropriate	Provides requirements for new solid waste landfill units and expansions that impact wetlands and coastal wetlands, coastal flood zones, etc.	This alternative will involve alteration of land within a 100-year coastal flood zone. The substantive requirements of this section of the regulations will be met by protecting the adjacent coastal wetland resources during construction and maintenance of a soil cover over soil containing residual contamination. The RD, RAWP, and the LTMP will be developed and provide specific requirements, to meet the substantive requirements of this section.
Solid Waste Regulations No. 2 Solid Waste Landfills – Unstable Areas	DEM OWM-SW04-01, 2.3.23	250-RICR-140-05-2, Section 2.3.23	Relevant and Appropriate	Provides requirements for closure of solid waste units in “unstable areas”, including within the 100-year flood zone.	This alternative establishes a waste management area within a 100-year coastal flood zone. The substantive requirements of this section of the regulations will be met through the closure of the waste management area. This alternative meets the intent because the waste management area will be covered in a manner that prevents the release of contaminants during a 100-year flood event and will be protected from coastal erosion by the stone revetment.

1) Rhode Island Code of Regulations (RICR) Citations set in accordance with the 2016 amendments to the Rhode Island Administrative Procedures Act.

TABLE A-2
REVISIONS TO CITATIONS, STATE OF RHODE ISLAND ARARS
THIRD EXPLANATION OF SIGNIFICANT DIFFERENCES
OLD FIRE FIGHTING TRAINING AREA NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Requirement	Original Citation	New RICR Citation (1)	Status	Synopsis of Requirement	Action to Be Taken to Attain ARAR
Clean Air Act - Air Toxics	RIGL 23-23 *et seq.*; CRIR 12-31-22	R.I.G.L. 23-23 *et seq.*; 250-RICR-120-05-22	Applicable	Prohibits the emission of specified contaminants at rates which would result in ground level concentrations greater than acceptable ambient levels or acceptable ambient levels as set in the regulations	Monitoring of air emissions during regrading will be used to assess compliance with these standards if threshold levels are reached. Operation and maintenance activities will be carried out in a manner which will minimize potential air releases.
Water Pollution Control - Water Quality	RIGL 42-16 *et seq.*; CRIR 12-190-001	R.I.G.L. 46-12 *et seq.*; 250-RICR-150-05-1, Sections 1.9 and 1.10	Applicable	Establishes water use classification and water quality criteria for waters of the state.	Construction and O&M of the cover as well as O&M of the shoreline revetment will be managed so as to not discharge contaminants into adjacent waters.
Regulations for Solid Waste Management Facilities - Closure	DEM OWM-SW04-01, 1.7.14(b)	250-RICR-140-05-1, Section 1.9(O)	Relevant and Appropriate	Regulation states that an approved closure plan must be implemented.	The site will be closed under a plan developed in accordance with the substantive requirements of this section of the regulations, (to be incorporated into the remedial design (RD,) and the Operations and Maintenance Plan (O&M) (including a monitoring plan).
Regulations for Solid Waste Management Facilities - Dust Control	DEM OWM-SW04-01, 1.7.10	250-RICR-140-05-1, Section 1.9(K)	Relevant and Appropriate	Requires dust control.	Dust must be controlled at the site during cover construction and during maintenance activities.
Regulations for Solid Waste Management Facilities - Dust Control – Safety Provisions	DEM OWM-SW04-01, 1.7.12 (a)	250-RICR-140-05-1, Section 1.9(M)	Relevant and Appropriate	Requires solid waste management facilities be designed and maintained to protect the health and safety of personnel at the facility and persons in close proximity.	Under this subsection health and safety of construction workers and persons in the proximity of the site would be maintained during construction and maintenance activities.

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Requirement	Original Citation	New RICR Citation [1]	Status	Synopsis of Requirement	Action to Be Taken to Attain ARAR
Rhode Island Solid Waste Regulations	DEM OWM-SW04-01, 1.8.01 (a) and 1.8.01 (b)	250-RICR-140-05-1, Section 1.10(B)(1) & (2)	Relevant and Appropriate	Requires facilities to meet closure requirements.	The substantive requirements of this section of the regulations will be met by meeting closure requirements Because contaminants will be left in place the site the site will be closed as a waste management unit. The remedial design (RD), remedial action work plan (RAWP), operations and monitoring plan (O&M) (including the long-term monitoring plan [LTMP] for sediments) developed for this cleanup will contain the specific closure requirements for the waste management unit that will comply with the substantive requirements.
Solid Waste Regulations – Sedimentation and Erosion Control	DEM OWM-SW04-01, 2.1.04	250-RICR-140-05-2, Section 2.1.4	Relevant and Appropriate	Requires a Sedimentation and Erosion Control Plan" be developed.	An erosion and sediment control plan will be developed for this site in accordance with the substantive requirements of this section. The RD and the RAWP, to be developed for this cleanup, will contain the specific erosion and sediment controls requirements for the remedial construction.
Solid Waste Regulations – Groundwater Monitoring Wells	DEM OWM-SW04-01, 2.1.08 (a) (8)	250-RICR-140-05-2, Section 2.1.8(b)(8)	Relevant and Appropriate	Contains requirements for construction of monitoring wells to monitor a solid waste landfill.	The substantive requirements of this section of the regulations will be met for construction of new monitoring wells (to the extent any monitoring wells need to be constructed in the future).
Solid Waste Regulations No. 2 Solid Waste Landfills – Well and Piezometer Management/ Abandonment	DEM OWM-SW04-01, 2.1.08 (c)	250-RICR-140-05-2, Section 2.1.8(c)	Relevant and Appropriate	Contains requirements for monitoring wells and piezometers for monitoring solid waste landfills.	The substantive requirements of this section of the regulations pertaining to the abandonment of existing monitoring wells/piezometers on site no longer needed because of the removal of the groundwater component of the remedy will be followed.
Solid Waste Regulations No. 2 Solid Waste Landfills – Vegetated Top Cover	DEM OWM-SW04-01, 2.2.12 (d) (1) and 2.2.12 (d) (2) (ii)(iii) and (v).	250-RICR-140-05-2, Section 2.1.12	Relevant and Appropriate	Contains requirements for construction and maintenance of the vegetative cover final cover system.	Remedies including cover systems will include appropriate vegetation requirements of a soil cover in compliance with these standards.

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Requirement	Original Citation	New RICR Citation (1)	Status	Synopsis of Requirement	Action to Be Taken to Attain ARAR
Solid Waste Regulations No. 2 Solid Waste Landfills – Cover Maintenance and Permeability	DEM OWM-SW04-01, 2.3.04(e), (f)	250-RICR-140-05-2, Section 2.3.4(e) & (f)	Relevant and Appropriate	Outlines the requirements for the maintenance and permeability of cover material.	The substantive requirements of this section of the regulations will be met by installing an asphalt cover that has been determined to provide an adequate barrier for specific areas to be used for parking, or a soil cover that has been determined to provide an adequate barrier for the remainder of the land within the waste management area.
Solid Waste Regulations No. 2 Solid Waste Landfills – Water Pollution	DEM OWM-SW04-01, 2.3.05	250-RICR-140-05-2, Section 2.3.5	Relevant and Appropriate	Establishes requirement for compliance boundary for pollution of ground waters or surface waters.	The substantive requirements of this section of the regulations will be met by the requirement that no contamination of groundwater be permitted outside the boundary of the waste management area. Because this remedy leaves contamination in place, sediment monitoring will be conducted to assure that no contaminants are transported to surface water/sediment beyond the boundary of the waste management area.
Solid Waste Regulations No. 2 Solid Waste Landfills – Surface Water Drainage	DEM OWM-SW04-01, 2.3.10	250-RICR-140-05-2, Section 2.3.10	Relevant and Appropriate	Contains requirements for surface water drainage.	The substantive requirements of this section of the regulations will be met through design of appropriate surface drainage considerations for the WMA cover. The cover system would be designed to prevent erosion, sedimentation, and standing water on the cover. Minimum slope requirements for solid waste landfills have been determined not relevant or appropriate for a soil cover which is not intended to reduce infiltration.
Water Pollution - Pollution Discharge Elimination Systems	RIGL 46-12, 42-17.1, 42-45	R.I.G.L. 46-12 *et seq*.; 250-RICR-150-10-1, Sections 1.16, 1.32, and 1.34	Relevant and Appropriate	Contains discharge limitations, monitoring requirements and best management practices. Substantive requirements under NPDES are written such that state and federal national recommended water quality criteria are met. Permits are required for off site discharges; RI Standards apply to POTWs. Includes storm water requirements for construction projects that disturb over one acre.	Discharge of any contaminated groundwater during soil excavation or during O&M of the remedy into Narragansett Bay will meet applicable standards. Storm water standards for construction projects over one acre will also be met.

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Water Pollution – Pretreatment Regulations	RIGL 46-12, 42-17.1, 42-45	250-RICR-150-10-2	Applicable	Rhode Island standards for discharge to POTWs.	These standards will apply if water from the remedial action such as from dewatering is discharged to a POTW.
Rules and Regulations for Dredging and the Management of Dredged Materials	DEM-OWR-DR-02-03	250-RICR-150-05-2	Applicable	Addresses dredging activities and disposal of dredge spoils.	Any dredging that is required for maintenance of the remedy must comply with the requirements of the regulations.

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