

**ENVIRONMENTAL CHECKLIST**  
**Seattle-Tacoma International Airport (SEA)**  
**Snow Storage Expansion**

**A. BACKGROUND**

**1. Name of proposed project, if applicable:**

Snow Storage Expansion

**2. Name of applicant:**

Port of Seattle

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

Port of Seattle  
P.O. Box 68727  
Seattle, WA 98168

Contact: Steve Rybolt, Senior Environmental Program Manager  
Telephone/Email: (206) 787-5527, Rybolt.S@portseattle.org

**4. Date checklist prepared:** September 12, 2022

**5. Agency requesting checklist:** Port of Seattle – SEPA File Number 2022-01

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

Construction of the Snow Storage Expansion Project (Project) will occur in two phases. Phase 1 is expected to be constructed from spring 2023 to spring 2024. Phase 2 is expected to be constructed from spring 2024 to winter 2024.

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

Sea-Tac Airport (SEA) underwent a major planning effort—The Sustainable Airport Master Plan (SAMP). The SAMP identified a suite of Near-Term Projects (NTP) that are currently undergoing an environmental review. With or without the SAMP NTPs, this Project is needed to provide additional snow storage capacity during large snow events and allow the Port to continue to meet the conditions of their National Pollution Discharge Elimination System (NPDES) permit. Construction of this Project does not impact Port of Seattle (Port) choices or decisions regarding whether and what SAMP NTP projects may occur.

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

- Snow Storage Expansion Project Wetland Delineation (Clearway Environmental 2022)
- Flight Corridor Safety Program 2019 (SEPA No. 19-04)

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

- Port staff will seek Port Commission authorization for final design budget and construction authorization for the Project in late 2022.
- Flight Corridor Safety Program 2019 (SEPA No. 19-04) identified the removal and replanting of trees at the Project site. There are no anticipated changes from SEPA No. 19-04 and the Project.

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

Yes, government approvals will be required in advance of Project commencement. These approvals include the following:

- U.S. Army Corps of Engineers: Section 404 Individual Permit
- National Marine Fisheries Service and U.S. Fish and Wildlife Service (USFWS): Endangered Species Act (ESA) Section 7 Compliance
- National Historic Preservation Act Section 106 Compliance
- Washington State Department of Ecology (Ecology): Section 401 Water Quality Certification
- Critical Areas regulatory review completed by Aviation ENV for wetland and wetland buffer, steep slope, and wellhead protection area impacts per the 2018 Interlocal Agreement with the City of SeaTac
- Port of Seattle Grading 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.)**

**Purpose and Need**

The purpose of the Project is to designate additional snow storage area that will provide needed capacity during large snow events and allow the Port to meet the terms of their NPDES permit. The available snow storage at SEA is limited and has capacity deficiencies during large and back-to-back snow events, leaving the airport with two designated snow storage facilities currently in operation—the North Snow Storage Area and the South Snow Storage Area (Figure 1). However, the Port has determined that the capacity of the existing snow storage areas is not adequate to manage snow volumes during significant snow events. During large snow events, alternative locations are used for snow storage that meet the conditions of the Port’s NPDES permit but they are not easily accessible and not intended for this purpose.

During snow events, the Port is responsible for maintaining operations at SEA, including removal of snow from runways, taxiways, and the ramp areas (in and around the gates and cargo areas) (Figure 2). Snow removed from ramp areas contains high amounts of glycol from de-icing of planes. Glycol causes contamination of the snow, and in order to comply with the Port’s NPDES permit, the snow removed from the ramp areas must be stored in impermeable containment areas where meltwater can be discharged to the Port’s Industrial Waste System (IWS).

In 2021, the Port initiated a project to expand snow storage capacity to meet the minimum volume necessary to maintain an accepted operational level of service at SEA during snow events. Based on a review of past snowfall records, a 12-inch snow event was selected by the Port as the basis for calculating the necessary snow storage volume. A 12-inch storm event requires 167,200 cubic yards (cy) of storage and the capacity of the existing snow storage areas is 69,800 cy, creating the need for an additional 97,400 cy of snow storage.

The Port completed an evaluation of additional locations for snow storage following specific criteria such as being a reasonable distance from the areas to be cleared and being safely accessible. Based on this evaluation, the Project includes upgrades or new installations at three areas that will collectively meet the needed snow storage capacity. As shown in Table 1 and depicted in Figure 2, the Project would expand both of the existing snow storage areas and add a new snow storage area near Lagoon 3. These on-site improvements would reduce the operational costs of rehandling snow and would also address safety concerns by limiting the number of large dump trucks hauling snow around the airport, which could reduce traffic accidents.

**Table 1. Existing and Additional Snow Storage Capacity at SEA**

Location	Snow Storage Capacity (cy)		Total
	Existing	Project Addition	
North Snow Storage Area	62,800	40,000	102,800
South Snow Storage Area	7,000	3,000	10,000
Lagoon 3 Storage Area	0	54,400	54,400
<b>Total</b>	<b>69,800</b>	<b>97,400</b>	<b>167,200</b>

**Snow Storage Expansion Areas**

The Project includes expansion of the two existing snow storage areas (North and South) as well as construction of a new snow storage area northeast of Lagoon 3 (Figure 2). Currently, the snow storage capacity at the two existing facilities can store the snow from approximately a 3-inch snowstorm or 69,800 cy. The Project will add 97,400 cy of new capacity for a total capacity of 167,200 cy. The total volume of required snow storage was developed in consideration of historical snow event records from airport operations and maintenance and assumptions. With Project implementation, the snow storage facilities would be 100% full following a single 12-inch snow event. If larger or consecutive snow events occur, the Port would continue to use other spaces that are not immediately adjacent to the runway or apron that meet the Port’s NPDES requirements.

The Project includes expanded or new snow storage in three separate locations as well as roadway improvements as described below.

- **Expand Existing North Snow Storage Area:** The North Snow Storage Area is located northeast of the north end of Runway 16L-34R. This area currently stores up to 62,800 cy of snow and will be expanded by installing approximately 0.60-acre of asphalt to the north to add an additional 40,000 cy of capacity (Figure 3a).

The existing IWS lift station at this location will also be upgraded with an expanded wet well and pump replacement so that meltwater is collected in the IWS lift station and pumped to the IWS. During the de-icing season, runoff from snow piles at the North Snow Storage Area drains to the North Snowmelt Lift Station, which then pumps it into the IWS gravity conveyance system. The North Snow Storage Area drains to the IWS until pump station capacity is exceeded, at which point meltwater will overflow to SDN 2/3/4, part of the Stormwater Drainage System (SDS). If overflow occurs to SDN 2/3/4, the Port initiates outfall monitoring to ensure compliance with its NPDES permit.

The North Snow Storage Area expansion to the north will be designed with 3% to 5% maximum grades and a retaining wall, installed along the north side of the new pavement, to reduce steep grades to the north along the Perimeter Road. Three light poles will be installed to provide additional lighting during snow storage operations at night and one other light pole will be installed to illuminate the lift station control panel and nearby area. Curb and gutter will be installed along approximately 600 feet of the perimeter of the North Snow Storage Area expansion to prevent meltwater runoff from escaping the containment area. An ecology block wall 4 feet high (two blocks) will also be installed along the expansion area perimeter to define the limits of snow storage for operators.

- **Expand Existing South Snow Storage Area:** The South Snow Storage Area is located on the south end of Runway 16L-34R. This area currently stores up to 7,000 cy of snow and will be expanded by increasing the height of the retaining wall on the east side of the area to add 3,000 cy of capacity. The existing truck turnaround area will also be widened so that trucks have enough room to maneuver on the storage area (Figure 3b).

Improvements at this site include adding a third row of ecology blocks on the existing row of blocks. This will increase the depth of snow that can be moved to this area. The snow storage area runoff is conveyed into an IWS catch basin at the base of the South Snow Storage Area embankment, located across the Perimeter Road from the Gate E-5 entrance to the fuel tank farm. Flow out of this catch basin is conveyed through the IWS system to a pump station located at the south end of the fuel farm.

- **Construct New Lagoon 3 Snow Storage Area:** The Lagoon 3 Snow Storage Area is located on the south end of Runway 16L-34R, to the west side of Runway 34R end, accessed through Gate W-45. This area contains Wetland 28, Wetland IWSa, and Wetland IWSb.

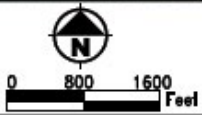
A new asphalt pad will be constructed for snow storage near Lagoon 3. The design will require grading to raise the existing ground in this area by 3 to 14 feet with 3% to 5% maximum grades. A pipe will be installed to collect the snow meltwater and drain southwest to Lagoon 3 where it will be treated. Based on preliminary design, construction in this area will directly impact approximately 0.80 acres of wetlands and approximately 0.70 acre of wetland buffers. Mitigation will be implemented by the Port to address the anticipated wetland impacts.

- **Perimeter Road Improvements:** The existing Perimeter Road is located around the extents of the airfield. To accommodate use by large snow equipment with larger turning radii, the Project also includes widening of Perimeter Road to the east by approximately 12 feet near the south end of Runway 16L-34R. Perimeter Road will be widened on the west side of Runway 16L-34R up to Gate W-45. Perimeter Road will be designed with 2% maximum grades to match the existing grade, and the existing ditch along the road will be shifted to the east.

### **Project Construction and Phasing**

The Project will be completed in two phases. Phase 1 includes the expansion for the existing North and South Snow Storage Areas and associated utility improvements and Perimeter Road widening. Phase 1 will be constructed from 2023 to 2024. Phase 2 work will include work for construction of the new Lagoon 3 Snow Storage Area and associated utility improvements. Phase 2 construction, including wetland mitigation, will occur in 2024.

**Figure 1**  
**Vicinity Map**



**Jacobs**  
INCORPORATED

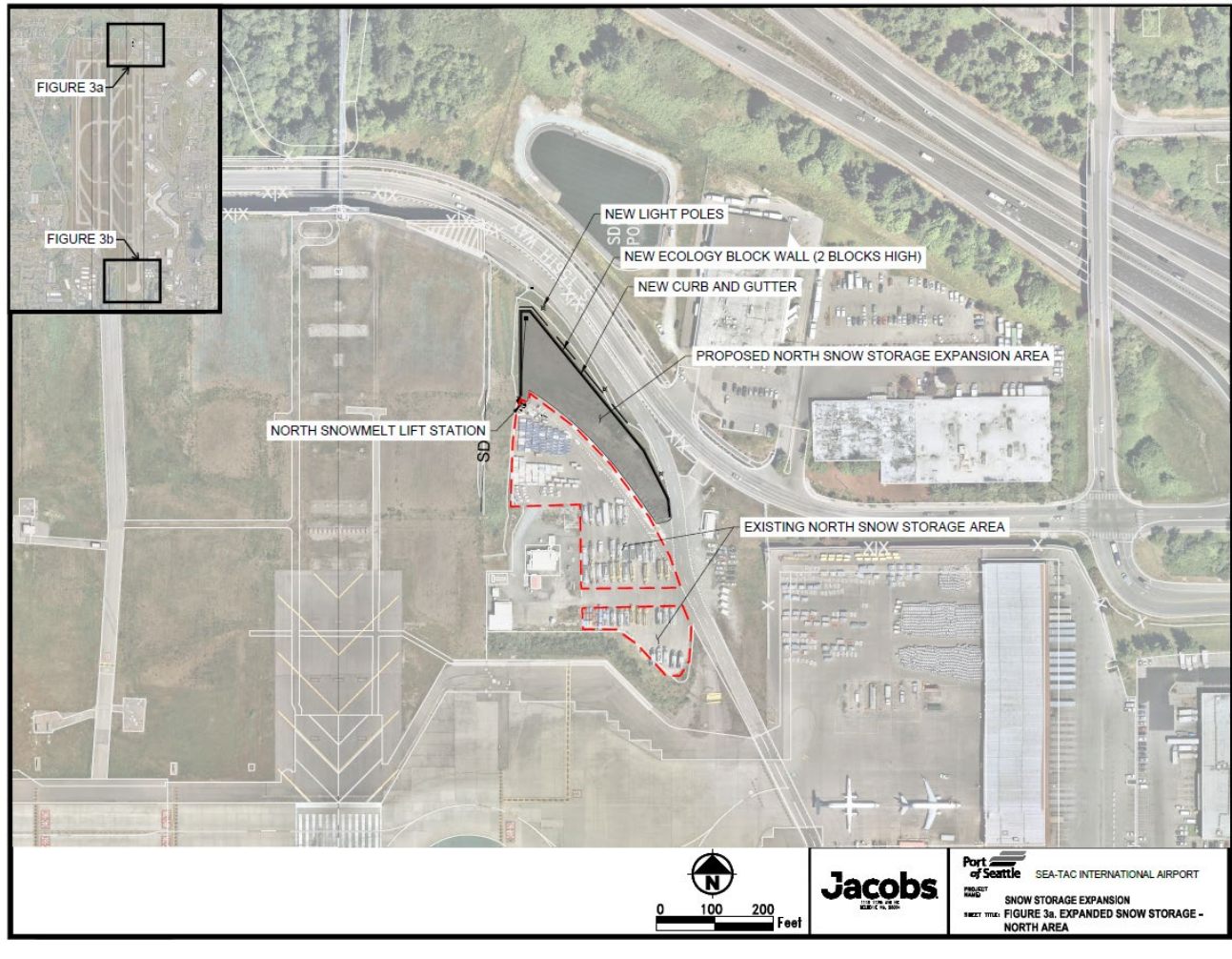
Port of Seattle SEA-TAC INTERNATIONAL AIRPORT

WEST ITEM FIGURE 1: VICINITY MAP

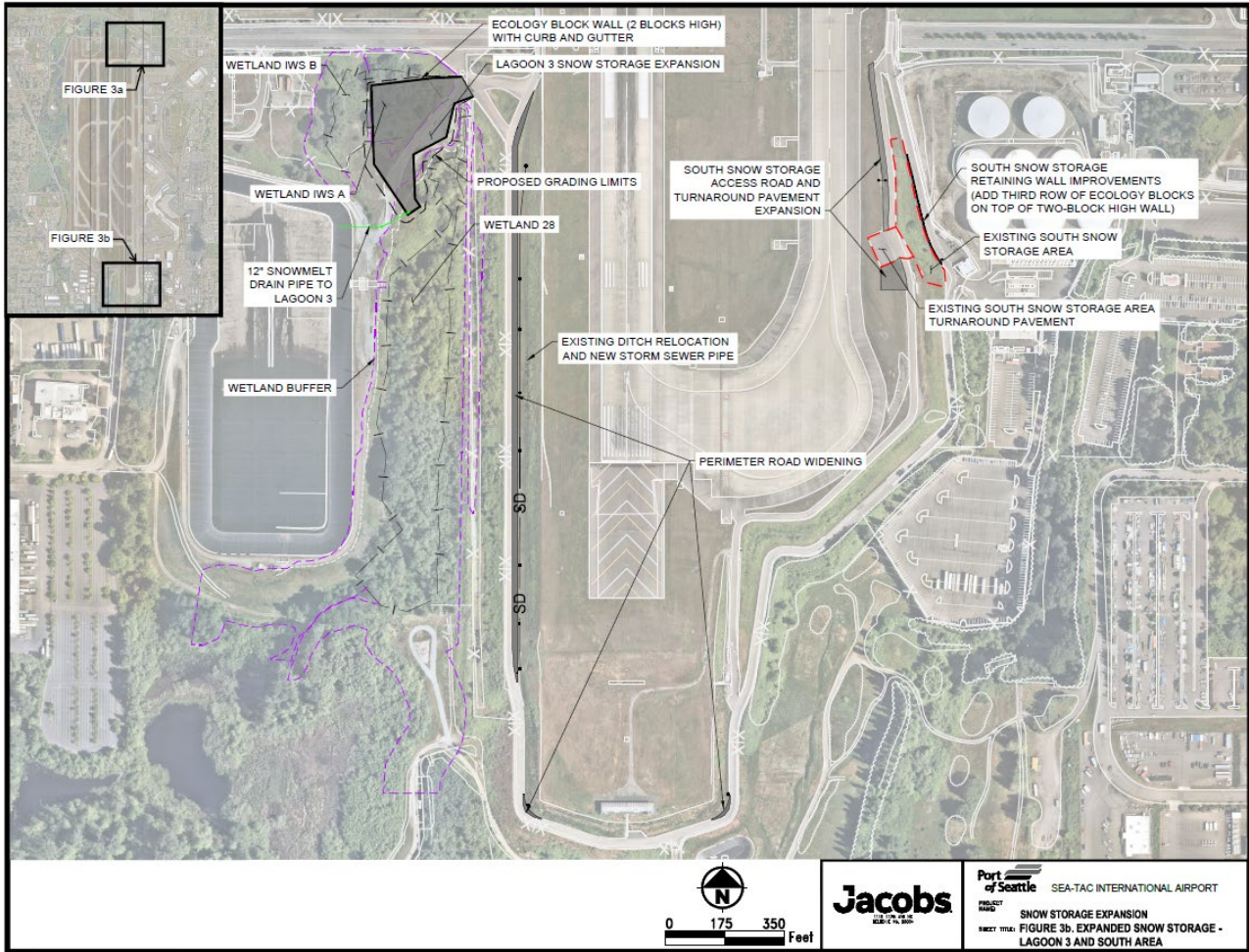
**Figure 2**  
**Snow Removal Areas**



**Figure 3a**  
**Expanded Snow Storage North Area**



**Figure 3b**  
**Expanded Snow Storage South Area**



**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 Project will be located within the SEA fence line. The physical address is:

Seattle-Tacoma International Airport  
 17801 Pacific Highway South  
 Seattle, WA 98158  
 Sections 21 and 33, Township 23 North, Range 04 East and Section 4, Township 22 North,  
 Range 04 East

The Project will occur at three areas within SEA, as shown in Figures 3a and 3b, including the North



Snow Storage Area, the South Snow Storage Area, Lagoon 3 Snow Storage Area.

**B. ENVIRONMENTAL ELEMENTS**

**1. Earth**

**a. General description of the site (circle one):** Flat, rolling, hilly, steep slopes, mountainous, other

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

The Project area is generally flat and contains open areas and wetlands as well as adjacent roadways and airport runways.

**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.**

Underlying soil consists of pre-existing glacial till (i.e., Vashon till) and associated outwash sediments or imported sand, gravel, and pre-existing fill that was graded and compacted during original site use.

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

There are no surface indications or a history of unstable soils at the site.

**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.**

The Project includes excavation, grading, and filling associated with the snow storage expansion areas and roadway widening as outlined in Table 2 below. The contractor will source clean fill material as specified per Port requirements.

**Table 2. Excavation and Fill Quantities**

<b>Project Area</b>	<b>Cut or fill quantity (cubic yards)</b>	<b>Area (square yards)</b>
North Snow Storage	2,500 (fill)	2,966
South Snow Storage	500 (cut)	1,487
Perimeter Road	840 (fill)	2,786
Lagoon 3	26,100 (fill)	9,708

**f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.**

Erosion could potentially occur during construction; however, erosion and sediment control best management practices (BMPs) will be implemented to minimize that potential, per the Project’s stormwater pollution prevention and temporary erosion and sediment control plans.

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

The Project will add approximately 3 acres of new impervious surfaces including the following:

- North Snow Storage Area: 0.60 acre
- South Snow Storage Area: 0.30 acre

- Perimeter Road Widening: 0.60 acre
- Lagoon 3 Snow Storage Area: 1.55 acres

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

During construction, a temporary erosion and sediment control plan will be in place to prevent erosion at the site; this is a requirement of the Port's Master Specifications.

**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.**

During construction, emissions will be generated from construction vehicles, equipment, and workers traveling to and from the Project area. Construction activities will also result in short-term, construction-related air emissions such as dust and vehicle exhaust. These short-term impacts will be minimized to the best extent practicable (e.g., water trucks to suppress dust, and new equipment).

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

There are no off-site sources of emissions that will affect the Project.

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

The contractor performing construction will be required, per Port Master Specifications, to maintain and repair all equipment in a manner that meets state regulations and reasonably minimizes emissions.

**3. Water**

**a. Surface Water:**

**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.**

There are three wetlands near the proposed Lagoon 3 Snow Storage Area: IWSa, IWSb, and Wetland 28. Wetlands IWSa and IWSb are both less than 1 acre each and are palustrine, forested, depressional wetlands with a rating of Category III. Wetland 28 is a nearly 30-acre palustrine, scrub/shrub depressional wetland with a rating of Category I (Clearway Environmental 2022).

**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.**

Yes, construction of the Lagoon 3 Snow Storage Area is expected to have permanent and temporary impacts on Wetland IWSa and IWSb.

**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.**

Out of a total of 26,100 cubic yards of fill necessary for the project, approximately 8,300 cubic yards of fill will be placed in Wetland IWSa, and approximately 100 cubic yards of fill will be placed in Wetland IWSb. The remaining 17,700 cubic yards of fill will be placed outside of wetlands. The contractor will source clean fill material as specified per Port requirements.

Impacts to wetlands are outlined in Table 3.

**Table 3. Snow Storage Wetland Impacts**

Wetland	Wetland Category	Wetland Size (acre)	Permanent Direct (acre)	Temporary Direct (acre)	Permanent Buffer (acre)	Temporary Buffer (acre)
Wetland 28	I	29.70	0.0	0.00	0.69	0.51
Wetland IWSa	III	0.78	0.78 <sup>1</sup>	0.00	0.00	0.00
Wetland IWSb	III	0.54	0.02	0.00	0.00	0.00
<b>Total</b>	<b>N/A</b>	<b>31.02</b>	<b>0.80</b>	<b>0.00</b>	<b>0.69</b>	<b>0.51</b>

1. Direct impacts to Wetland IWSa are 0.70-acre; however, this would constitute a complete take of the wetland.

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

No, the Project 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.**

The Project area 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.**

No. All snow that melts from the three snow storage areas will be treated via the Port's IWS.

**b. Ground Water:**

**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 general description, purpose, and approximate quantities if known**

Groundwater will not be withdrawn, nor will water be discharged to groundwater for this Project.

**2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: 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.**

Waste materials will not be discharged into the ground from a septic system or other source.

**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.**

Runoff from melted snow will be treated via the Port's IWS. Snowmelt from the North Snow Storage Area drains to the North Snowmelt Lift Station, which then pumps it into the IWS gravity conveyance system. Snowmelt from the South Snow Storage Area is conveyed into an IWS catch basin at the base of the South Snow Storage Area embankment, located across the Perimeter Road from the Gate E-5 entrance to the fuel tank farm. Flow out of this catch basin is conveyed through the IWS system to a pump station located at the south end of the fuel farm. Snowmelt from the Lagoon 3 Snow Storage Area will flow into a pipe that will drain to Lagoon 3 where it will be treated. Surface runoff from Perimeter Road is currently collected by a combination of a roadside ditch and catch basins and storm drainage pipe located on the east side of the existing road. The Perimeter Road pavement widening will be done along the east edge of Perimeter Road with the new pavement replacing the roadside

ditch area. The existing catch basins will be raised to match finished grade of the new pavement and grading of the new pavement will direct runoff into a new roadside ditch. New inlets will be installed in the bottom of the ditch line to match the current catch basin spacing. The inlets will be connected to each existing catch basin with 12-inch-diameter ductile iron storm drainage pipe.

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

Project design and construction management will prevent discharge of waste materials to ground or surface waters through existing and upgraded stormwater BMPs as required by the Stormwater Management Manual for Western Washington (Ecology 2019), SEA's individual NPDES permit, and the spill prevention, control, and countermeasure plan will be updated to include this new location.

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

No, the Project will not alter or otherwise affect drainage patterns in the vicinity of the site.

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

The Project includes improvements to the Port's IWS to ensure that snowmelt is treated prior to being discharged in compliance with the Port's NPDES permit.

**4. Plants**

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

- deciduous tree: alder, maple, aspen, other: Pacific willow
- evergreen tree: fir, cedar, pine, other:
- shrubs: Sitka willow, salmonberry, Himalayan blackberry
- grass:
- pasture
- crop or grain
- orchards, vineyards or other permanent crops
- wet soil plants: bittersweet nightshade, stinging nettles, lady fern
- water plants:
- other types of vegetation

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

Some vegetation from the existing wetlands identified in Section 3 will be removed as part of the Project.

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

No threatened or endangered plant species are known to be on or near the Project area.

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

Wetland mitigation will be provided through re-establishment, creation, or enhancement to address wetland impacts. Options for implementing wetland mitigation (in order of preference) include on a Port-owned property in the same watershed as the Project site, purchasing in-lieu fee mitigation credits, or at an off-site location. Wetland mitigation will be developed in coordination with regulatory agencies and consistent with the City of SeaTac Critical Areas code.

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

Invasive species such as Himalayan blackberry were observed in the vicinity of the Lagoon 3 Snow Storage Area during wetland delineations.

**5. Animals**

**a. List any birds and animals which have been observed on or near the site or are known to be on or near the site. Examples include:**

Birds: , heron, , , other: , , ,

Mammals: deer, bear, elk, beaver other: , small mammals

Fish: bass, salmon, trout, herring, shellfish, other:

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

No threatened or endangered animal species are known to occur on or near the Project site.

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

SEA property and lands in the immediate vicinity are not part of any known migration routes.

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

No preservation or enhancement measures are proposed. The Project is not expected to attract wildlife.

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

Rock pigeons and European starlings are the only invasive animal species known to exist at or near the Project site.

**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.**

Electricity will be used to power four new light poles that will be installed to provide additional lighting during snow storage operations at night.

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

The Project is not expected to affect the 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:**

New light poles will use LED lighting for energy conservation.

**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 as a result of this proposal? If so, describe.**

There are no known environmental health hazards for this Project.

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

There are no known contaminated soils at the site. Plans will be in place to handle contaminated soil if encountered during Project construction and all pertinent local, state, and federal regulations will be followed.

**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**

There are no known hazardous chemicals/conditions that might affect the Project. If contaminated chemicals/conditions are encountered that might affect the Project, plans will be in place to handle hazardous chemicals/conditions when and if they are encountered. During construction, pertinent local, state, and federal regulations will be followed.

**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.**

Diesel fuel and gasoline will be used on-site to power construction equipment such as cranes, excavators, dump trucks, and power generators. All toxic or hazardous chemicals will be stored in compliance with applicable regulations.

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

No special emergency services are expected as a result of implementing the Project. Construction-related accidents or injuries may require response from local fire, police, air units, or ambulances. The Port maintains its own police force and firefighting and rescue units that will be called upon for these types of incidents. The Port also maintains a trained response team available to respond at all times to any spill or loss of contaminated or hazardous materials.

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

No known environmental health hazards have been identified. If encountered, local, state, and federal regulations regarding safety and handling of hazardous materials will be followed and enforced.

**b. Noise**

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

In general, the dominant source of noise in the airport vicinity is generated by aircraft.

**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 is anticipated from the use of equipment during construction activities. Phase 1 of construction is expected to occur from spring 2023 to spring 2024. Phase 2 is expected to be constructed from spring 2024 to winter 2024.

Construction is anticipated to primarily occur during business hours (although nighttime work may be needed) and adhere to the City of SeaTac Municipal Code requirements. Long-term noise is not anticipated as a result of the Project.

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

Short-term noise from construction activities will be mitigated by using BMPs. No long-term noise mitigation measures are proposed.

**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 snow storage expansion areas currently consist of bare grounds with some wetlands. Adjacent

properties consist of areas used for snow storage, airport roadways and runways, and stormwater ponds. The Project 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 as a result 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?**

The Project site has not been used as working farmlands or forestlands.

- 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:**

There are no surrounding working farms or forestlands near the Project site.

- c. Describe any structures on the site.**

There are no structures in the immediate area where the Project will take place.

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

No structures will be demolished as part of the Project.

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

The current zoning classification of the Project area is designated by the City of SeaTac as Aviation Operations (AVO). The land use designation will not change as a result of the Project, and there is no expected impact to nearby or adjacent land uses and properties.

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

The current comprehensive plan designation of the site by the City of SeaTac is Airport (AP).

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

The Project area is not within a designated shoreline area.

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

Critical areas on site include wetlands located within the proposed Lagoon 3 Snow Storage Area and wellhead protection areas within the proposed Lagoon 3 Snow Storage Area and North Snow Storage Area.

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

No people would reside in the completed Project. Airport maintenance employees would work in the completed Project site when transporting snow during large snow events.

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

The completed Project will not displace anyone.

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

There will be no displacement impacts as a result of the Project; therefore, no measures are proposed.

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

No measures are proposed because there will be no changes to existing or projected land use as a result of the Project.

- m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of**

**long-term commercial significance, if any:**

There are no nearby agricultural or forestlands; therefore, no measures are proposed.

**9. Housing**

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

The Project does not include the construction of any housing.

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

The Project does not include the elimination of any housing.

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

There will be no housing impacts as a result of the Project; therefore, no measures to reduce or control housing impacts are proposed.

**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?**

The tallest structures proposed for the Project will be light poles located at the North Snow Storage Area. The tallest light pole would be approximately 51 feet tall.

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

Given the location of the Project area and nearby land uses, no views in the immediate vicinity of the Project are expected to be altered or obstructed.

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

No measures are proposed because no aesthetic impacts are expected from the Project.

**11. Light and glare**

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

Lighting will be added to the North Snow Storage site to assist nighttime snow storage operations and to provide a yard light for operations staff working at the lift station. Three light poles will have heights between 35 and 51 feet so that the luminaire matches the elevation of the runway approach lights. A fourth light pole will be lower and located at the lift station for illumination of the lift station control panel. These lights would primarily be operated when the site is needed for snow storage.

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

Light and glare are not expected to be a safety hazard or interfere with views. There will be minimal change from existing conditions.

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

There are no known existing off-site sources of light or glare that may affect the Project proposal.

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

The light poles will use LED fixtures. The luminaires will have cutoff features to reduce light pollution. Lighting is not expected to significantly change existing conditions in the area.



## 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 of the Project.

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

The Project will not displace any existing recreational uses.

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

No impacts to recreation, including recreation opportunities, are anticipated.

## 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 located on or near the site? If so, specifically describe.**

There are no buildings, structures, or sites eligible for preservation registers on the Project site. The nearest cultural resources to the North Snow Storage Area are two historic debris scatters that have been determined not eligible for preservation registers (45KI1572 and 45KI1573). The nearest cultural resources to the South Snow Storage Area, proposed Lagoon 3 Snow Storage Area, and Perimeter Road improvements are Hillgrove Cemetery (45KI889) and the location where two Salish canoes were found submerged in Angle Lake (45KI422 and 45KI423). These resources are outside airport property, more than 0.5 mile from the proposed Project area, and would not be affected.

There are many residential structures older than 45 years in the neighborhoods surrounding the airport property, but none would be affected by the Project.

**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 structures will be modified or demolished for the Project, so the only potential impacts are to archaeological sites during ground disturbance. Ground disturbance is expected to be limited to minor utilities work.

Although there is extensive evidence of Tribal use of the SeaTac area (including the canoes in Angle Lake), the Project is located in the active airport area near runways, taxiways, and utilities infrastructure. The proposed North Snow Storage Area addition location is clearly a built-up fill surface several meters high. The proposed South Snow Storage Area addition and Perimeter Road improvements area are in a heavily filled and graded area between a taxiway and a large fuel storage facility.

The proposed snow storage locations and the road improvements are within the area of a previous cultural resources assessment. The study, for a possible third runway at SEA, found that the areas have low probability for archaeological deposits (Iverson et al. 2000). The North Snow Storage Area is also within the area of a previous study for a bus rapid transit system. It found low probability for archaeological deposits in the current project area (Rooke 2010).

Due to the extensive fill, minimal ground disturbance, and low archaeological probability, no impacts are expected to archaeological resources.

**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 Project was reviewed by a qualified professional archaeologist. Sources consulted included previous research, historic and modern maps and photographs, and geotechnical information.

- 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.**

No impacts are expected and no mitigation is proposed.

#### **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.**

Vehicles access the Main Terminal from North Airport Expressway via Arrivals Drive and Departures Drive. The Project sites are located within limited access areas of the airport and no public streets or highways serve the proposed snow storage sites.

- 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 Project site is not specifically served by public transportation, but SEA is served by public transportation. The nearest public transportation site is located near North Airport Expressway (i.e., Sound Transit Link light rail and King County Metro) a quarter mile east of the Main Terminal adjacent to the SEA parking garage.

- c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate?**

There will be no additional parking spaces created or parking spaces eliminated by the Project.

- d. 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 Project includes widening of the existing Perimeter Road near the proposed Lagoon 3 Snow Storage Area in order to accommodate use by heavy vehicles and vehicles with larger turning radii. The road will be widened to the east by approximately 12 feet near the south end of Runway 16L-34R. Perimeter Road will be widened on the west side of Runway 16L-34R up to Gate W-45. The Project does not include any new or improved pedestrian, bicycle, or state transportation facilities.

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

The Project will not require the use of water, rail, or air transportation. The Project will occur in the vicinity of air transportation for SEA.

- f. 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 non-passenger vehicles). What data or transportation models were used to make these estimates?**

The number of vehicular trips generated by the Project would vary based on the amount of snowfall received at the airport that must be transported to the snow storage areas. All trips would be done by trucks within SEA property, and peak volumes would occur in the winter months when snowfall occurs. In general, the Project is not anticipated to lead to an increase in vehicular trips.

**g. 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.**

The Project will not interfere with, affect, or be affected by the movement of agricultural and forest products on roads or streets in the area.

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

The roadways used to haul snow are not public roadways. No transportation impacts are expected as a result of the Project so no measures are proposed.

**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.**

The Project will not require a need for public services beyond what is currently available at SEA.

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

There are no measures proposed to reduce or control direct impacts on public services.

**16. Utilities**

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

**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.**

The existing IWS lift station at the North Snow Storage Area will be upgraded with an expanded wet well and pump replacement so that meltwater is collected in the IWS lift station and pumped to the IWS. A pipe will be installed at the Lagoon 3 Snow Storage Site to collect the meltwater to drain to Lagoon 3 where it will be treated.

**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.

Signature: Steve Rybolt  
Name of signee: Steven Rybolt  
Position /Organization Senior Environmental Program Manager, Port of Seattle  
Date Submitted: September 12, 2022

**References:**

Clearway Environmental, 2022. Final 2022 Wetland Redelineation Report: Planned Lagoon 3 Snow Storage Facility. Prepared for Port of Seattle. May 2022.

Ecology (Washington State Department of Ecology), 2019. Stormwater Management Manual for Western Washington. Washington State Department of Ecology, Water Quality Program. Publication Number 19-10-021. July 2019.

Rooke, Laura, 2010. Cultural Resources Discipline Report for the Burien to Renton RapidRide Project- F Line, NEPA Documented Categorical Exclusion; Final Historical, Archaeological and Cultural Resources Discipline Report. On file at the Department of Archaeology and Historic Preservation, Olympia, WA.

Iverson, David, Leonard A. Forsman, Dennis E. Lewarch, and Lynn L. Larson, 2000. Port of Seattle, Seattle-Tacoma International Airport Master Plan, Proposed Third Runway Archaeological Resources and Traditional Cultural Places Assessment. On file at the Department of Archaeology and Historic Preservation, Olympia, WA.

**APPENDIX A**

**Greenhouse Gas Emissions Worksheet  
Supplemental Information for SEPA Environmental Checklist**

<b>GHG Emission Sources</b> (CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, HFCs, PFCs, SF <sub>6</sub> ) <sup>1</sup>	<b>What sources are likely from the proposal?</b> <i>List specific type of activities, and duration of emissions</i>	<b>What is the quantitative or qualitative assessment of those emissions?</b>	<b>What available mitigation will avoid or reduce those emissions?</b>
On-Road Mobile Sources	Trucks hauling snow to the snow storage sites	Emissions will vary by year depending on amount of snowfall received.	No net increase in emissions is expected to result from the Project since the Port already hauls snow to snow storage areas during large snow events; therefore, no mitigation is proposed.
Non-Road Mobile Sources	Not Applicable	Not Applicable	
Stationary Combustion	Not Applicable	Not Applicable	
Industrial Processes	Not Applicable	Not Applicable	
Fugitive Emissions	Not Applicable	Not Applicable	
Agricultural Emissions	Not Applicable	Not Applicable	
Land Disturbance	Removal of wetlands and vegetation for snow storage expansion.	Approximately 0.8-acre of wetlands will be impacted by the Project.	Wetland re-establishment will likely be implemented as mitigation for wetland impacts. Wetland mitigation will be developed in coordination with the U.S. Army Corps of Engineers.
Purchased Electricity and Steam	Not Applicable	Not Applicable	
Construction	Construction vehicles and equipment	Temporary and short-term use associated with construction-related emissions are not expected to be significant.	Contractor performing construction and demolition will be required to maintain and repair all equipment in a manner that reasonably minimizes emissions.
Extraction of Purchased Materials	Not Applicable	Not Applicable	
Processing of Purchased Materials	Not Applicable	Not Applicable	

<b>GHG Emission Sources</b> (CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, HFCs, PFCs, SF <sub>6</sub> ) <sup>1</sup>	<b>What sources are likely from the proposal?</b> <i>List specific type of activities, and duration of emissions</i>	<b>What is the quantitative or qualitative assessment of those emissions?</b>	<b>What available mitigation will avoid or reduce those emissions?</b>
Transportation of Purchased Materials	Asphalt and ecology blocks are the primary components of the Project. The Port will work with the contractor to source these components locally, to the extent practicable.	Temporary and short-term use associated with construction-related emissions are not expected to be significant.	Contractor transporting equipment will be required to maintain and repair all vehicles in a manner that reasonably minimizes emissions.
New Facility Operations	Not Applicable	Not Applicable	
Other Mobile Emissions	Not Applicable	Not Applicable	
Water Use and Wastewater Disposal	Not Applicable	Not Applicable	
Waste Management	Not Applicable	Not Applicable	
Product Use – New Pavement	There will be an increase of 3.03 acres of impervious surfaces for the snow storage areas and road widening.	In total, the estimated lifespan GHG emission (embodied, transportation, and energy) is 6,599 MTCO <sub>2</sub> e.	No mitigation is proposed.

*\*Calculated via City of Seattle Department of Planning and Development SEPA GHG Emissions Worksheet.*

<b>CH<sub>4</sub></b>	Methane	Landfills, production and distribution of natural gas & petroleum, fermentation from the digestive system of livestock, rice cultivation, fossil fuel combustion, etc.
<b>N<sub>2</sub>O</b>	Nitrous Oxide	Fossil fuel combustion, fertilizers, nylon production, manure, etc.
<b>HFCs</b>	Hydrofluorocarbons	Refrigeration gases, aluminum smelting, semiconductor manufacturing, etc.
<b>PFCs</b>	Perfluorocarbons	Aluminum production, semiconductor industry, etc.
<b>SF<sub>6</sub></b>	Sulfur Hexafluoride	Electrical transmissions and distribution systems, circuit breakers, magnesium production, etc.