STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Northwest Region Office
PO Box 330316, Shoreline, WA 98133-9716 • 206-594-0000

STATE ENVIRONMENTAL POLICY ACT
DETERMINATION OF NONSIGNIFICANCE

Date of Issuance: October 20, 2025

Lead Agency: Department of Ecology, Toxics Cleanup Program, Northwest Region

Agency Contact: Vance Atkins, vance.atkins@ecy.wa.gov, 425-324-1438

Description of proposal:

King County Fire District 10 owns the property and currently operates its current headquarters and mechanical maintenance facilities there (Eastside Fire & Rescue Headquarters, or EF&R HQ). The project site is located at 175 Newport Way Northwest in Issaquah, Washington. The Fire District is proposing the design and construction of a remedial action that is required to be addressed through the Model Toxics Control Act (MTCA) under an Agreed Order and future Consent Decree with Ecology oversight.

The remedial action is outlined in the draft Interim Action Work Plan (dIAWP) and consists of the following components (see Figure 13 from the dIAWP):

- Excavation and in-situ stabilization of accessible soil contamination with high concentrations of PFAS above the water table to remove vadose zone sources to groundwater.
- Expansion of the Permeable Reactive Barrier to further reduce exposure risk from the soil to groundwater pathway and reduce migration of PFAS down-gradient from the AFFF Training Area.
- Installation of an impervious asphalt cap to mitigate the direct contact exposure pathway, and to reduce rainwater infiltration that could mobilize vadose zone soil contamination from soil to groundwater.
- Performance of groundwater monitoring to evaluate interim action performance and efficacy of reducing concentrations of PFAS in groundwater.

Location of proposal: See attached vicinity map (Figure 1).
175 Newport Way Northwest, Issaquah, Washington
Section 28, Township 24N, Range 06E.

Applicant/Proponent:
Eastside Fire and Rescue
Ben Lane, Fire Chief
blane@esf-r.org
425-677-3554
175 Newport Way Northwest, Issaquah, Washington 98027

City of Issaquah, Public Works Department
Julie Wartes, Senior Environmental and Regulatory Program Administrator
Juliew@issaquahwa.gov
206-945-4295
670 1st Avenue Northeast, Issaquah, Washington 98027

Determination: Ecology has determined that this proposal will not have a probable significant adverse impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21C.030(2)(c). We have reviewed the attached Environmental Checklist and the draft Interim Action Work Plan. This is available at:
https://apps.ecology.wa.gov/cleanupsearch/site/16581

This determination is based on the following findings and conclusions: The purpose of the cleanup action is to protect human health and the environment by addressing contamination in soil and groundwater. As such it is intended to significantly improve, rather than adversely impact, environmental conditions. Potential adverse impacts to the environment are associated with construction. These impacts include equipment noise and lights, construction traffic, diesel equipment emissions, etc. Standard methods will be used to reduce/mitigate these impacts.

The project will adhere to applicable local, state, and federal permit requirements.

Comment: The comment period for this DNS corresponds with the comment period on the draft Interim Action Work Plan for the EFR HQ IVES site which will end on December 22, 2025.

To submit comments on this DNS and the corresponding draft Interim Action Work Plan for the EFR HQ IVES site submit comments to: https://go.ecology.wa.gov/EFR-HQ-IVES

Responsible Official:
Kimberly Wooten
Northwest Region Section Manager
Toxics Cleanup Program
Department of Ecology
PO Box 330316
Shoreline WA 98133-9716
425-324-1658

Signature Kimberly Wooten Date October 15, 2025

This SEPA decision may be appealed in in accordance with WAC 197-11-680.

SEPA[1] Environmental Checklist

Purpose of checklist

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization, or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

Instructions for applicants

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. **You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown.** You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

The checklist questions apply to **all parts of your proposal**, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Instructions for lead agencies

Please adjust the format of this template as needed. Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

Use of checklist for nonproject proposals

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B, plus the Supplemental Sheet for Nonproject Actions (Part D). Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in "Part B: Environmental Elements" that do not contribute meaningfully to the analysis of the proposal.

[1] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/Checklist-guidance

A.Background

1. Name of proposed project, if applicable:

Eastside Fire and Rescue (EFR) Headquarters (HQ) and Issaquah Valley Elementary School (IVES) Site (Site) - Interim Action

2. Name of applicant:

EFR and the City of Issaquah (the City)

3. Address and phone number of applicant and contact person:

Applicant Contacts:

Ben Lane, Fire Chief
EFR
175 Newport Way NW
Issaquah, Washington 98027
(425) 677-3554

Julie Wartes, Senior Environmental and Regulatory Program Administrator
Public Works Department
City of Issaquah
670 1st Avenue Northeast
Issaquah, Washington 98027
(206) 945-4295

Project Consultant Contact:

Sarah Snyder, L.G.
Farallon Consulting L.L.C.
1809 7th Avenue, Suite 1111
Seattle, WA 98101
(717) 395-0268

4. Date checklist prepared:

October 13, 2025

5. Agency requesting checklist:

Washington State Department of Ecology

6. Proposed timing of schedule (including phasing, if applicable):

Spring 2026 to fall 2026. Permeable reactive barrier (PRB) injections are expected to occur in spring/early summer 2026, and vadose zone source treatment and installation of an impervious asphalt cap is expected to occur during late summer/early fall 2026.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

Additional interim actions and final cleanup action activities may occur in the future depending on the results of the proposed interim action.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

Farallon Consulting, L.L.C. (Farallon) prepared a Public Review Draft Interim Action Work Plan (IAWP) for the EFR HQ IVES Site, dated September 26, 2025. The IAWP documents the work elements necessary to complete an interim action at the Site in accordance with the requirements of Agreed Order No. DE 23520 (AO) between the Washington State Department of Ecology (Ecology), EFR, and the City of Issaquah (the City).

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

There are no known pending applications directly affecting the property covered by this proposal.

10. List any government approvals or permits that will be needed for your proposal, if known.

State of Washington:

SEPA Review and Determination
Underground Injection Control Permit

City of Issaquah:

Site Work Permit

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

Local firefighting entities historically conducted firefighting training exercises at the Site, which included lawful deployment of aqueous film-forming foam (AFFF) containing perfluorooctane sulfonate (PFOS) and additional per- and poly-fluorinated alkyl substances (PFAS). The historical training activities are considered releases to the environment under the Model Toxics Control Act (MTCA). The confirmed releases have impacted vadose zone soil at two source areas, the EFR HQ Source Area at 175 Newport Way Northwest and IVES Source Area at 555 Northwest Holly Street in Issaquah, Washington.

The confirmed releases have impacted shallow groundwater at the Source Areas. The City withdraws groundwater from production wells at locations down-gradient of the Site and a completed exposure pathway for groundwater has been confirmed.[2] Ecology believes the actions

[2] A treatment system reduces PFAS concentrations in water entering the distribution system to below drinking water standards.

required by the AO are in the public's interest. The IAWP documents the planned interim action activities at the EFR HQ Source Area.

AFFF training was performed at two locations on the EFR HQ Source Area:

- An area that currently is covered with lawn near the fire hydrant on the north-central portion (Median Strip AFFF Training Area); and
- The western gravel-surfaced area of the EFR Headquarters Source Area (Newport Way Northwest [NWN] AFFF Training Area).

AFFF training was performed at two locations on the IVES Source Area:

- An area that currently is covered with lawn on the southern area of the west playfield at IVES (West Playfield AFFF Training Area); and
- An area that currently is covered with lawn, trees, turf, and asphalt along the western side of Dodd Field (Dodd Field AFFF Training Area).

The scope of work of the interim action includes:

- Excavation and in-situ stabilization of accessible soil contamination with total PFAS concentrations exceeding 1 milligram per kilogram (mg/kg) of PFAS to remove vadose zone sources to groundwater at the NWN AFFF Training Area.
- Expansion of the PRB to further reduce exposure risk from the soil to groundwater pathway and reduce migration of PFAS down-gradient from the NWN AFFF Training Area.
- Installation of an impervious asphalt cap to mitigate the direct contact exposure pathway, and to reduce rainwater infiltration that could mobilize vadose zone soil contamination from soil to groundwater. Installation of the impervious asphalt cap includes installation of associated stormwater drainage infrastructure.
- Performing performance groundwater monitoring in accordance with the Sampling and Analysis Plan (SAP) and Quality Assurance Program Plan (QAPP) to evaluate interim action performance and efficacy reducing concentrations of PFAS in groundwater.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

The proposed interim action is at the EFR HQ Source Area at 175 Newport Way Northwest in Issaquah, Washington. A vicinity map is included on Figure 1 and a plan showing the EFR Source Area is included on Figure 2.

Section, Township, Range: SE ¼, S28, T24, R06

Parcel number: 2824069165

Legal Description:

LESS ALL OIL-CLAY C/M RGTS BEG 656.83 FT N OF S 1/4 COR TH N 164.21 FT TH E 449.31 FT TH N 15 FT TH E TO WLY MGN OF HWY TH SELY ALG SD HWY TO A PT E OF PT 30 FT S OF BEG TH W TO PT 449.31 FT E OF N & S CTR LN OF SEC TH N 30 FT TH W 449.31 FT TO BEG LESS W 449.31 FT THOF

B.Environmental Elements

1. Earth

a. General description of the site:

Circle or highlight one: Flat, rolling, hilly, steep slopes, mountainous, other:

The proposed interim action is at the EFR HQ Source Area. The EFR HQ Source Area contains the EFR HQ building, two storage buildings, asphalt-paved drive lanes and parking lots, a stormwater detention basin, a gravel lot, and vegetated areas.

b. What is the steepest slope on the site (approximate percent slope)?

The EFR HQ Source Area is flat.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them, and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.

The general types of soil found on the EFR HQ Source Area include silty sand and sand, continuous coarse sand and gravel, and continuous hard gray silt ("basement silt").

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

There are no surface indications or history of unstable soils in the immediate vicinity. The area west of the EFR HQ Source Area has a steep slope and is classified as a landslide hazard area. Although landslides onto the EFR HQ Source Area are possible, they are unlikely to affect the interim action.

e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.

A summary of the interim action elements is provided below, additional details are provided in the IAWP. The Public Review Draft IAWP and Engineering Design Report were prepared in coordination with Ecology and included 30% design. Ecology approved submittal of the SEPA Checklist at the Public Review Draft IAWP. Vadose zone source treatment quantities are summarized in Table 1 and PRB design parameters are summarized in Table 2. The interim action extents are shown on Figure 3 and the PRB segments are shown on Figure 4.

Expansion of Permeable Reactive Barrier

PRB Design Assumptions

The preliminary design for the full-scale PRB was developed by Farallon in consultation with Regenesis based on the design parameters evaluated for and the results from the pilot test PRB (e.g., Darcy groundwater flow velocity, maximum PFOS mass flux estimates, groundwater flow direction(s), hydraulic gradient, and treatment effectiveness). An approximately 272.5-foot-long, 24- to 26-foot-deep, and 13-foot-wide PRB will be installed using injections of a colloidal activated carbon (CAC) reagent to immobilize PFAS and reduce migration in groundwater from the NWN AFFF Training Area.

The PRB expansion will include approximately 112.5 feet (Segments A and B) and 100 feet (Segments D, E, and F) of new wall segments, respectively, along the northern and eastern down-gradient edges of the NWN AFFF Training Area, and 60 feet (Segment C) of additional injections on the down-gradient side (east) of the pilot test PRB (Figure 4). New PRB segments will include a staggered double row of injections spaced 5 feet apart. A single row of injections spaced 5 feet apart will be added along the pilot test PRB. A total of 97 injection locations will be used for the PRB expansion.

The estimated PRB treatment depth interval will range from approximately 6 to 26 feet below ground surface (bgs) but will vary in starting depth and thickness across the PRB based on typical depths to groundwater and the basement silt (Figure 4). In contrast with the pilot test PRB injection interval of 14 to 25 feet bgs, the PRB reagent injections will start at shallower depths (up to 6 feet bgs), to accommodate seasonal variations in the groundwater table. It is assumed that a higher volume of injectate solution (approximately 55 gallons) will be required in vadose (unsaturated) zone conditions than in the saturated zone (approximately 40 gallons). Injection volumes assume treatment of achieving approximately 100 percent of the effective porosity in the vadose zone soil and approximately 70 percent of the effective porosity in the saturated zone soil. The target radius of influence for injections is approximately 3.3 feet, which is based on achieving 30 percent overlap between injection locations, for a design PRB width of 13 feet.

The remediation contractor and/or reagent manufacturer, as applicable, will determine an appropriate CAC reagent injection concentration to reduce dissolved-phase concentrations for individual PFAS constituents to concentrations less than their applicable MTCA Method B cleanup levels for potable groundwater.

PRB Installation

EFR personnel will be consulted, and public and private utility locates conducted to assess whether underground utilities may be encountered in the interim action areas. An air knife or other clearance method (e.g., hand augering) will be used to clear the upper 5 feet of injection locations where underground utilities are suspected. Otherwise, it is assumed that air knifing will not be conducted at each injection location and locations will be drilled directly from the surface if no utilities are suspected.

A retractable screen type tooling with a 2- to 3-foot screened section advanced by a direct-push drill rig will be used for injection activities. The application will be completed at flow rates of approximately 2 to 5 gallons per minute (per injection point) and at pressures typically ranging from 20 to 60 pounds per square inch; however, some areas of the PRB may require up to 100 pounds per square inch to initiate flow. A multi-point injection process will be implemented to reduce the number of field days; and a distance of approximately 20 feet or greater will be maintained at all times between any actively pumping injection points.

The injection program will consist of injecting a CAC reagent at 85 injection points arranged in two rows, with 5-foot spacing between points in each row, and 5-foot spacing between the two rows. The 12 additional injections on the down-gradient side of the pilot test PRB will be arranged in a single row. The injection treatment interval will target depths ranging between 6 and 26 feet bgs, based on segment of the PRB (Table 2), and be completed in 2- to 3-foot intervals using a retractable screen starting from total depth to 6 feet bgs.

Placement of the CAC reagent will be verified through confirmation coring and monitoring in temporary piezometers, borings, and proximate existing and/or new shallow monitoring wells. Approximately three soil confirmation borings will be advanced and three temporary piezometers will be installed for this purpose.

Vadose Zone Source Treatment

Source treatment activities, including in-situ stabilization and excavation of PFAS-contaminated soils and containment with an asphalt cap, will be conducted at the NWN AFFF Training Area in the EFR HQ Source Area. In-situ stabilization and excavation will be conducted where calculated total (summed) concentrations of PFAS constituents with applicable screening levels are above 1 mg/kg in soil within 13 feet of ground surface. Interim action source treatment activities will be conducted a minimum of 5 feet from existing structures. Proposed extents of the in-situ stabilization and excavation areas from 0 to 5 feet bgs, 5 to 10 feet bgs, and 10 to 13 feet bgs.

Excavation of untreated PFAS-contaminated soil for off-property disposal will be conducted in the NWN AFFF Training Area to account for potential swelling of the stabilized soil following treatment, backfilling, and compaction and to facilitate grading and placement of the asphalt cap and installation of stormwater management infrastructure (e.g., catch basins, underground storage vault, and drainage piping). Untreated soil from the areas identified with total PFAS concentrations exceeding 1 mg/kg will be excavated, stockpiled temporarily, and transported off-property for disposal at a Subtitle C landfill. Remaining soil in those extents will be treated via in-situ stabilization, and backfilled and compacted into the excavation extents. The estimated depth, area, in-place (bank) volume, and mass of soil for in-situ stabilization and excavation for off-property disposal in these areas are summarized in Table 1.

Several stormwater management features will be located within the extents of PFAS-contaminated soils at concentrations exceeding 1 mg/kg. Excavation of the soil from these areas for off-property disposal will maximize treatment of soil with total PFAS concentrations

exceeding 1 mg/kg. Remaining soil with total PFAS concentrations exceeding 1 mg/kg in these areas will be treated via in-situ stabilization.

The estimated soil volumes in the treatment area with total PFAS concentrations exceeding 1 mg/kg assume a 5-foot vertical cut along the excavation perimeter and then a 1-to-1 slope to the base of the excavation at 5, 10, or 13 feet bgs as applicable in the treatment area. A geotechnical engineering field representative will be responsible for evaluating and determining appropriate measures to maintain building integrity and excavation sidewall stability during excavation and in-situ stabilization activities, as necessary.

In-situ stabilization of PFAS-contaminated soil will be conducted using CAC-based products mechanically mixed into soil to achieve a minimum of 95 percent reduction in leachability of PFAS constituents from soil. The preliminary design for the vadose zone source treatment via in-situ stabilization was developed by Farallon in consultation with Regenesis. SourceStop, a CAC-based treatment product developed by Regenesis, or an equivalent product, will be used as the stabilization reagent. A bench scale test will be conducted using property soils to evaluate the CAC reagent dose rate and percent reduction in leachability of PFAS constituents from soil.

SourceStop, or equivalent, will be mechanically broadcast and distributed into the soil using either bucket mixing or auger-type mixing methods at a dosage rate estimated to be between 0.5 and 1 percent by weight. During the mixing process and when in contact with water, SourceStop is designed to disintegrate and release the CAC to coat soil with a thin layer of activated carbon. SourceStop particles are designed to absorb PFAS contamination and reduce PFAS mass flux below the soil and into groundwater.

Source Treatment Implementation

Stabilization of PFAS-contaminated soil will include mechanically mixing a CAC-based product into soil within the treatment area. The Contractor will excavate to the target depth (e.g., 5, 10, or 13 feet bgs) using standard earth moving equipment, which may include a track hoe and backhoe, and temporarily stockpile excavated soil adjacent to the excavation or in another designated location. Excavations deeper than 4 feet bgs will include a 1:1 slope back.

Once the engineer has confirmed the target depth has been achieved, the Contractor will follow protocols provided by the CAC reagent manufacturer for applying the stabilization reagent and mixing in soil to treat the remaining soil within the treatment areas (up to approximately 1,875 cubic yards or 3,195 tons, at a 5 percent swelling factor; Table 1). These steps are anticipated to include mechanically broadcasting the stabilization reagent (in solid form) at the previously determined dose rate into the soil and distributing using either bucket mixing or auger-type mixing methods. Following treatment, the stabilized soil will be placed back into the excavation area and compacted in accordance with design specifications.

Backfilling and Compaction

The treatment areas will be backfilled once distribution of the stabilizing reagent is complete, in accordance with the design specifications, and untreated soil to provide for swelling of the

stabilized soil and depth for asphalt cap installation has been removed for off-property disposal. Treated soil (by in-situ stabilization) and imported structural backfill material (as required) will be placed in uniform horizonal layers of loose lift thickness not exceeding 12 inches to bring the treatment areas to finished site grade. All materials will meet 95 percent compaction as specified by ASTM International (ASTM) Method D1557 Modified. Excavated soil not treated by in-situ stabilization (swell material or to facilitate asphalt cap and stormwater infrastructure installation) will be transported off-property for disposal at a Subtitle C facility and not be reused as excavation backfill.

The Contractor will perform compaction testing at a frequency of one test for every 500 square feet for every 2 feet of fill. Compaction testing of the lower lifts (bottom of the treatment area) may not be feasible due to safety concerns. The Contractor is to use best judgement for when it is safe for personnel to test compaction lifts. Compaction testing documentation will be provided to Ecology as part of the construction record.

Structural backfill used for the excavation will consist of imported, well-graded, granular material such as Washington State Department of Transportation's (WSDOT) Gravel Borrow (WSDOT Standards and Specifications, 2024, 9-03.14(1)), or an approved equivalent. Imported crushed surface top course for restoring disturbed gravel pavement to match existing grade will meet WSDOT Specifications, 2025, Section 9-03.9[3]).

Clean structural fill will be used as backfill.

Stormwater Management

Management of stormwater runoff from the NWN AFFF Training Area asphalt cap will include installation of additional stormwater management infrastructure, including stormwater catch basins, subsurface vault, and associated drainage piping, which will connect to the existing stormwater system at the EFR HQ Source Area. Installation of the new stormwater management infrastructure will be conducted concurrently with in-situ soil stabilization and excavation activities in the NWN AFFF Training Area and prior to installation of the asphalt cap. Trenching through existing pavement areas east of the NWN AFFF Training Area will be required to install and connect the new drainage piping to existing piping on the west side of the EFR HQ Building, which drains to the stormwater detention basin.

Installation of the stormwater infrastructure will require excavation of untreated soil for off-property disposal, and potential reuse of untreated soil as pipe bedding material. Within the NWN AFFF Training Area, soil will be excavated for off-property disposal to a Subtitle C landfill. The geotechnical evaluation will include an assessment of whether the native silty sand and sandy soils can be used for backfilling the piping trenches. However, soil generated from trenches outside the NWN AFFF Training Area to install the new drainage piping to the existing catch basin is anticipated to require off-property disposal at either a Subtitle C or Subtitle D landfill, based on PFAS testing results in those areas.

Asphalt Pavement Cap Installation

An impervious asphalt cap will be constructed in the NWN AFFF Training Area (Figure 3) in accordance with the design specifications, following completion of soil stabilization, excavation, stormwater infrastructure installation, and backfilling and compaction activities. The approximately 26,000-square-foot asphalt cap will be constructed with, from top to bottom, 6 inches of hot-mix asphalt (HMA), 4 inches of mineral aggregate Type 2 base course, and a woven geotextile for separation between the cap and underlying treated and untreated soil. To facilitate placement of the cap, it is anticipated that approximately 805 cubic yards of soil will be excavated from the NWN AFFF Training Area for off-property disposal at a Subtitle C landfill. This volume of soil accounts for 26,000 square feet to a depth of approximately 10 inches. Further design details for the asphalt cap will be included with the 60 percent engineering plans and specifications design submittal.

f. Could erosion occur because of clearing, construction, or use? If so, generally describe.

No; erosion will not occur because of clearing, construction, or use. During excavation activities, a temporary erosion and sediment control plan and best management practices for erosion control will be implemented.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

Approximately 90 percent of the EFR HQ Source Area will be covered with impervious surfaces after project construction.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any.

To combat temporary construction impacts, a temporary erosion and sediment control plan and best management practices for erosion control will be implemented. Stockpiles will be established and maintained in accordance with all federal, state, and local erosion control requirements.

2. Air

a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.

Equipment required on-site for construction will include land-based excavators, dump trucks, drill rigs, and air knife/vacuum trucks. Use of this construction equipment will result in exhaust and dust emissions. Elevated emissions from construction equipment will occur for a short duration and be minor and temporary in nature. No emissions to air are anticipated as a result of the completed project.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

Off-site emissions may include normal vehicular traffic along the roadways adjacent to the EFR HQ Source Area; however, this is not expected to affect the proposed interim action.

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

This proposed interim action will not result in an increase in emissions aside from the use of construction equipment. If construction activities produce visible dust, the contractor will apply water to surface materials to control fugitive dust emissions. All construction operations will be temporary and minimal.

3. Water

a. Surface:

1. Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

No, there are no surface water bodies on or in the immediate vicinity of the EFR HQ Source Area.

2. Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

This is not applicable since the proposed interim action is not near any water bodies.

3. Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

This is not applicable since the proposed interim action is not near any water bodies.

4. Will the proposal require surface water withdrawals or diversions? Give a general description, purpose, and approximate quantities if known.

No; the proposed interim action will not require surface water withdrawals or diversions.

5. Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

No, the proposed interim action does not lie within a 100-year floodplain.

6. Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

The proposed interim action does not involve any discharge of waste materials to surface waters.

b. Ground:

1. Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give a general description, purpose, and approximate quantities if known.

No, groundwater will not be withdrawn as part of the proposed interim action. The vadose zone source treatment will occur during late summer/early fall when the groundwater levels are typically lower. Soil excavation will stop once the water table is reached.

2. **Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (domestic sewage; industrial, containing the following chemicals…; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.**

No waste material will be discharged into the ground from septic tanks or other sources.

c. Water Runoff (including stormwater):

1. **Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.**

The closest surface water body to the EFR HQ Source Area is the Main Fork of Issaquah Creek located approximately 500 feet west of the EFR HQ Source Area. The ground surface of the NWN AFFF Training Area is currently pervious, allowing infiltration of stormwater. The interim action includes installation of additional stormwater infrastructure related to the installation of an asphalt cap at the NWN AFFF Training Area. Infiltration of stormwater through the current pervious surface prevents the runoff of stormwater from the EFR HQ Source Area and stormwater infrastructure will be installed as part of the asphalt cap installation. Stormwater from impervious areas of the EFR HQ Source Area flows to the stormwater detention basin. The stormwater infrastructure will be designed by a civil engineer to meet applicable stormwater requirements.

2. **Could waste materials enter ground or surface waters? If so, generally describe.**

Measures will be taken to ensure that waste materials do not enter ground or surface waters. Excavated soil will be directly loaded either into trucks or roll-off containers for off-property disposal. If needed, soil may be temporarily stockpiled on top of plastic sheeting and covered with plastic sheeting when not in use and in compliance with local requirements. Soil cuttings and wastewater will be containerized in WSDOT-approved steel drums. Drums will be removed for off-site disposal in accordance with local, state, and federal regulations. Any disposable consumables will be disposed of as municipal solid waste.

3. **Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.**

The proposed interim action includes installation of an impervious asphalt cap and associated stormwater infrastructure. Stormwater infrastructure will include stormwater catch basins, subsurface vault, and associated drainage piping, which will connect to the existing stormwater system at the EFR HQ Source Area.

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:

Measures will be taken to reduce or control surface, ground, and runoff water. All waste material (soil and wastewater) will be properly stored and removed for off-site disposal. Additionally, the

vadose zone source treatment will occur during late summer/early fall when the groundwater levels are typically lower, and soil excavation will stop once the water table is reached.

4. Plants

a. Check the types of vegetation found on the site:

☐ **deciduous tree: alder, maple, aspen, other**

☒ **evergreen tree: fir, cedar, pine, other**

☒ **shrubs**

☒ **grass**

☐ **pasture**

☐ **crop or grain**

☐ **orchards, vineyards, or other permanent crops.**

☐ **wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other**

☐ **water plants: water lily, eelgrass, milfoil, other**

☐ **other types of vegetation**

Vegetation at the EFR HQ Source Area is found throughout the unpaved portions of the parking lot and bordering the parking lot. Vegetation is predominantly landscaped grasses, shrubs, and evergreen trees.

b. What kind and amount of vegetation will be removed or altered?

The only vegetation that will be removed or altered would be during construction activities, which will be temporary and minimal. No trees are planned to be removed as part of the interim action.

c. List threatened and endangered species known to be on or near the site.

There are no threatened or endangered plant species on or near the EFR HQ Source Area. The Washington Department of Natural Resources (DNR) Natural Heritage Program (NHP) does not identify any threatened or endangered plant species in the vicinity of the EFR HQ Source Area. State Parks NHP data was accessed July 16, 2025.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any.

There are no proposed landscaping measures for this proposed interim action. All contaminated waste materials will be properly stored and disposed of offsite to ensure vegetation is preserved.

e. List all noxious weeds and invasive species known to be on or near the site.

There are no noxious weeds or invasive plant species on or near the EFR HQ Source Area.

5. Animals

a. List any birds and other animals that have been observed on or near the site or are known to be on or near the site.

Examples include:

- **Birds: hawk, heron, eagle, songbirds, other:**
- **Mammals: deer, bear, elk, beaver, other:**
- **Fish: bass, salmon, trout, herring, shellfish, other:**

b. List any threatened and endangered species known to be on or near the site.

Federally listed endangered species that could occur on or in the vicinity of the EFR HQ Source Area include:

- Marbled murrelet (*Brachyramphus marmoratus*) – threatened; and
- Yellow-billed cuckoo (*Coccyzus americanus*) – threatened

These species are not expected to be affected by any proposed interim action elements.

State-listed species that may be found within the vicinity of the EFR HQ Source Area include:

- Townsend's big-eared bat (*Corynorhinus townsendii*) – Candidate species, sensitive, species of greatest conservation need;
- Big brown bat (*Eptesicus fuscus*) – Sensitive;
- Little brown bat (*Myotis lucifugus*) – Sensitive; and
- Yuma myotis (*Myotis yumanensis*) – Sensitive.

No suitable habitat for these species occurs in the vicinity of the EFR HQ Source Area, and thus they are not expected to be in or near the area. These habitats and species are not expected to be affected by any proposed interim action elements.

c. Is the site part of a migration route? If so, explain.

The EFR HQ Source Area is part of the Pacific Flyway for bird migration. The proposed interim action is not expected to impact the Pacific Flyway.

d. Proposed measures to preserve or enhance wildlife, if any.

Measures will be taken to preserve and enhance wildlife by ensuring that any contaminated waste materials are properly disposed of. Excavated soil will be directly loaded either into trucks or roll-off containers for off-property disposal. If needed, soil may be temporarily stockpiled on top of plastic sheeting and covered with plastic sheeting when not in use. Soil cuttings and wastewater will be containerized in WSDOT-approved steel drums. Drums will be removed for off-site disposal in accordance with local, state, and federal regulations. Any disposable consumables will be disposed of as municipal solid waste.

e. List any invasive animal species known to be on or near the site.

There are no known invasive animal species on or near the EFR HQ Source Area.

6. Energy and natural resources

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

The energy needs of the completed proposed interim action will not change.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

No, the proposed interim action will not affect potential use of solar energy by adjacent properties.

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any.

There are no energy conservation features included in the plans of this proposed interim action.

7. Environmental health

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur because of this proposal? If so, describe.

The interim action includes in-situ stabilization of contaminated with PFAS, and will include temporary storage and handling of CAC that will be used for treating PFAS contamination. Measures will be taken to minimize the risk of exposure, such as always wearing personal protective equipment (PPE) and proper handling and disposal of contaminated waste.

1. Describe any known or possible contamination at the site from present or past uses.

There are known contaminants at the Site from past uses. Firefighting entities historically conducted firefighting training exercises that included the lawful deployment of AFFF containing PFOS and PFAS. This training has released these contaminants into the vadose zone soil and groundwater at the EFR HQ Source Area. Elimination or treatment of the PFAS source mass at the EFR HQ Source Area would substantially reduce the contaminant mass of PFAS leaching from vadose zone soil to groundwater at the NWN AFFF Training Area, which is the largest identified mass of treatable PFAS in vadose zone soil and groundwater at the Site.

2. Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.

Existing hazardous conditions include contaminated soil and groundwater at the EFR HQ Source Area. The purpose of the proposed interim action is to clean up the contamination at the NWN AFFF Training Area. Measures will be taken to ensure that PPE is worn, and all waste is handled and disposed of properly.

3. **Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.**

PFAS-contaminated soil will be temporarily stored, and CAC will be used to treat PFAS contamination.

4. **Describe special emergency services that might be required.**

The proposed interim action is not anticipated to require special emergency services. If necessary, emergency services that might be required to respond or assist include the Issaquah police department, EFR, poison control center, national response center, utility notification center, and Ecology spill reporting.

5. **Proposed measures to reduce or control environmental health hazards, if any.**

Measures will be taken to reduce environmental health hazards. PPE will be worn at all times and any equipment that may be exposed to contaminated materials will be decontaminated. If construction activities produce visible dust, water will be applied to surface materials to control fugitive dust emissions. Excavated soil will be directly loaded either into trucks or roll-off containers for off-property disposal. If needed, soil may be temporarily stockpiled on top of plastic sheeting and covered with plastic sheeting when not in use. Soil cuttings and wastewater will be containerized in WSDOT-approved steel drums. The drums will be appropriately labeled, sealed, and stored on-site pending completion of waste profiling for disposal. Upon completion, the drums will be removed and disposed of offsite in accordance with local, state, and federal regulations. Additionally, a site-specific Health and Safety Plan (HASP) will be prepared for the EFR Source Area.

b. Noise

1. **What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?**

Noise is not expected to affect the proposed interim action.

2. **What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site)?**

Short-term noise associated with the proposed interim action includes construction equipment (land-based excavators, dump trucks, and air knife/vacuum trucks) and construction operations. Construction noise will primarily occur during the daytime hours and will be temporary and minimal. No long-term noise will result from the proposed interim action.

3. **Proposed measures to reduce or control noise impacts, if any:**

Noise will not be at levels that require noise control measures.

8. Land and shoreline use

a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.

The EFR HQ Source Area is currently used as an office and vehicle maintenance facility for EFR. The EFR HQ Source Area consists of the EFR HQ building, two storage buildings, asphalt-paved drive lanes and parking lots, a stormwater detention basin, a gravel lot, and vegetated areas. Adjacent properties to the north, east, and south are primarily residential. The parcel to the west is an undeveloped steep slope and open space preservation that separates the EFR HQ Source Area from single family home residential developments. The proposed interim action intends to treat the PFAS concentrations found in vadose zone soil and shallow groundwater at the NWN AFFF Training Area and will not affect current land uses on nearby or adjacent properties.

b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses because of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?

No, the EFR HQ Source Area has not been used as working farmlands or working forest lands.

1. **Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how?**

No, the proposed interim action will not affect or be affected by working farm or forest land.

c. Describe any structures on the site.

Structures on the EFR HQ Source Area include the existing EFR HQ building and two storage buildings.

d. Will any structures be demolished? If so, what?

No existing structures will be demolished.

e. What is the current zoning classification of the site?

The current zoning classification is Community Facilities – Facilities.

f. What is the current comprehensive plan designation of the site?

The comprehensive plan designation of the EFR HQ Source Area is Incorporated City.

g. If applicable, what is the current shoreline master program designation of the site?

This is not applicable.

h. Has any part of the site been classified as a critical area by the city or county? If so, specify.

No part of the EFR HQ Source Area has been classified as a critical area.

i. Approximately how many people would reside or work in the completed project?

No one will reside in the area of the proposed interim action. EFR staff will continue to maintain operations at the EFR HQ Source Area. Approximately 35 staff work at the EFR HQ Source Area.

j. Approximately how many people would the completed project displace?

No one will be displaced as a result of the proposed interim action.

k. Proposed measures to avoid or reduce displacement impacts, if any.

No one will be displaced by the proposed interim action; therefore, this is not applicable.

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any.

The proposed interim action is in accordance with the requirements of the AO between Ecology, EFR, and the City. The proposed interim action will be compatible with existing and projected land uses and plans.

m. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any:

The proposed interim action will not have any impacts on agricultural or forest lands.

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

This is not applicable to the proposed interim action.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

This is not applicable to the proposed interim action.

c. Proposed measures to reduce or control housing impacts, if any:

This is not applicable to the proposed interim action.

10. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

There are no proposed structures being built. This is not applicable.

b. What views in the immediate vicinity would be altered or obstructed?

No views will be altered or obstructed from the proposed interim action. This is not applicable.

c. Proposed measures to reduce or control aesthetic impacts, if any:

There are no anticipated impacts to aesthetics, so there are no proposed measures to reduce or control aesthetics.

11. Light and glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

No long-term light or glare will be produced by the proposed interim action. If operations occur at night, lighting of the construction area will be necessary.

b. Could light or glare from the finished project be a safety hazard or interfere with views?

There will be no light or glare resulting from the completed proposed interim action.

c. What existing off-site sources of light or glare may affect your proposal?

No off-site sources of light will affect the proposed interim action.

d. Proposed measures to reduce or control light and glare impacts, if any:

There are no anticipated impacts of light and glare, so there are no proposed measures to reduce or control light and glare.

12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity?

There are no designated or informal recreational opportunities in the immediate vicinity. The EFR HQ Source Area is surrounded by residential properties.

b. Would the proposed project displace any existing recreational uses? If so, describe.

No, the proposed interim action will not displace any existing recreational uses. There are no recreational uses near the proposed interim action, therefore this is not applicable.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

There are no anticipated impacts to recreation, so there are no proposed measures to reduce or control recreation.

13. Historic and cultural preservation

a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers? If so, specifically describe.

No historic buildings, structures, or sites located at the EFR HQ Source Area are over 45 years old. Fire District 10 built the existing EFR HQ building on the EFR HQ Source Area in 1982.

b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.

No, there is no evidence of any Indian, historic use, or occupation on or near the EFR HQ Source Area. A Cultural Resources Review is being performed for the interim action.

c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.

The EFR HQ Source Area is not on or near areas of cultural importance. This is not applicable.

d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.

The EFR HQ Source Area is not on or near areas of cultural importance. If any cultural resources are discovered during construction activities, work will be stopped, the discovery will be protected, and the appropriate contacts will be informed, as outlined in the Inadvertent Discovery Plan (IDP).

14. Transportation

a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.

The EFR HQ Source Area is served by Newport Way Northwest, which is accessible from I-90 and 17th Avenue Northwest. The proposed interim action will not alter existing access to the EFR HQ Source Area.

b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?

The EFR HQ Source Area is not currently served by public transit. The nearest transit stop (bus) is approximately 0.5 mile away.

c. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle, or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).

The proposed interim action will not require any new or improvements to roads, streets, etc.

d. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

The proposed interim action will not be conducted in the immediate vicinity of water, rail, or air transportation.

e. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates?

Any vehicular trips would be due to the proposed interim action personnel entering and leaving the EFR HQ Source Area, or trucks transporting materials offsite. All vehicular traffic will be temporary and minimal during construction operations.

f. Will the proposal interfere with, affect, or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.

No, the proposed interim action will not interfere with or be affected by the movement of agricultural and forest products.

g. Proposed measures to reduce or control transportation impacts, if any:

There are no anticipated impacts to transportation. All vehicular traffic entering and leaving the EFR HQ Source Area will be minimal and temporary. All work on the EFR HQ Source Area will be conducted in areas in or near parking lots and private roadways/lanes. A truck route will be developed and used for trucking during the interim action. Traffic control/warning devices will be placed around the work area to prevent interface between pedestrian and automotive traffic and workers and equipment.

15. Public services

a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe.

No, the proposed interim action will not result in an increased need for public services.

b. Proposed measures to reduce or control direct impacts on public services, if any.

This is not applicable to the proposed interim action.

16. Utilities

a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other:

The EFR HQ Source Area has electricity, water, refuse, telephone, and sanitary sewer.

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

No utilities are proposed for the proposed interim action, with exception to the stormwater infrastructure that will be connected to the existing stormwater system at the EFR HQ Source Area.

C. Signature

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

X 

Type name of signee: Ben Lane

Position and agency/organization: Fire Chief, Eastside Fire and Rescue

Date submitted:

D. Supplemental sheet for nonproject actions

Do not use this section for project actions.

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment.

When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

1. **How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?**

    - **Proposed measures to avoid or reduce such increases are:**

2. **How would the proposal be likely to affect plants, animals, fish, or marine life?**

    - **Proposed measures to protect or conserve plants, animals, fish, or marine life are:**

3. **How would the proposal be likely to deplete energy or natural resources?**

    - **Proposed measures to protect or conserve energy and natural resources are:**

4. **How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection, such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?**

    - **Proposed measures to protect such resources or to avoid or reduce impacts are:**

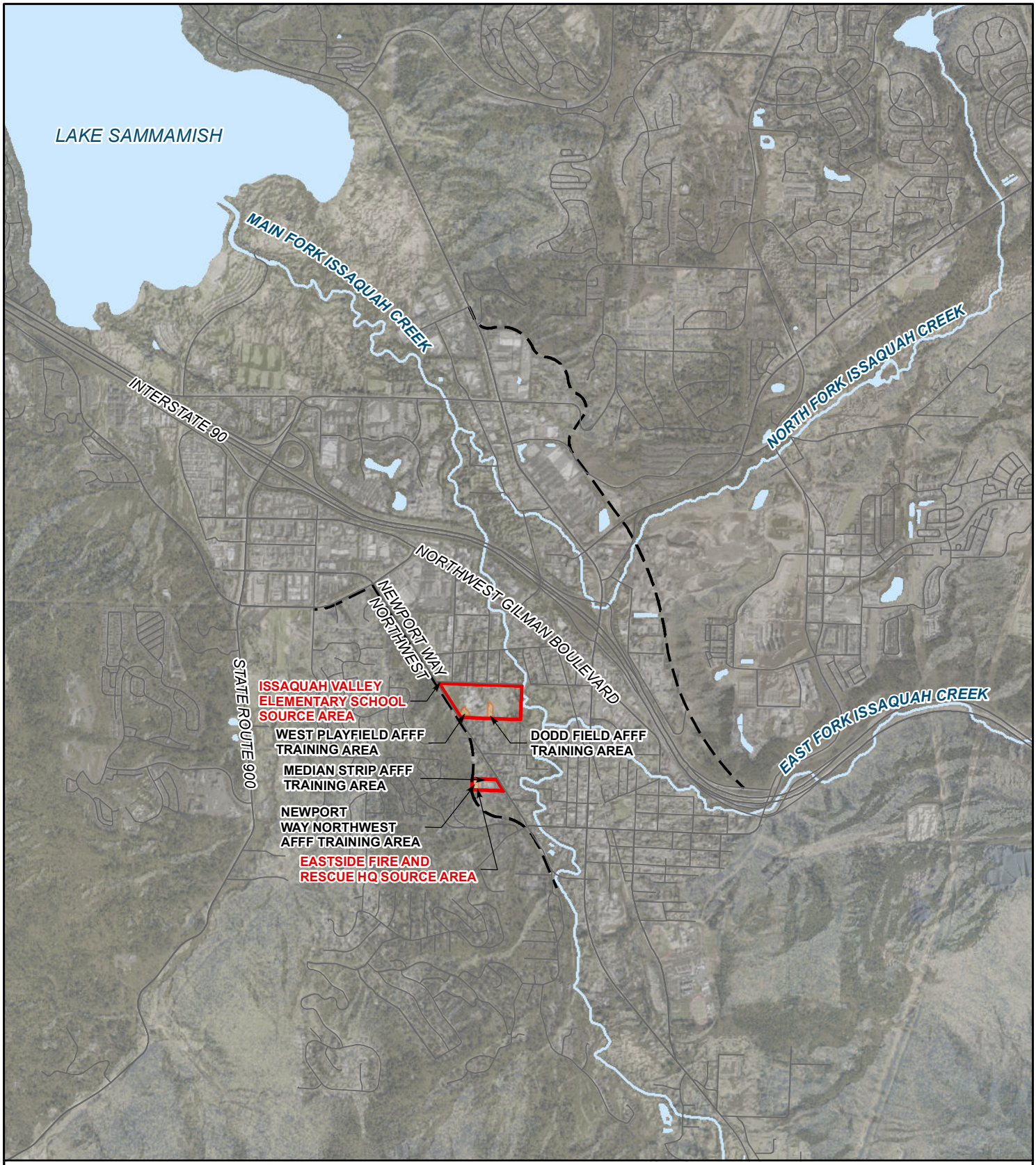
5. **How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?**

    - **Proposed measures to avoid or reduce shoreline and land use impacts are:**

6. **How would the proposal be likely to increase demands on transportation or public services and utilities?**

    - **Proposed measures to reduce or respond to such demand(s) are:**

7. **Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.**



LEGEND

- CREEK
- LOWER ISSAQUAH VALLEY
- AQUEOUS FIREFIGHTING FOAM (AFFF) TRAINING AREA
- SOURCE AREA

0 2,500

SCALE IN FEET

N

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FIGURE 1

LOWER ISSAQUAH VALLEY VICINITY MAP
EFR HQ IVES SITE
175 NEWPORT WAY NORTHWEST AND
555 NORTHWEST HOLLY STREET
ISSAQUAH, WASHINGTON

FARALLON PN: 1754-009

Drawn By: lmurock | Checked By: SS | Date: 5/29/2025 | Disc Reference:

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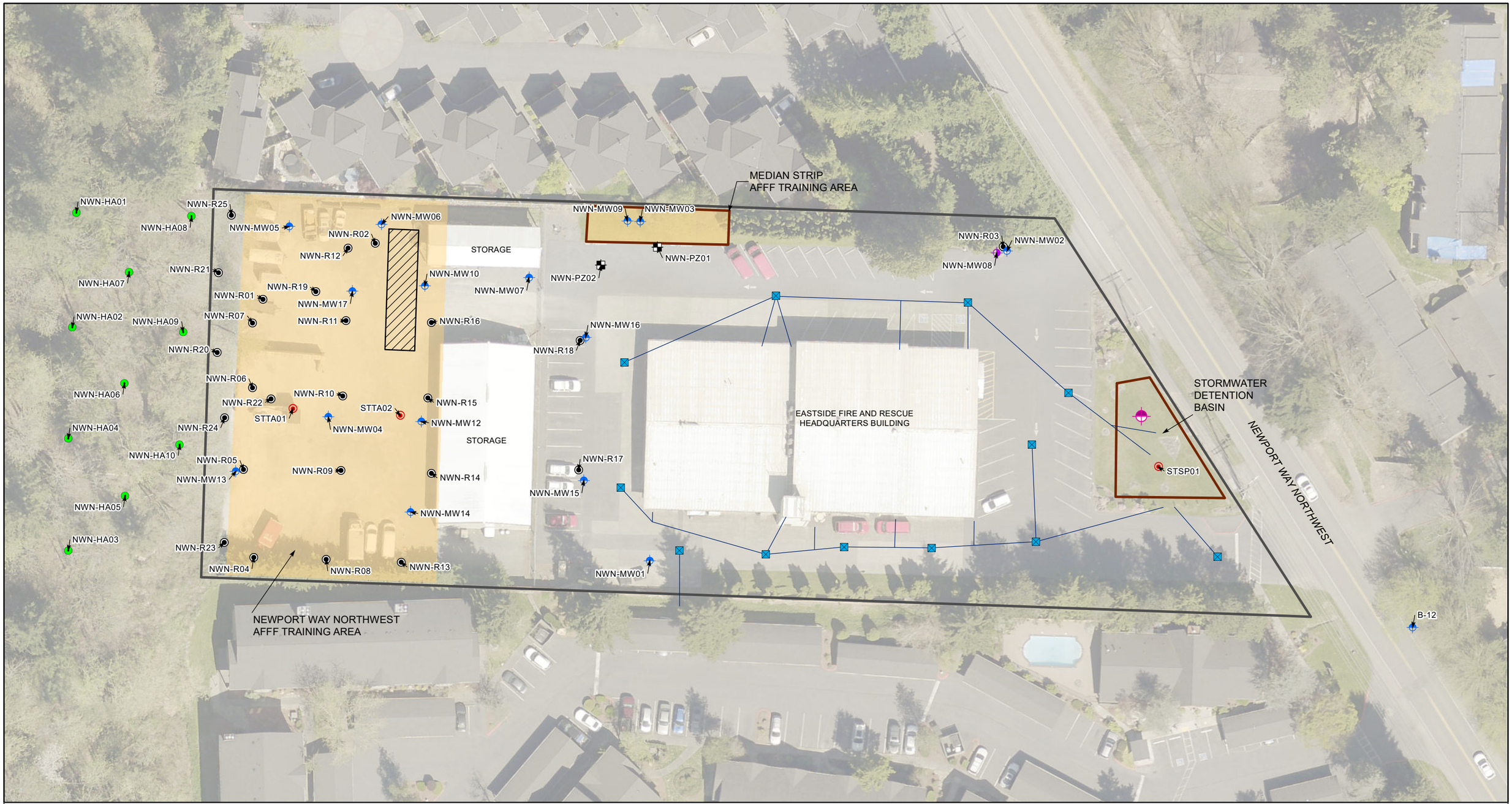

LEGEND

- PROPOSED SHALLOW MONITORING WELL
- HAND AUGER LOCATION
- BORING
- GEOSYNTEC SAMPLE
- SHALLOW MONITORING WELL
- INTERMEDIATE MONITORING WELL
- PIEZOMETER
- CATCH BASIN
- STORMWATER LINE
- PROPERTY BOUNDARY
- MULTI-INCREMENTAL SAMPLING DECISION UNIT
- AQUEOUS FIREFIGHTING FOAM (AFFF) TRAINING AREA
- PILOT TEST PERMEABLE REACTIVE BARRIER

EFR HQ IVES = EASTSIDE FIRE & RESCUE HEADQUARTERS AND ISSAQUAH VALLEY ELEMENTARY SCHOOL

0 50
SCALE IN FEET

N

NOTES:
1. ALL LOCATIONS ARE APPROXIMATE.
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FIGURE 2

EFR SOURCE AREA PLAN
EFR HQ IVES SITE
175 NEWPORT WAY NORTHWEST AND
555 NORTHWEST HOLLY STREET
ISSAQUAH, WASHINGTON

FARALLON PN: 1754-009

Drawn By: lmurock | Checked By: SS | Date: 3/20/2025

Disc Reference:
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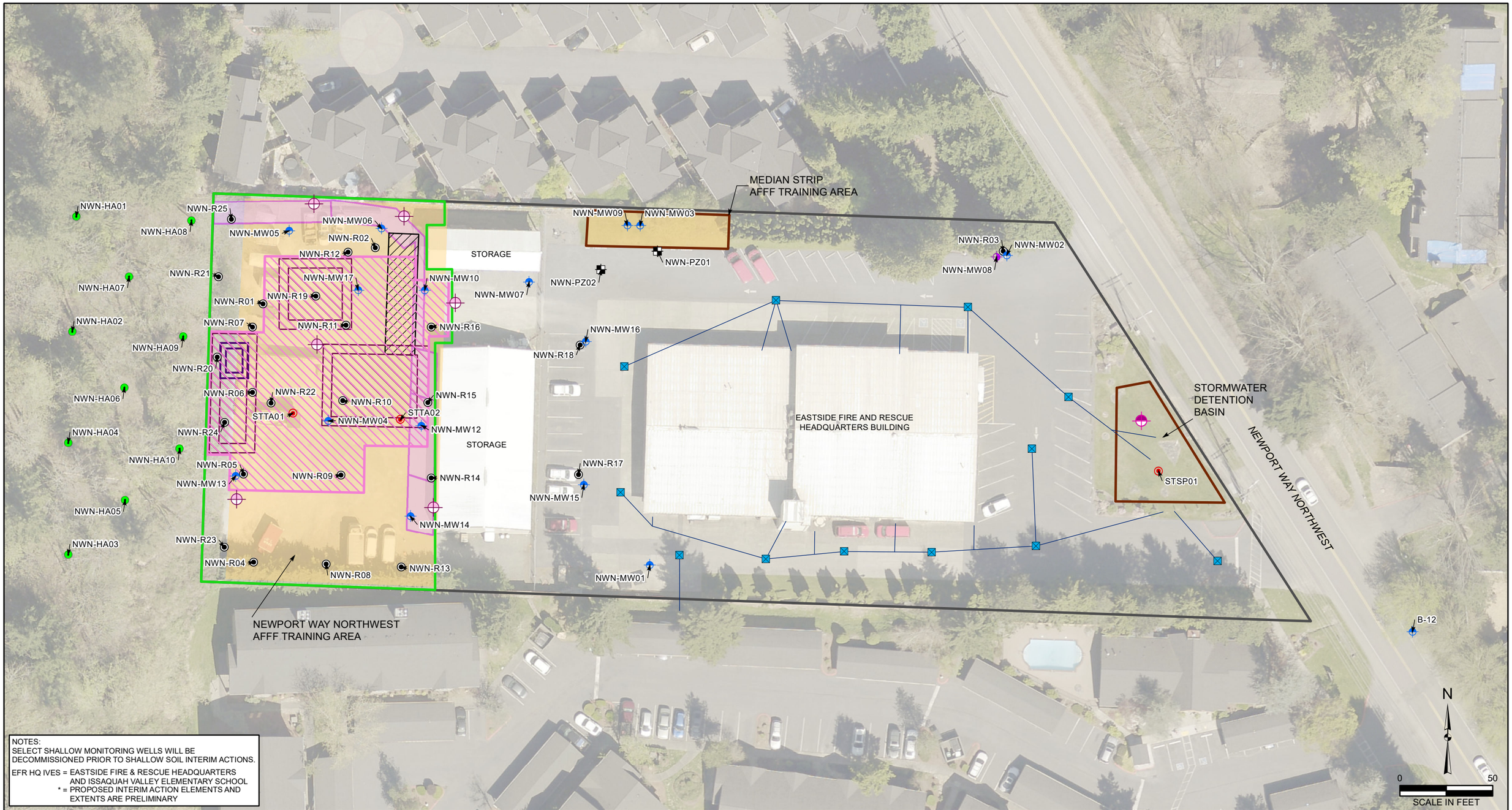

NOTES:
SELECT SHALLOW MONITORING WELLS WILL BE DECOMMISSIONED PRIOR TO SHALLOW SOIL INTERIM ACTIONS.

EFR HQ IVES = EASTSIDE FIRE & RESCUE HEADQUARTERS AND ISSAQUAH VALLEY ELEMENTARY SCHOOL
* = PROPOSED INTERIM ACTION ELEMENTS AND EXTENTS ARE PRELIMINARY

LEGEND

- PROPOSED SHALLOW MONITORING WELL (REMEDIAL INVESTIGATION)
- PROPOSED SHALLOW COMPLIANCE MONITORING WELL
- HAND AUGER LOCATION
- BORING
- GEOSYNTEC SAMPLE
- SHALLOW MONITORING WELL
- INTERMEDIATE MONITORING WELL
- PIEZOMETER
- CATCH BASIN
- STORMWATER LINE
- PROPOSED AREA TO RESTORE WITH ASPHALT PAVEMENT CAP
- PROPOSED SOIL EXCAVATION AND STABILIZATION EXTENT (0 TO 5 FEET BELOW GROUND SURFACE)
- PROPOSED VADOSE ZONE SOIL TREATMENT AREA (5 TO 10 FEET BELOW GROUND SURFACE) WITH 1:1 SLOPE BACK
- PROPOSED VADOSE ZONE SOIL TREATMENT AREA (10 TO 13 FEET BELOW GROUND SURFACE) WITH 1:1 SLOPE BACK
- PROPOSED FULL SCALE PERMEABLE REACTIVE BARRIER*
- PROPERTY BOUNDARY
- MULTI-INCREMENTAL SAMPLING DECISION UNIT
- AQUEOUS FIREFIGHTING FOAM (AFFF) TRAINING AREA
- PILOT TEST PERMEABLE REACTIVE BARRIER

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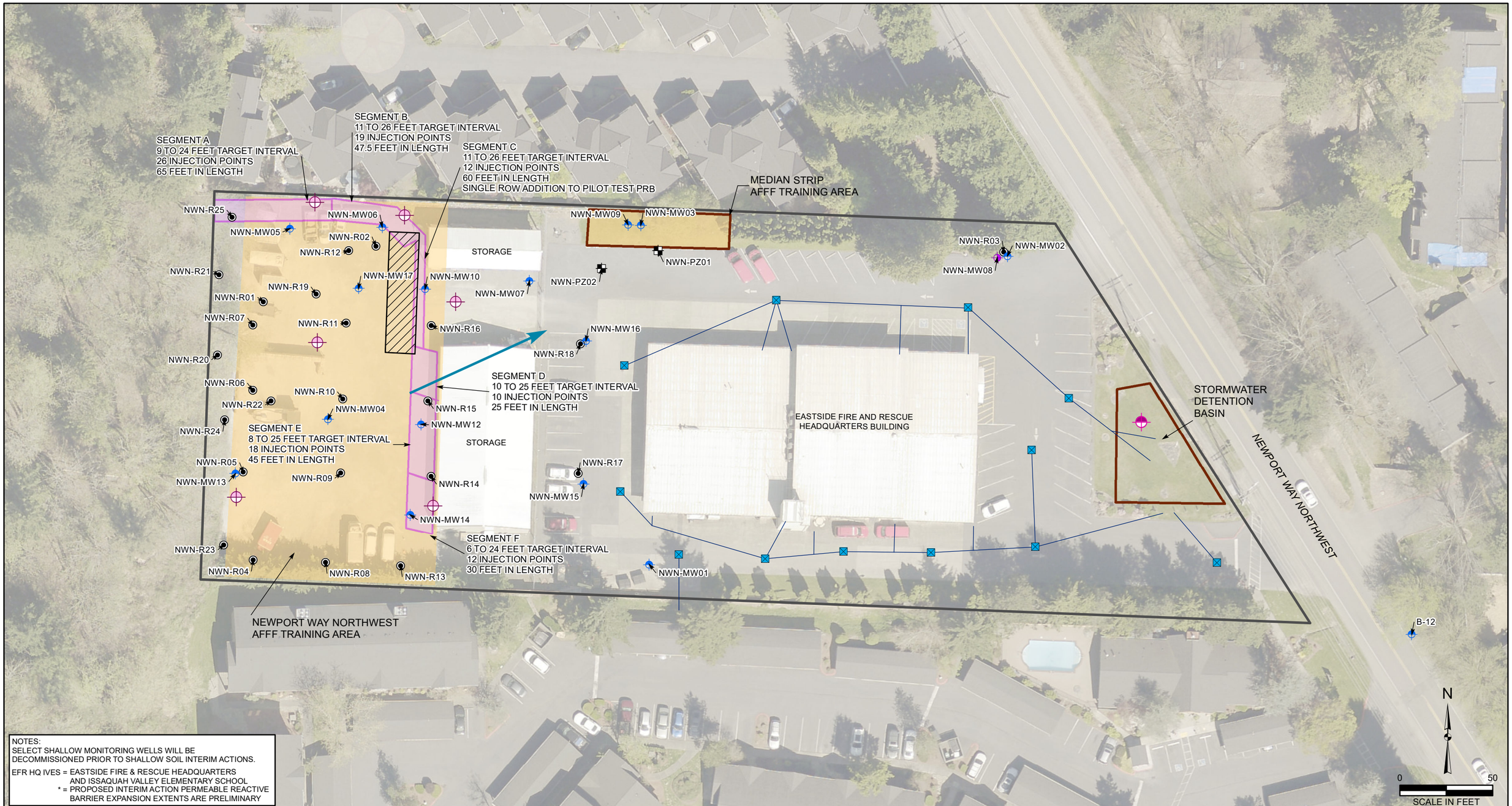
FIGURE 3

EFR HQ SOURCE AREA PROPOSED
INTERIM ACTION ELEMENTS AND EXTENTS
EFR HQ IVES SITE
175 NEWPORT WAY NORTHWEST AND
555 NORTHWEST HOLLY STREET
ISSAQUAH, WASHINGTON

FARALLON PN: 1754-009

Drawn By: rbates | Checked By: SS | Date: 9/23/2025 | Disc Reference: Q:\Projects\1754 EastsideFireRescue\009\001\Figure-11_Proposed_IA_Extents.mxd



NOTES:
SELECT SHALLOW MONITORING WELLS WILL BE DECOMMISSIONED PRIOR TO SHALLOW SOIL INTERIM ACTIONS.

EFR HQ IVES = EASTSIDE FIRE & RESCUE HEADQUARTERS AND ISSAQUAH VALLEY ELEMENTARY SCHOOL
* = PROPOSED INTERIM ACTION PERMEABLE REACTIVE BARRIER EXPANSION EXTENTS ARE PRELIMINARY

LEGEND

- PROPOSED SHALLOW MONITORING WELL (REMEDIAL INVESTIGATION)
- PROPOSED SHALLOW COMPLIANCE MONITORING WELL
- BORING
- SHALLOW MONITORING WELL
- INTERMEDIATE MONITORING WELL
- PIEZOMETER
- CATCH BASIN
- STORMWATER LINE
- APPROXIMATE GROUNDWATER FLOW DIRECTION
- PROPOSED FULL SCALE PERMEABLE REACTIVE BARRIER*
- PROPERTY BOUNDARY
- MULTI-INCREMENTAL SAMPLING DECISION UNIT
- AQUEOUS FIREFIGHTING FOAM (AFFF) TRAINING AREA
- PILOT TEST PERMEABLE REACTIVE BARRIER

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FIGURE 4

EFR HQ SOURCE AREA PROPOSED INTERIM ACTION
PERMEABLE REACTIVE BARRIER EXPANSION
EFR HQ IVES SITE
175 NEWPORT WAY NORTHWEST AND
555 NORTHWEST HOLLY STREET
ISSAQUAH, WASHINGTON

FARALLON PN: 1754-009

Drawn By: rbates | Checked By: SS | Date: 9/23/2025 | Disc Reference: Q:\Projects\1754 EastsideFireRescue\009\001\Figure-12_Proposed_IA_PRB.mxd

Table 1
Vadose Zone Source Treatment Quantities
EFR HQ IVES Site
Issaquah, Washington
Farallon PN: 1754-009

Line	Description	Average Area (sf)	ISS / Excavation Depth (feet)	Volume (bcf)	Volume (bcy)	Mass (tons)	Notes
Soil Treatment Extents - Total PFAS > 1 mg/kg							
1	0 to 5 foot lift w/ 1:1 slope at base	12,935	5.0	64,675	2,400	4,075	Volume available for ISS treatment in these areas will be reduced by asphalt cap and stormwater features (Lines 6-9)
2	5 to 10 foot lift (NWN-R15), 1:1 slope	2,100	5.0	10,500	390	665	
3	5 to 10 foot lift (NWN-R19), 1:1 slope	1,200	5.0	6,000	225	380	
4	5 to 10 foot lift (NWN-R20 & NWN-R24), 1:1 slope	1,230	5.0	6,150	230	390	
5	10 to 13 foot lift (NWN-R20), 1:1 slope	210	3.0	630	25	40	
Subtotals				**87,955**	**3,270**	**5,550**	

Soil Excavation for Off-Property Disposal to Facilitate Asphalt Cap and Stormwater Infrastructure Installations							
Line	**Description**	**Average Area (sf)**	**Excavation Depth (feet)**	**Volume (bcf)**	**Volume (bcy)**	**Mass (tons)**	**Notes**
6	0 to 5 foot lift, for 10-inch thick asphalt cap	26,000	0.833	21,670	805	1,365	
7	0 to 5 foot lift, for stormwater drainage piping and catch basins	687	2.167	1,490	60	95	229 linear feet, 3-feet wide by 2-2/12 feet deep
8	0 to 5 foot lift, for stormwater vault	2,079	4.167	8,665	325	550	Vault excavation in 0-5 ft lift: 27-ft long, 77-ft wide, 4.167-ft tall
9	5 to 10 foot lift, for stormwater vault	2,079	1.333	2,775	105	175	Vault excavation in 5-10 ft lift: 27-ft long, 77-ft wide, 1.333-ft tall
Subtotals				**34,600**	**1,295**	**2,185**	

In-Situ Stabilization (ISS) and Soil Excavation for Swelling			**5% Swelling Factor**				**10% Swelling Factor**			
Line	**Description**	**Average Area (sf)**	**ISS / Excavation Depth (feet)**	**Volume (bcf)**	**Volume (bcy)**	**Mass (tons)**	**ISS / Excavation Depth (feet)**	**Volume (bcf)**	**Volume (bcy)**	**Mass (tons)**
10	0 to 5 foot lift; off-property disposal for swelling factor	12,935	0.20	2,590	100	170	0.38	4,855	180	310
11	0 to 5 foot lift; ISS (reduced by lines 6-8)	12,935	4.80	30,260	1,110	1,895	4.63	27,995	1,030	1,755
12	5 to 10 foot lift (NWN-R15); ISS (reduced by line 9)	2,100	5.0	7,725	285	490	5.0	7,725	285	490
13	5 to 10 foot lift (NWN-R19), 1:1 slope; ISS	1,200	5.0	6,000	225	380	5.0	6,000	225	380
14	5 to 10 foot lift (NWN-R20 & NWN-R24), 1:1 slope; ISS	1,230	5.0	6,150	230	390	5.0	6,150	230	390
15	10 to 13 foot lift (NWN-R20), 1:1 slope; ISS	210	3.0	630	25	40	3.0	630	25	40
Treatment Via In-Situ Stabilization Subtotal				**50,765**	**1,875**	**3,195**		**48,500**	**1,795**	**3,055**
Excavation for Off-Property Disposal Subtotal (Swelling, Asphalt Cap, Stormwater Infrastructure)				**37,190**	**1,395**	**2,355**		**39,455**	**1,475**	**2,495**
Total Treatment and Excavation Volume and Mass				**87,955**	**3,270**	**5,550**		**87,955**	**3,270**	**5,550**

NOTES:

sf = square feet; ft = feet

bgs = below ground surface

bcf = bank cubic feet; bcy = bank cubic yards

Assumes 1.7 tons per cubic yard sand. Estimated mass rounded up to nearest 5 tons.

Excavations from 5 to 10 and 10 to 13 feet bgs assume a 1:1 slope back on all four sides. Volume calculated as the average of the base and top areas x treatment area depth.

Lines 1 to 5: Calculate total volume and mass to treat via in-situ stabilization (ISS) or excavation based on total PFAS concentrations greater than 1 milligram per kilogram (mg/kg).

Lines 6 to 9: Calculate total volume and mass to excavate for off-property disposal at a Subtitle C facility to facilitate installation of a 10-inch thick asphalt cap and stormwater management infrastructure (drainage piping, concrete vault).

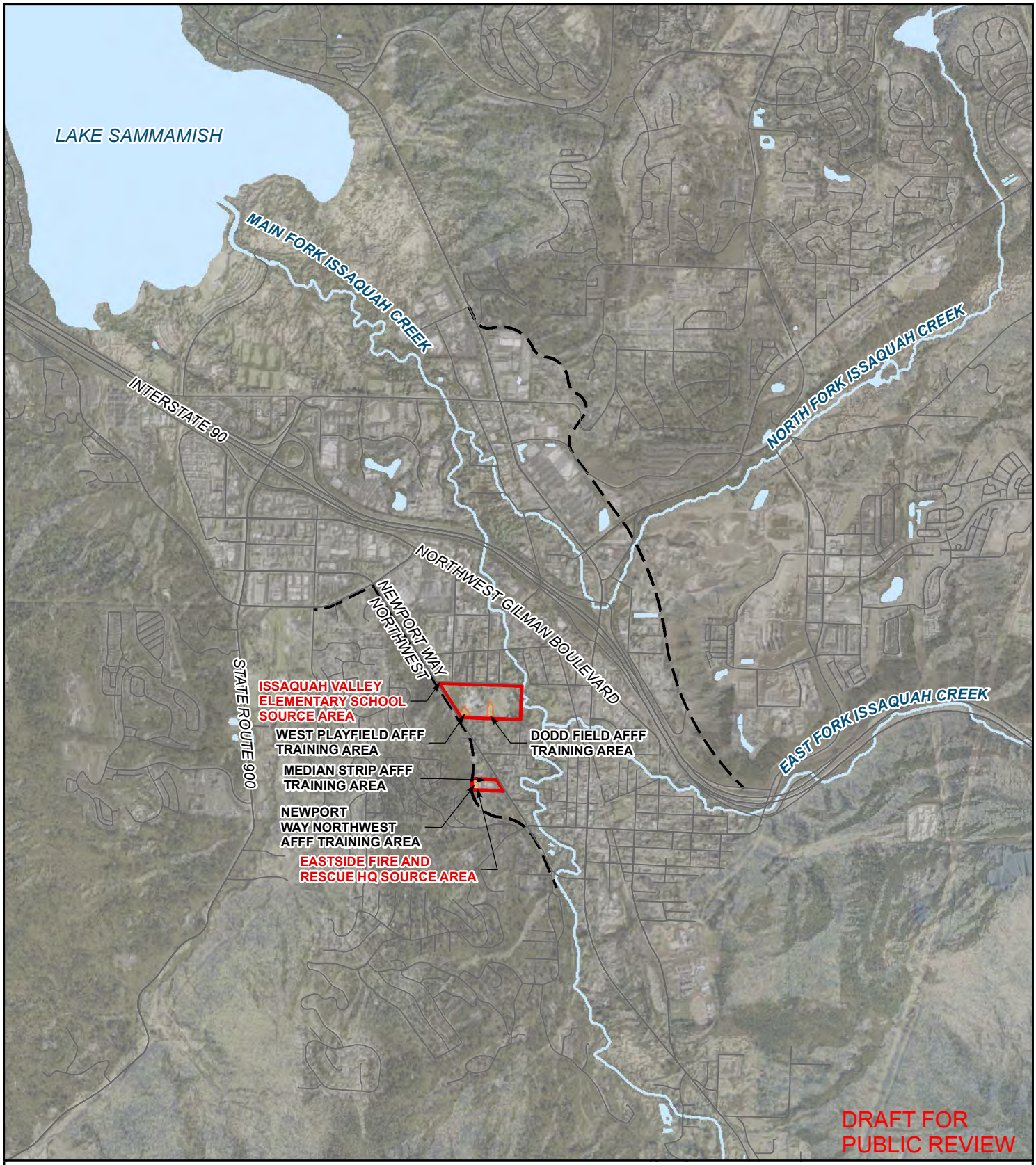
Line 10: Calculates volume and mass of soil to excavate from the 0 to 5 foot lift for off-property disposal to facilitate net swelling of 5 and 10 percent (%) following compaction of the in-situ stabilized soil.

Lines 11 to 12: Calculate net volume of soil to be treated via in-situ stabilization from the 0-5 and 5-10 foot lifts after excavation of soil for the asphalt cap and stormwater management infrastructure.

Table 2
Permeable Reactive Barrier Design Parameters
EFR HQ IVES Site
Issaquah, Washington
Farallon PN: 1754-009

Design Information	Segment A	Segment B	Segment C	Segment D	Segment E	Segment F	Totals
PlumeStop® (pounds)	14,813	10,825	6,837	5,697	11,623	8,204	58,000
Number of Injection Points	26	19	12	10	18	12	97
Row Type	Double	Double	Single	Double	Double	Double	--
Injection Spacing (feet)	5	5	5	5	5	5	--
Total Segment Length (feet)	65	47.5	60	25	45	30	272.5
Vadose Zone Interval (feet)	9 to 13	11 to 15	11 to 15	10 to 14	8 to 12	6 to 10	--
Aquifer Zone Interval (feet)	13 to 24	15 to 26	15 to 26	14 to 25	12 to 25	10 to 24	--
Vadose Injection Concentration (mg/L)	16,551	16,551	16,551	16,551	16,551	16,551	--
Saturated Injection Concentration (mg/L)	22,758	22,758	22,758	22,758	22,758	22,758	--
Gallons per Foot - Vadose Zone	55	55	55	55	55	55	--
Gallons per Foot - Aquifer Zone	40	40	40	40	40	40	--
Total Gallons Injected	17,086	12,486	7,886	6,572	13,406	9,463	66,900

NOTES:
mg/L = milligrams per liter
Design details presented above were adapted from a design prepared September 17, 2025 by Regenesis Remediation Solutions of San Clemente, California (Regenesis).
See accompanying report for further details.



LEGEND

- CREEK
- LOWER ISSAQUAH VALLEY
- AQUEOUS FIREFIGHTING FOAM (AFFF) TRAINING AREA
- SOURCE AREA

0 2,500

SCALE IN FEET

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FIGURE 1

LOWER ISSAQUAH VALLEY VICINITY MAP
EFR HQ IVES SITE
175 NEWPORT WAY NORTHWEST AND
555 NORTHWEST HOLLY STREET
ISSAQUAH, WASHINGTON

FARALLON PN: 1754-009

Drawn By: lmurock Checked By: SS Date: 5/29/2025 Disc Reference:

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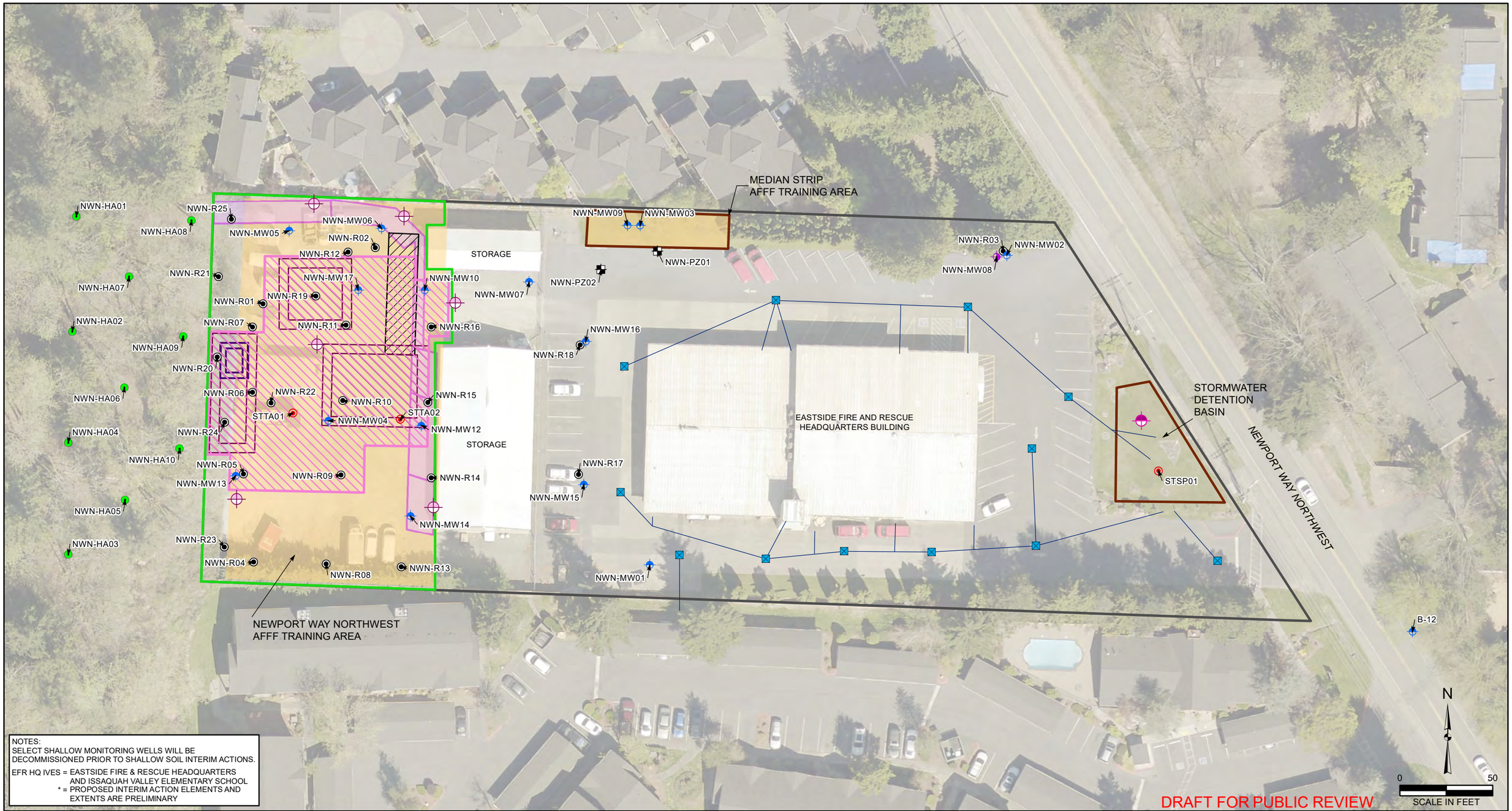

NOTES:
SELECT SHALLOW MONITORING WELLS WILL BE DECOMMISSIONED PRIOR TO SHALLOW SOIL INTERIM ACTIONS.

EFR HQ IVES = EASTSIDE FIRE & RESCUE HEADQUARTERS AND ISSAQUAH VALLEY ELEMENTARY SCHOOL
* = PROPOSED INTERIM ACTION ELEMENTS AND EXTENTS ARE PRELIMINARY

DRAFT FOR PUBLIC REVIEW

LEGEND

- PROPOSED SHALLOW MONITORING WELL (REMEDIAL INVESTIGATION)
- PROPOSED SHALLOW COMPLIANCE MONITORING WELL
- HAND AUGER LOCATION
- BORING
- GEOSYNTEC SAMPLE
- SHALLOW MONITORING WELL
- INTERMEDIATE MONITORING WELL
- PIEZOMETER
- CATCH BASIN
- STORMWATER LINE
- PROPOSED AREA TO RESTORE WITH ASPHALT PAVEMENT CAP
- PROPOSED SOIL EXCAVATION AND STABILIZATION EXTENT (0 TO 5 FEET BELOW GROUND SURFACE)
- PROPOSED VADOSE ZONE SOIL TREATMENT AREA (5 TO 10 FEET BELOW GROUND SURFACE) WITH 1:1 SLOPE BACK
- PROPOSED VADOSE ZONE SOIL TREATMENT AREA (10 TO 13 FEET BELOW GROUND SURFACE) WITH 1:1 SLOPE BACK
- PROPOSED FULL SCALE PERMEABLE REACTIVE BARRIER*
- PROPERTY BOUNDARY
- MULTI-INCREMENTAL SAMPLING DECISION UNIT
- AQUEOUS FIREFIGHTING FOAM (AFFF) TRAINING AREA
- PILOT TEST PERMEABLE REACTIVE BARRIER

NOTES:
1. ALL LOCATIONS ARE APPROXIMATE.
2. FIGURES WERE PRODUCED IN COLOR. GRAYSCALE COPIES MAY NOT REPRODUCE ALL ORIGINAL INFORMATION.

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FIGURE 13

EFR HQ SOURCE AREA PROPOSED
INTERIM ACTION ELEMENTS AND EXTENTS
EFR HQ IVES SITE
175 NEWPORT WAY NORTHWEST AND
555 NORTHWEST HOLLY STREET
ISSAQUAH, WASHINGTON

FARALLON PN: 1754-009

Drawn By: rbates | Checked By: SS | Date: 9/23/2025

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