EPA REGION 10
FY2022 BROWNFIELDS ASSESSMENT COOPERATIVE AGREEMENT
Community-Wide
WORK PLAN

FOR

Port of Tacoma
Period of Performance (4 years): October 1, 2022 – September 30, 2026

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Submitted by

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FY2021 WORK PLAN FOR BROWNFIELDS ASSESSMENT COOPERATIVE AGREEMENT
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1. INTRODUCTION

The Port of Tacoma's (the Port, applicant) mission is to invest in the harbor and community to promote prosperity, trade, and jobs, while protecting and enhancing the environment. The EPA Brownfield Grant will enable the Port to foster new business and job opportunities, enhance environmental quality and access to open spaces, and address environmental justice (EJ) disparities in the surrounding community. The Port plans to use EPA Brownfield Grant funds to bring brownfields located within the Tideflast Manufacturing Industrial Center (Tideflats), located in the City of Tacoma and the Puyallup Indian Reservation, back into productive use with new business and family wage jobs. The Port plans to complete a Tideflats site inventory, up to eight (8) Phase I and Phase II Environmental Site Assessments within the Target Area, and cleanup and reuse planning, including market analyses at up to five high-priority Brownfield sites.

With the Target Area's long industrial history, most of which predates environmental regulation and an understanding of environmental impacts, comes a legacy of contaminated brownfields. The Target Area brownfields are vacant/underutilized industrial sites with suspected contamination from a range of operations from shipbuilding and chemical manufacture to fishing and food processing. These industries have involved the transport, manufacture, storage, use, and disposal of fuels, petroleum, chlorinated solvents, metals, and waste materials. Aging buildings on Target Area brownfields likely contain asbestos and lead paint. A portion of the Tideflats is within the Commencement Bay federal Superfund site (no EPA brownfield grant funds will be spent on sites within the Superfund boundaries). In addition to the Commencement Bay Superfund site, Washington Department of Ecology (Ecology) records show the Target Area is impacted by 146 Confirmed and Suspected Contaminated Sites, 80 Leaking Underground Storage Tanks, and 1,235 Spills in addition to landfills, institutional/engineering control sites, and hazardous waste transport/disposal sites. Over 500 acres of land (roughly 14%) in the Tideflats is vacant with potential contamination from onsite or adjacent uses.

Minority communities are concentrated in the neighborhoods closest to the Target Area and its potential brownfield contaminants. Target Area brownfields are contributing to high rates of poverty and unemployment in these communities by deterring businesses from locating, expanding, and creating local jobs in the Tideflats. Vacancy in the Target Area is attracting transient use, potentially exposing people to contaminated brownfields and resulting in dumping, vandalism, and risks from uncontrolled campfires. Brownfield contamination is also a barrier to the Port and community priorities of preserving and restoring greenspace and marine/riparian habitat. The Target Area is also at risk from climate change related sea level rise. Portions of the Tideflats are within a federally designated floodplain, and Tacoma is projected to see 1.5 to 3.3 feet of sea level rise by 2100.[a]

The City of Tacoma, lands belonging to the Puyallup Tribe of Indians, and the Target Area identified in this work plan are intertwined, with overlapping boundaries and economic conditions. Unemployment and poverty are impacting the ability of the Port and local stakeholders to invest in brownfield redevelopment. Poverty is prevalent in CT 602 (which includes most of the Target Area as well as residential areas to the south) where the poverty rate is nearly four times the statewide rate. Poverty in

[a] https://wacoastalnetwork.com/research-and-tools/sea-level-rise/

Tacoma and on Puyallup lands is also higher than statewide. In both the Target Area and on Puyallup Lands, the 5-year unemployment rate is nearly 50% higher than state and national rates.

1.1 Project Description, Goals and Objectives

This section provides an overview of the project including the program goals. It describes the project location and provides background information on the community. The Port's priority sites are identified and a reuse strategy is provided.

1.1.1 Program Goals

The EPA Brownfield Grant will enable the Port to foster new business and job opportunities, enhance environmental quality and access to open spaces, and address environmental justice (EJ) disparities in the surrounding community. The Port's brownfield reuse and economic development strategy is to support economic growth that incorporates green/clean innovations, and enhance environmental health through remediation, habitat restoration, and public greenspace access. Due to the Tideflats' long industrial history, Target Area brownfields are vacant/underutilized industrial sites with suspected contamination from a range of operations from shipbuilding and chemical manufacture to fishing and food processing. These industries have involved the transport, manufacture, storage, use, and disposal of fuels, petroleum, chlorinated solvents, metals, and waste materials. The reuse plans align with and are driven by the Port's mission, values, and goals outlined in the 2021-2026 Strategic Plan which prioritize environmental stewardship, economic vitality, and community connections. Strategic Plan strategies to advance these goals align with the reuse plans: 1) address contamination and protect human health; 2) reduce air pollution, emissions, and climate change impacts; 3) invest in stormwater quality improvements; 4) create and enhance wetlands and habitat; 5) strategically acquire property to stimulate new business and new living wage jobs; and 6) build stakeholder relationships through direct engagement.

1.1.2 Location and Community Background

The Port of Tacoma is a public port district established in 1918 in Pierce County, Washington. Port operations are concentrated within a 6-square-mile (mi^2) waterfront industrial area: the Tacoma Tideflats Manufacturing Industrial Center (Tideflats, Target Area, census tract [CT] 602[b]) located within the City of Tacoma and the Puyallup Indian Reservation. The Tideflats is situated at the mouth of the Puyallup River on Commencement Bay, at the southern end of the Pacific Northwest's Puget Sound. The Target Area is surrounded to the west by downtown Tacoma, to the south by mixed industrial, commercial, and residential uses, to the east by residential development, and to the west by Commencement Bay. Though the Port is a separate entity from the city, county, and Tribe, they work together to spur economic growth and preserve natural areas.

[b] Full census tract number: 53053060200

The Tideflats has a rich natural, cultural, and commercial history. The Puyallup River flows west from Mount Rainier through the Tideflats and into Commencement Bay. The Puyallup and other Tribes have lived along the river for centuries. Euro-American explorers settled in the area in the 19th century drawn by the bay's deep harbor and surrounding forests. By the time the City of Tacoma was founded on the bay in 1872, the Tideflats was already developed with a busy sawmill and port exporting lumber to domestic and international markets.

In 1873, the first transcontinental railroad in the northern US chose Tacoma as its western terminus due to Commencement Bay's naturally deep waters. Tacoma was coined the place "where the rails meet the sails" and the Tideflats' role as a shipping and manufacturing hub was established. Tacoma's population boomed from 1,098 in 1880 to 83,000 by 1910. The Port was originally privately controlled, but in 1911, the state enabled citizens to establish public port districts and have a say in their development. In 1918, voters established the Port of Tacoma. The Port purchased 240 acres of the Tideflats and began expanding piers and terminal facilities to serve the thriving shipping and manufacturing industries. Through the 20th century, operations in the Tideflats have diversified to include industries ranging from smelting, chemical manufacture, and shipbuilding to fishing, food processing, and cold storage. Today, the Tideflats are a regional economic engine supporting 42,000 jobs and nearly $3 billion in economic activity. The Port continues to strategically acquire land in the Tideflats to ensure sustainable growth, economic vitality, and environmental stewardship, and today owns about 50% of the Target Area. The other half is privately owned land, including many smaller, underutilized potentially contaminated brownfields that present revitalization opportunities.

1.1.3 Priority Sites

The Port has prioritized several brownfields due to their underutilization, suspected contamination, potential to stimulate economic growth, and opportunities for habitat protection and enhancement.

Central Peninsula Site: The Port has prioritized a cluster of smaller vacant/underutilized brownfields in the heart of the Target Area for assembly into the 244-acre Central Peninsula Site due to their underutilization and strategic central location for expanding Port capacity, attracting new business, and spurring job creation. Past and current uses include metal fabrication, engine servicing, warehousing, outdoor storage, and materials loading and distribution on a rail line that bisects the area. Suspected contaminants include metals, solvents, and petroleum as well as asbestos and lead paint in buildings.

- 1118-1702 Port of Tacoma Road
- 1940-2502 E. 11th Street
- 1132-1721 Thorne Road
- 2235-2335 Ross Way
- Tax lots with no situs address: 6965000370, 6965000410, 6965000411, 6965000423, 320031011, 321344025, 2275200650, 5260000030, 5260000040

459 E 15th Street (aka Wheeler Osgood, future Port Maritime Campus): The vacant 3.5-acre 459 E 15th Street brownfield is a priority due to residual contamination that is a barrier to the Port's plan to reuse the site as the Port's future Maritime Center campus with associated habitat restoration. Petroleum contamination has been identified in soil and groundwater from past fuel storage and distribution, but additional assessment is needed to evaluate the extent of impacts. Heavy metals are suspected from industrial slag used in rail beds and foundry operations. Asbestos and lead paint are suspected in aging dilapidated structures on the site.

Marc Avenue Area: A third high priority brownfield is the Marc Avenue Area, a 70-acre cluster of vacant/underutilized waterfront and upland brownfields with contamination suspected to include metals, fuels/petroleum, and solvents from a former landfill, food processing operations, materials storage and distribution, asbestos and lead paint in buildings, and an adjacent rail line. In addition to its potential to spur economic development, the Marc Avenue Area is a high priority due to known solvent impacts in groundwater that may be impacting the adjacent Puyallup River, as well as opportunities to restore riparian habitat.

- 1610 Lincoln Avenue
- 1614 Lincoln Avenue
- 2021 Marc Avenue
- 2041 Marc Avenue
- 2042 Marc Avenue

1.1.4 Reuse Strategy & Alignment with Revitalization Plans

The Port's brownfield reuse and economic development strategy for the high priority sites, and throughout the Tideflats, is to support economic growth that incorporates green/clean innovations, and enhance environmental health through remediation, habitat restoration, and public greenspace access. This strategy aligns with several Port initiatives including: 1) **2020 Northwest Ports Clean Air Strategy**, a collaboration between the Ports of Seattle and Tacoma and the Vancouver Fraser Port Authority in British Columbia that presents a plan to phase out emissions from Port activities by 2050; 2) **2021 Stormwater Management Program Plan** that outlines steps to educate existing and new Port tenants on stormwater quality management practices and requirements, and supports Low Impact Development--a stormwater and land use strategy that emphasizing conservation and use of natural features for stormwater management--for brownfield redevelopment projects; and 3) **Habitat Mitigation Banking** that will restore/create habitat as brownfields within the Tideflats are redeveloped. The reuse plans for Target Area brownfields also honor the environmental stewardship and habitat restoration goals embedded in the Port's mission and in agreements between the Port and the Puyallup Tribe and documented in the 1990 **Puyallup Land Claims Settlement Act.**

The Port's reuse strategy for the **Central Peninsula Site** and **Marc Avenue Area** brownfields is to use the Brownfield Grant for due diligence to allow the Port to acquire sites for cleanup and assembly into parcels suitable for redevelopment with larger-scale operations that will have greater potential to expand and modernize operations and spur economic growth and living

wage jobs. As part of this strategy, the Port will work with new and expanding businesses to incorporate clean stormwater, air, and energy practices, features, and technology during redevelopment. The Port plans to use Brownfield Grant funds to evaluate whether groundwater contamination from past operations at the Marc Avenue Area sites is impacting the Puyallup River and to plan for cleanup as needed. The Marc Avenue vision includes development of the final phase of habitat restoration in the 13.5-acre Gog-le-hi-te Wetland Complex, the Port's oldest restoration site.

The projected reuse of the **459 E 15th Street** high priority site is as the future Port Maritime Center campus envisioned to house Port staff, community amenities, and public open space. The Maritime Center will be built in line with the Port's **Sustainable Building Policy** currently in development (part of the **Clean Air Implementation Plan 2021-2025**). The policy will guide the inclusion of green building, energy efficiency, and stormwater management approaches into the design construction of the campus as well as other construction, remodel, and infrastructure projects in the Tideflats. The needs and benefits of creating the Maritime Center will be evaluated in a future Site Master planning process. The campus is envisioned to include habitat restoration and public open space along the adjacent Thea Foss waterway--a recreational and scenic amenity that links the Tideflats to downtown Tacoma. The Port's offices are currently located at the center of the Tideflats with limited access other than by car. The new location is just over a bridge from downtown and on bike/pedestrian and public transit routes, cutting down on the need for vehicle use and associated carbon emissions and pollution.

The projected reuses for the high priority brownfields reflect land use priorities of the Port, municipal partners, and the community. The Port is currently collaborating with the community, City of Tacoma, Puyallup Tribe, nearby residents, and regional stakeholders on the **Tacoma Tideflats Subarea Plan** creating a shared vision and approach to land use and investment. During visioning sessions in 2021, stakeholders identified sustainable economic growth and environmental restoration as the community's top land use priorities for the Tideflats. The reuse plans also align with and are driven by the Port's mission, values, and goals outlined in the **2021-2026 Strategic Plan** which center around environmental stewardship, economic vitality, and community connections. Strategic Plan strategies to advance these goals align with the reuse plans: 1) address contamination and protect human health; 2) reduce air pollution, emissions, and climate change impacts; 3) invest in stormwater quality improvements; 4) create and enhance wetlands and habitat; 5) strategically acquire property to stimulate new business and new living wage jobs; and 6) build stakeholder relationships through direct engagement. The Port solicited and incorporated community input into the Strategic Plan to ensure it reflects the goals and values of all stakeholders.

1.2 Organizational Structure and Responsibilities

The Port has sufficient capacity for all technical and administrative tasks associated with successfully managing an EPA Brownfield Grant. Port staff have expertise in areas relevant to this project including environmental, engineering, planning, outreach, legal, finance, and grant management. Port staff have

experience moving brownfields from the initial assessment and planning phases through the redevelopment process, and the capacity to managing multiple projects simultaneously, adhering to work plan budgets and timelines. These professionals routinely manage Port projects with complex multi-year scopes of work and budgets in excess of $500K. The Port has a human resources department with experience and expertise to recruit replacements for any staff that depart during the grant term.

The grant project will be managed by Port Environmental Senior Project Manager (PM), Rob Healy. Mr. Healy will lead all grant activities, with support from Assistant PM Sarah Weeks. Mr. Healy will be responsible for technical oversight of assessment-related activities from the Port of Tacoma. Mr. Healy will oversee the procurement of a Qualified Environmental Professional (QEP) to supplement the Port's expertise and capacity. He will manage all work completed by the QEP. He will also reach out to project stakeholders to establish the Brownfields Advisory Committee (BAC) and will lead the BAC, which will meet throughout the project to provide community input and feedback and ensure completion in three years.

1.2.1 Port Project Team

The Port has assembled a project team to oversee implementation of the brownfields assessment project.

- **Robert Healy, Port Senior Environmental Manager**: Mr. Healy will be the Port's Project Manager. Mr. Healy has 25 years of experience and manages the Port's environmental remediation portfolio for all Port owned property. He manages Port environmental cleanup sites and advises Port Real Estate regarding environmental liabilities prior to property acquisition. Mr Healy will work closely with the Port's Communications Dept. in conducting community outreach for the project.
- **Sarah Weeks, Port Environmental Project Manager**: Ms. Weeks will serve as Assistant Project Manager. Since joining the Port in 2016, she has managed all technical and financial aspects of several Port environmental assessment and cleanup projects, from preliminary due diligence to cleanup implementation. She has also successfully managed Ecology Remedial Action and Integrated Planning Grant projects.
- **Dierdre Wilson, Northwest Seaport Alliance (NWSA) Senior Planning Manager:** Ms. Wilson has 25 years of experience in planning and manages land use and transportation planning for the Port and NWSA (a joint agency of the Ports of Tacoma and Seattle). She managed development of the Port's 2021-2026 Strategic Plan and is currently managing development of the Tacoma Tideflats Subarea Plan. Ms. Wilson will work with Mr Healy and Ms. Weeks to ensure all re-use planning and area-wide planning are in alignment with greater organizational planning efforts and priorities.
- **Laura Guenthard, Port Senior Accountant:** Ms. Guenthard will serve as the financial manager for the grant**,** managing grant accounting, reporting and audit support. Ms. Guenthard has over 25 years of experience in accounting and finance and has been with the Port for over eleven years.

1.2.2 Agency Oversight

EPA grant oversight will managed by Angel Ip, the EPA Brownfield Project Manager. Regional regulatory and technical oversight will be provided by the Washington State Department of Ecology (Ecology) and Tacoma-Pierce County Health Department (TPCHD). Properties will be enrolled in Ecology's Voluntary Cleanup Program (VCP) as needed. The VCP helps property owners complete indendent cleanups by providing technical assistance. TPCHD Health Code requires historic underground storage tanks (USTs) to be removed and any remanant contamination to be addressed. If historic USTs are identified during the course of grant scope implementation they will be addressed per Ecology and TPCHD requirements.

1.2.3 Brownfields Advisory Committee (BAC)

The Port will form a Brownfield Advisory Committee (BAC) inviting the organizations listed below and other relevant groups to join. The role of these organizations is to expand the community's ability to participate in brownfield revitalization by: 1) working with the Port to build community capacity and understanding around brownfields and revitalization approaches; 2) encouraging community engagement by sharing project information through their preferred and effective channels such as standing meetings, social media, and newsletters; 3) providing input on remedial approaches to minimize impacts on surrounding areas; and 4) providing the Port with input from the organization and community on reuse plans.

- **City of Tacoma**: The City will help the Port with engagement and leveraging brownfield investment opportunities. *Elly Walkowiak, Assistant Director, 253-591-5209, ewalkowiak@cityoftacoma.org.*
- **Puyallup Tribe:** The Tribe will support engagement and provide input on brownfield cleanup and reuse plans that align with their goals. *Char Naylor, Water Quality Manager, 253-680-5520, char.naylor@puyalluptribe-nsn.gov.*
- **Tacoma Pierce County Health Dept:** The Health Department will provide technical support evaluating the health impacts of brownfields and their cleanup/reuse. *Rob Olsen, 253-649-1856, rolsen@tpchd.org.*
- **New Tacoma Neighborhood Council** (*Jordan Burman, info@newtacomaneighbors.org*) and **North End Neighborhood Council** (*Yvonne McCarty, yvonne.mccarty@comcast.net*): The Neighborhood Councils will provide input on brownfield cleanup and reuse from the local residents' perspective.
- **Manufacturing Industrial Council for South Sound:** The MIC will provide perspective on the economic and local business impacts of brownfield cleanup reuse plans. *Frank Boykin, Jr., frankb@tacomachamber.org.*
- **350 Tacoma:** 350 Tacoma is a grassroots movement focused on climate justice and social justice. They will provide input on opportunities for brownfield redevelopment that support addressing the climate crisis and support community engagement. *Janeen Provazek, provaj@hotmail.com*
- **Communities for a Healthy Bay:** CHB is a local environmental group, engaging the community in the cleanup and protection of Commencement Bay. CHB will provide input on brownfield reuse to support environmental health of Commencement Bay/Puget Sound and will support engagement by sharing project information through their network. *Marquis Mason: mmason@healthybay.org, Erin Dilworth: edilworth@healthybay.org.*
- **Sea Scouts Youth Marine Foundation:** Sea Scouts promotes citizenship and marine service experiences for local youth. They will provide input on opportunities for brownfield reuse to support youth training and workforce development. *Monique Valenzuela, 253.572.2666, monique@tacomaymf.org.*
- **Mi Centro**: Mi Centro supports the wellbeing and engagement of Latinx and Indigenous communities. Mi Centro will provide engagement support to help ensure the grant project is meaningfully connected to local Latinx and Indigenous communities. *Dr. Bernal C. Baca, Executive Director, bbaca@clatino.org, 253-572-7717, ex:101.*
- **Tacoma Urban League:** TUL's mission is to assist Black and other underserved urban residents in achieving social equality and economic independence. TUL will provide engagement support to help ensure the grant project is meaningfully connected to the local Black and underserved communities. *T'Wina Nobles, President/CEO, president@thetacomaurbanleague.org, (253) 383-2007.*
- **Asia Pacific Cultural Center**: The APCC mission is connecting Asian communities through art, culture, education, and business. APCC will provide engagement support to help ensure the grant project is meaningfully connected to their network. *Faaluaina Pritchard, Executive Director, faaluaina@asiapacificculturalcenter.org, 253-590-7457.*
- **University of Washington School of Urban Studies**: UW is interested in the intersection of brownfield reuse climate resilience. The Port will work with UW to obtain input on brownfield opportunities and plans and involve students when possible. *Anne Taufen, Associate Professor, atw5@uw.edu, 253-692-4319.*
- **WA Dept. of Ecology:** Ecology will provide technical assistance as needed and will assist with leveraging additional funding. *Margo Thompson, margo.thompson@ecy.wa.gov, 360-480-9301.*

1.3 Project Outputs and Outcomes

Pursuant to EPA Order 5700.7, "Environmental Results under EPA Assistance Agreements," EPA requires that grant recipients adequately address environmental outputs and outcomes. Outputs refers to measurable quantitative or qualitative activities, efforts, deliverables, or work products that the applicant proposes to undertake during the project period (e.g., quarterly progress reports, assessment of one brownfields site). Outcomes refer to the result, effect, or consequence that will occur from carrying out the activities or outputs of the project. Outcomes may be environmental, behavioral, health-related, or programmatic; must be quantitative; and may not necessarily be achievable during the project period. EPA will work with cooperative agreement recipients (CARs) to demonstrate the impact of assessing and cleaning up brownfields by measuring the amount of land on which environmental threats have been determined, what risks have been addressed, and the number of acres made ready for reuse. Outcomes from a grant might include the number of jobs leveraged and other funding leveraged through the economic reuse of properties, or acres of greenspace created for communities.

1.3.1 Outputs

Task 1: Project Management and Reporting:

- Twelve (12) quarterly progress reports (QPRs)
- Regular EPA Assessment, Cleanup & Redevelopment Exchange System (ACRES) database updates
- Three (3) Disadvantaged Business Enterprise (DBE) and three (3) federal financial reports (FFRs)
- Final performance report
- All other reporting required by the Cooperative Agreement with EPA will be completed in accordance with Cooperative Agreement schedule requirements.

Task 2: Community Engagement:

- One (1) Public Involvement Plan (PIP)
- Brownfield Advisory Committee (BAC) (quarterly) and stakeholder (regular) meetings, presentations, handouts, and notes
- Two to three (2-3) press releases
- Two to three (2-3) fact sheets
- Regular social media posts

Task 3: Site Inventory and Phase I and II Environmental Site Assessments (ESAs):

- Tideflats Brownfields Inventory Report
- Eligibility forms
- Project-wide Quality Assurance Project Plan (QAPP), complete by December 2022, and site-specific Sampling & Analysis Plans (SAPs) for EPA approval prior to Phase II ESAs
- Access agreements
- Health and Safety Plans
- Phase I and II ESA reports

Task 4: Cleanup and Reuse Planning

- Up to five (5) site-specific brownfield cleanup and/or reuse plans including market analyses where appropriate.

1.3.2 Outcomes

Bringing Target Area brownfields back into productive use is critical for the economic health of the Port and region. Tacoma's demand for industrial space continues to exceed its supply[c]. Using grant funds to prepare brownfields for reuse will fill the demand for industrial land and leverage the Port's multiplier effect on job creation. Every job in the Port directly related to cargo movement supports an additional 2.9 jobs in the state—a rate higher than Washington's aerospace industry and the agriculture and food processing sectors. At a job creation rate of 11 jobs per acre (based on a 2017 Economic Impact Analysis), reactivation of the 244-acre Central Peninsula Site alone has the potential to create 2,684 jobs in the Tideflats and an additional 5,100 associated jobs statewide[d]. New businesses will be incentivized to create living wage jobs as most of the Target Area is a designated "distressed area" where businesses can receive a $2,000 credit for each new employee with annual wages <$40K or $4,000 for each new employee with wages >$40K. Business in the Port generates over $100 million in annual state taxes that fund economic development from education and workforce development to infrastructure projects. In addition to stimulating new businesses and jobs, redevelopment of Target Area brownfields will expand this tax base and the community services the state can provide.

Project outputs and short- and long-term outcomes will be tracked and reported to EPA via quarterly progress reports (QPRs), Assessment, Cleanup, & Redevelopment Exchange System (ACRES) and the Final Close-Out Report. QPRs will list goals accomplished and activities planned for the next quarter. At a minimum, the Port will track the following outputs: (1) # of approved sites; (2) # of Phase I ESAs; (3) # of Phase II ESAs and building materials surveys; (4) # of ABCAs and/or cleanup plans; (5) number of site and area reuse plans such as conceptual designs, brownfield inventories, economic feasibility studies, and redevelopment roadmaps; and (6) # of community/stakeholder meetings. Each quarter, the Port will review outputs against goals and make any adjustments needed to align project accomplishments with the Brownfield Grant Work Plan and stakeholder priorities. The Port will also track short- and long-term outcomes such as: (1) # of sites and acres cleaned up and/or redeveloped; (2) # of property transfers; (3) private investment/leveraged funding; (4) # of new businesses and jobs created on former brownfields; (5) increase in property value/tax-based revenue; (6) green/clean stormwater, air, and energy aspects of brownfield reuse projects; (7) acres of habitat restored, species served/protected. The Port will update ACRES beyond the project end date to ensure outcomes are captured as priority brownfields are redeveloped.

[c] https://news.theregistryps.com/berkeley-partners-purchase-2-69-acre-industrial-property-near-port-of-tacoma-for-14-55mm/

[d] per the Economic Impact Report (*cai.nwsa-marine-cargo-economic-impacts-2019.pdf (amazonaws.com) and Port Facilities Guide (nwsa_facilitiesservicesguide_digital_0.pdf (amazonaws.com), 20,100 jobs are directly related to movement of containerized cargo, automobiles, breakbulk, logs, and other cargo, across 1,758-acres of marine cargo facilities.

2. PROJECT TASK DESCRIPTIONS

This Section describes each task and sub-task that will be performed as part of this project. The primary funding source for all tasks is EPA cooperative agreement funds; however, the Port will leverage other resources as opportunities become available.

The Port is a public agency eligible for a range of grants and other forms of brownfield assistance. Ecology is one of the best-funded state agencies for brownfield cleanup and reuse projects in the US. The Port has an excellent track record of leveraging Ecology funding, including 24 Remedial Action Grants to date, totaling over $38M for cleanups in the Tideflats. The Port recently received $300K Ecology Integrated Planning Grant for future cleanup of selected areas of the 459 E 15th Street high priority brownfield. Additional cleanup funding for the high priority brownfields and other sites is available as Ecology Remedial Action Grants and Loans, Area-Wide Groundwater Investigation Grants, and Oil Spill Restoration Funds. The Port can also use the EPA Brownfield Grant to leverage Ecology dollars to fund the green/clean redevelopment plans in the Tideflats, including grants for clean diesel, stormwater management, watershed restoration, and wetland conservation. The Port can leverage the Washington Dept. of Commerce Brownfield Revolving Loan Fund for cleanup and redevelopment projects, and Community Economic Revitalization Board (CERB) grants and loans that provide grants for port facilities, public buildings (like the new Maritime Center), stormwater management systems like those that will be integrated into brownfield redevelopment, and activities such as economic analysis to develop brownfield redevelopment strategies. The Port can also leverage Washington's Wildlife and Recreation Program grants which funds projects that protect habitat and preserve working lands, and habitat restoration grants from federal agencies such as the National Oceanic and Atmospheric Administration and US Fish and Wildlife Service. The Port can leverage grants and loans for green building and energy efficiency on brownfields through the US Dept. of Energy and Washington Dept. of Commerce.

Along with the Brownfield Grant and these supplemental funding sources, the Port will use incentives to leverage private investment in Target Area brownfields. The Target Area is in a Community Empowerment Zone where businesses can receive tax credits for hiring new employees, including larger credits for hiring higher salaried employees. The Port will ensure that potential brownfield developers are aware of the range of tax incentives offered by the WA Dept. of Revenue to spur private development including deferrals, reduced business and occupation rates, exemptions, and credits.

The following project tasks, briefly introduced under Section 1.3.1, are proposed.

Task 1: Project Management and Reporting:
Task 2: Community Engagement:
Task 3: Site Inventory and Phase I and II Environmental Site Assessments (ESAs):
Task 4: Cleanup and Reuse Planning:

If, over the course of work plan implementation, properties require enrollment in Ecology's Voluntary Cleanup Program, technical oversight fees will apply.

2.1 TASK 1 – PROJECT MANAGEMENT AND REPORTING

The Port will procure a Qualified Environmental Professional (QEP) and work with them to monitor project scope, schedule, and budget. The Port is responsible for compliance with grant terms and conditions including reporting and drawdowns. The Port will procure an environmental contractor by the end of 2022. Monthly drawdowns, quarterly progress reports (QPRs), annual Disadvantaged Business Enterprise (DBE) and federal financial reports (FFRs), a final report, and all other reporting required by the Cooperative Agreement with EPA will be completed in accordance with Cooperative Agreement schedule requirements.

- *Objective of the task:* Monitor project scope, schedule, and budget and complete required reporting.
- *Task lead:* Port of Tacoma PM, with contractor support.
- *Milestones and deliverable(s):* The Port will procure an environmental contractor by November 2022. Monthly drawdowns, quarterly progress reports (QPRs), annual Disadvantaged Business Enterprise (DBE) and federal financial reports (FFRs), a final report, and all other reporting required by the Cooperative Agreement with EPA will be completed in accordance with Cooperative Agreement schedule requirements.
- *Estimated submittal or completion dates:* The Port will procure an environmental contractor by the end of 2022. Project management and reporting will be ongoing throughout the grant term.

2.1.1 Project Management

Brownfields assessment will be managed in accordance with this work plan. The Port will procure a Qualified Environmental Professional (QEP) and work with them to monitor project scope, schedule, and budget, with the Port responsible for compliance with grant terms and conditions including reporting and drawdowns. Such tasks will include monthly drawdowns, quarterly progress reports (QPRs), annual Disadvantaged Business Enterprise (DBE) and federal financial reports (FFRs), a final report, and all other reporting required by the Cooperative Agreement with EPA, which will be completed in accordance with Cooperative Agreement schedule requirements.

2.1.2 Project Reporting - Periodic

Quarterly Progress Reports are within 30 days of the end of each federal fiscal quarter ending December, March, June, and September (due by January 30, April 30, July 30, and October 30). The Port will submit property specific information reflecting site specific activities within 30 days after the end of the Federal fiscal quarter in which the event occurred. The Port will enter ACRES to report the initiation of assessment and completion of assessment activities. Additional requirements for Disadvantaged Business Enterprises (DBE/MBE/WBE) Reporting and Federal Financial Reporting (SF-425) will be followed per the terms of the cooperative agreement.

2.1.3 Staff Training/Travel

Two Port staff, Rob Healy and Sarah Weeks, will attend one national and one regional brownfield conference during the terms of the grant period, emphasis will be placed on attending available conferences as soon as possible after the commencement of the grant term.

2.1.4 Contractor Procurement

The Port will competitively procure a QEP with experience in EPA Brownfield Grant projects in compliance with 2 Code of Federal Regulations (CFR) Part 200 and 2 CFR Part 1500. The Port has robust internal policies and practices governing fair and competitive procurement of services. The Port routinely conducts competitive procurements for contractors including engineering and consulting services and can readily procure any additional expertise and resources needed forthe project.

2.1.5 Final Performance Report

The Port will prepare a final performance report and for submittal to the EPA Brownfields Project Manager within 120 calendar days after the expiration or termination of the award. The report will generally contain the same information as the Quarterly Progress Reports but will cover the entire project period and may include before and after photos of the assessment of the site. In addition, the Final Performance Report will specifically address lessons learned by the Port or Port contractor(s) in implementing the brownfields assessment(s), successes achieved, and a summary fact sheet of the project. Terms and Conditions of the cooperative agreement may include additional final reporting and grant closeout requirements.

2.2 TASK 2 – COMMUNITY ENGAGEMENT

The Port will will perform community engagement activities, consistent with the Assessment Grant Proposal submitted and the Cooperative Agreement Terms and Conditions, to ensure that community concerns are considered in project planning and execution. The community will be kept informed of project progress and results and given the opportunity to be involved with your project.

- *Objective of the task:* Ensure that community concerns are considered in project planning and execution.
- *Who has the lead for each task:* The project manager, Rob Healy, and Port of Tacoma Communications Department.
- *Milestones and deliverable(s):* Within the first two months of the grant, the Port will establish the BAC and work with this group to prepare a Public Involvement Plan (PIP).
- *Estimated submittal or completion dates:* Community engagement activities will be ongoing throughout the grant term. BAC meetings will be held quarterly. Two to three press releases and fact sheets are anticipated and regular social media posts.

2.2.1 Community Engagement

On November 22, 2021, the Port held a virtual stakeholder meeting to share news of the grant application and solicit input. The Port presented the goals of the grant and facilitated a

conversation on priorities and the importance of continued engagement. The Port will continue outreach upon grant award. Within the first two months of the grant, the Port will establish the BAC and work with this group to prepare a Public Involvement Plan (PIP) with methods and timelines for increasing the community's capacity to participate in brownfield revitalization, effectively communicating project progress, and obtaining and processing community input. The PIP will include approaches for virtual outreach if needed due to COVID-19 restrictions.

The Qualified Environmental Professional (QEP) contracted to execute this project will support outreach efforts by planning, convening, and moderating meetings to solicit feedback from the public. Existing Port resources and communication channels will be used to publicise these meetings. Community input from meetings, surveys, and other communications will be gathered and tracked in an outreach spreadsheet or database saved in the project file and will be referenced and incorporated during preparation of cleanup and reuse plans. Community input received and Port responses will be summarized in the quarterly progress reports to EPA.

2.2.2 Project Updates and Other Public Information

The Port will prepare plain language fact sheets for distribution to the affected community at the beginning of the project, and a fact sheet after the assessment is complete. The Port will publish a notice of availability of draft ABCAs and proposed cleanup plans for a public comment perdio (typically 30 days). A summary of comments received and how they will be addressed in final cleanup planning will be included in work plan tasks.

2.3 TASK 3 – SITE INVENTORY and PHASE I & II ESAs

The Port plans to conduct a site inventory of underutilized and potentially contaminated land in the Tideflats and to conduct up to 8 Phase I and Phase II ESAs.

- *Objective of the task:* Identify all underutilized and potentially contaminated sites in the Tideflats and assess their eligibility for EPA brownfields funds and other potential funding sources. Complete Phase I and Phase II ESAs on properties identified for Port acquisition.
- *Who has the lead for each task:* Port of Tacoma PM, with contractor support.
- *Milestones and deliverable(s)*: Tideflats Brownfields Inventory Report, Phase I and Phase II ESAs
- *Estimated submittal or completion dates*: Inventory reporting will be completed by the end of the first year of the grant term, meeting with EPA to discuss site eligibility are anticipated. Phase I and Phase II ESA reports will be completed following eligibility confirmation within the specified term of the grant.

The Port plans to procure a Qualified Environmental Professional (QEP) and work with them to complete the site inventory. The inventory will entail review publically available information for vacant or potentially contaminated land in the Tideflats, including tax parcel information and ownership, environmental oversight agency records (Ecology and Tacoma Pierce County Health Department), historical site use, and any prior reporting completed by the Port. This information will be analyzed to produce site specific anticipiated scope of work necessary for bringing the land back into productive

use. The inventory will also consider future funding sources to address brownfield asssessement, reuse planning, and cleanup.

2.3.1 Site Inventory

The Port will work with EPA to determine eligibility of inventoried site and proposed site activities. The Port will provide EPA with details about each site proposed for assessment (Phase I Assessment, Phase II Assessment, or other types of assessment activities) or site-specific planning activities, so that EPA can confirm site eligibility and approve the site for use of cooperative agreement funds. Site eligibility criteria are outlined in the Proposal Guidelines for Brownfields Assessment Grants.

2.3.2 Site Characterization – Phase I and II Assessments

The Port anticipates completing up to 8 Phase I and Phase II ESAs. The Port will confirm site eligibility with EPA prior to all ESAs. Phase I ESAs will comply with the EPA's All Appropriate Inquiry Rule and the ASTM E1527-21 standard. Prior to Phase II ESAs, the Port will direct the project contractor to prepare a project-wide Quality Assurance Project Plan (QAPP) and site-specific Sampling & Analysis Plans (SAPs) for EPA approval, and complete Endangered Species Act and State Historic Preservation Act clearances and a site-specific Health and Safety Plan. The Port, supported by the contractor, will discuss the findings of ESAs and next steps with property owners and stakeholders. Brownfields sites will be enrolled in Ecology's Volunary Cleanup Program as necessary.

Phase I Assessments

The Port will ensure that a "Phase I" site characterization and assessment carried out under this agreement will be performed in accordance with EPA's standard for all appropriate inquiries. The Port will utilize the practices in ASTM standard E1527-13 "Standard Practices for Environmental Site Assessment: Phase I Environmental Site Assessment Process," or EPA's All Appropriate Inquiries Final Rule "All Appropriate Inquiries Rule: Reporting Requirements Checklist for Assessment Grant Recipients", (Publication Number: EPA 560-R-11-030). This does not preclude the use of cooperative agreement funds for additional site characterization and assessment activities that may be necessary to characterize the environmental impacts at the site or to comply with applicable State standards.

All Appropriate Inquiries (AAI) final reports produced with funding from this agreement will comply with 40 CFR Part 312 and will, at a minimum, include the information below. All AAI reports submitted to EPA Brownfields Project Managers as deliverables under this agreement must be accompanied by a completed "Reporting Requirements Checklist," available on the EPA website at: https://www.epa.gov/brownfields/brownfields-all-appropriate-inquiries-rule-reporting-requirements-checklist-assessment

Phase II Assessments

Due to the long industrial history in the Tideflats, due diligence activites typically include a Phase II Assessment. The Port plans to perform additional assessments (Phase II Assessment or other assessment activities) on an EPA-approved site with cooperative agreement funds. Specific activities

associated with Phase II Assessments include subsurface investigation and testing for hazardous building materials.

ESA and NHPA requirements

EPA has certain requirements under the Endangered Species Act (ESA) and National Historic Preservation Act (NHPA), which EPA must meet before giving approval to proceed with field work under the cooperative agreement. The Port will help EPA by providing certain information which will help us fulfill our responsibilities in a timely manner and prevent delays and can use cooperative agreement funds to do so. The information, which may be available in a Phase I Site Assessment, includes the following: the location of the project, any threatened or endangered species or habitat which may be affected by your project, whether the site is considered to be of concern by the State Historic Preservation officer, a list of potentially impacted Tribes, and an evaluation as to whether your plans could have adverse effects on endangered species or cultural resources.

Quality Assurance Project Plan (QAPP) and Health and Safety Plan

A site-specific Quality Assurance Project Plan (QAPP) will be prepared and submitted to EPA for review and concurrence before any sampling is done (alternatively, if addressing multiple sites, the Port may choose to prepare and submit a Generic QAPP and supplement with a Site-Specific Sampling and Analysis Plan). The Port will allow at least 4-6 weeks for EPA turnaround time. The Port will also prepare (or have their contractor prepare) and follow an OSHA-compliant Health and Safety Plan. A copy will be provided to the EPA Brownfields Project Manager for inclusion in the cooperative agreement file.

Integrating Sustainability

The Port's economic development strategy throughout the Tideflats, including brownfield reuse, is to support economic growth that incorporates green/clean innovations while enhancing environmental health through remediation, habitat restoration, and public greenspace access. Port initiatives that support this strategy include: the 2020 Northwest Ports Clean Air Strategy, the 2021 Stormwater Management Program Plan, and Habitat Mitigation Banking. The reuse plans for Target Area brownfields honors the environmental stewardship and habitat restoration goals embedded in the Port's mission and in agreements between the Port and the Puyallup Tribe, as documented in the 1990 Puyallup Land Claims Settlement Act.

The Port's reuse strategy for the Central Peninsula Site and Marc Avenue Area brownfields will result in parcels suitable for redevelopment for larger-scale operations with potential to expand and modernize, and the Port will work with new and expanded businesses to incorporate clean stormwater, air, and energy practices, eatures, and technology during redevelopment. The Marc Avenue vision includes development of the final phase of habitat restoration in the 13.5-acre Gog-le-hi-te Wetland Complex, the Port's oldest restoration site.

The projected reuse of the 459 E 15th Street high priority site is as the future Port Maritime Center campus. The Maritime Center will be built in line with the Port's Sustainable Building Policy currently in

development (part of the Clean Air Implementation Plan 2021-2025). Green building, energy efficiency, and stormwater management approaches will be incorporated into the design and construction of the campus as well as other construction, remodel, and infrastructure projects in the Tideflats. The needs and benefits of creating the Maritime Center will be included in the upcoming 2022 Annual Strategic Plan Implementation Plan. The campus is envisioned to include habitat restoration and public open space along the adjacent Thea Foss waterway, the recreational and scenic amenity that links the Tideflats to downtown Tacoma. The Port's offices are currently located at the center of the Tideflats with limited access other than by car. The new location is just over a bridge from downtown and on bike/pedestrian and public transit routes, cutting down on the need for vehicle use and associated carbon emissions and pollution.

Projected reuses for the high priority brownfields reflect land use align with and are driven by the Port's mission, values, and goals outlined in the 2021-2026 Strategic Plan, which prioritize environmental stewardship, economic vitality, and community connections. Strategic Plan strategies that advance sustainability in alignment with brownfield reuse plans include: 1) address contamination and protect human health; 2) reduce air pollution, emissions, and climate change impacts; 3) invest in stormwater quality improvements; 4) create and enhance wetlands and habitat; 5) strategically acquire property to stimulate new business and new living wage jobs; and 6) build stakeholder relationships through direct engagement. The Port solicited and incorporated community input into the Strategic Plan to ensure it reflects the goals and values of all stakeholders.

2.4 TASK 4 – CLEANUP & REUSE PLANNING

The Port plans to conduct cleanup/reuse planning on up to five high-priority brownfields. These plans may include environmental remediation plans, Analysis of Brownfield Cleanup Alternatives (ABCAs), cleanup cost estimates, obtaining cleanup contractor bids, conceptual designs, planning studies to evaluate site reuse options, and infrastructure and/or land use assessment studies. The Port may conduct market analyses on these and other brownfield properties to evaluate reuse options.

- *Objective of the task:* Complete the planning steps necessary to support brownfield redevelopment.
- *Who has the lead for each task:* Port of Tacoma PM, with contractor support.
- *Milestones and deliverable(s):* Cleanup action and redevelopment plans
- *Estimated submittal or completion dates*: All plans will be completed following eligibility confirmation within the specified term of the grant.

The Port plans to procure a Qualified Environmental Professional (QEP) and work with them to complete the cleanup action and redevelopment plans.

3. SCHEDULE AND DELIVERABLES

A schedule of all key milestone, activities, and accomplishments anticipated over the length of the cooperative agreement is included below.

DUE DATE	ITEM	Send to:			
		EPA PM	STATE	EPA GRANTS	EPA FINANCE
Month 0	Solicitation for hiring environmental contractor	X			
Month 0-3	Property Profile Form entered in ACRES or submitted to PM	X			
Month 0-3	Public Involvement Plan (PIP)	X			
Month 0-3	Fact sheet - project starting	X			
Month 0-3	First Brownfields Advisory Committee (BAC) Meeting – Kick off	X	X		
Quarterly	BAC Meetings	X			
Month 3 - 12	Complete Site Inventory	X			
Month 12	Tideflats Brownfields Inventory Report	X			
Ongoing - At least 30 days before assessment is scheduled to begin	Site eligibility requested for Phase I and Phase II ESAs & confirmed (for petroleum include State)	X	X		
Before fieldwork begins	• Quality Assurance Project Plan (QAPP)/Sampling & Analysis Plan (SAP) • Health and Safety Plan	X			
Before field work begins	Endangered Species Act (ESA) & National Historic Preservation Act (NHPA) Letters	X			
Ongoing	Phase I and Phase II ESAs Begin				
Ongoing	Phase I and II Reports submitted AAI Checklists required w/ Phase I	X	X		

DUE DATE	ITEM	Send to:			
		EPA PM	STATE	EPA GRANTS	EPA FINANCE
Each Federal Fiscal Quarter - Oct-Dec; Jan-Mar; Apr-Jun; Jul-Sept	Quarterly Progress Reports (QPRs) Due Jan 30, Apr 30, July 30, Oct 30	X			
Annually	DBE Report (MBE/WBE) (DBE = Disadvantaged Business Enterprises) Reports must be submitted **annually** by October 30th of each year. For forms & more information, visit: https://www.epa.gov/resources-small-businesses	X (copy)		X	
As Needed	Requests for Reimbursement – see Administrative Terms and Conditions				X
Month 36	Fact Sheet - Assessment results	X	X (copy)		
Annually & at End of Agreement	Final Federal Financial Report (FFR) (SF425) & Final Drawdown Reports must be submitted **annually** within 90 days after end of reporting period. For forms & more information, visit: https://www.epa.gov/grants/epa-grantee-forms	X (copy)		X (copy)	X
Months 36 – 39	Closeout: Final Performance Report with Summary Fact Sheet, Photos, and Lessons Learned	X			

4. BUDGET

The total EPA funded budget for this project is $500,000. Project activities performed in whole or part with EPA cooperative agreement funds will comply with all applicable state laws and cross-cutting federal requirements.

4.1 Budget Table

Budget Category	Task 1 Project Management & Reporting	Task 2 Community Engagement	Task 3 Site Inventory and Phase I and II ESAs	Task 4 Cleanup and Reuse Planning	Budget Category Totals
Personnel	$4,800	$4,800	$4,800	$4,800	**$19,200**
Fringe Benefits	$2,800	$2,800	$2,800	$2,800	**$11,200**
Travel	$5,175	$0	$0	$0	**$5,175**
Equipment	$0	$0	$0	$0	**$0**
Supplies	$0	$0	$0	$0	**$0**
Contractual	$29,925	$25,200	$328,000	$80,500	**$463,625**
Other	$800	$0	$0	$0	**$800**
Total Direct Costs	$43,500	$32,800	335,600	88,100	$500,000
Indirect Costs	$0	$0	$0	$0	$0
Task Totals	**$43,500**	**$32,800**	**$335,600**	**$88,100**	**$500,000**

✓

4.2 Budget Narrative

The scope of work is divided into four tasks as detailed below. Port personnel costs are based on an estimated average rate of $95/hour ($60 salary and $35 fringe). Qualified Environmental Professional (QEP) contractor costs are based on estimated average rate of $175/hour. The Port has allocated grant budget for personnel/fringe for 520 hours (~173 hours/year). Itemized costs for each task are presented below.

Task 1: Project Management & Reporting: $43,500 Total
This task will be led by the Port Environmental and Planning Services Senior Project Manager (PM), Robert Healy and supported by Port Environmental Project Manager (Assistant PM), Sarah Weeks, and a contracted Qualified Environmental Professional. Project management and reporting will be ongoing throughout the project term.

- **$4,800 Port Personnel**: For environmental contractor procurement and project coordination. Perform those activities necessary to manage the Project in accordance with the work plan and meet all required statutes, circulars, and terms and conditions, including establishment and maintenance of necessary Cooperative Agreement records and files. 80 hours at $60/hour.
- **$2,800 Fringe**: Port personnel benefits, includes retirement, health benefits, annual and sick leave. 80 hours at $35/hour.
- **$5,175 Travel**: Port PM and Port Assistant PM to attend one State or regional and one national brownfields conference. Travel/Training costs were calculated as follows:

    - State Conference Estimate (based on Washington State Brownfields Conference in Spokane 2019)
        - Hotel $199.75/night x 2 nights x 1 event/year x 2 persons x 1 year = $799
        - Travel $0.58/mile x 600 miles x 1 event/year x 1 vehicle x 1 year = $348
        - Per diem $64/day x 2 days x 2 persons x 1 year = $256

        Regional Subtotal = $1,403

    - National Conference Estimate (based on Brownfields Oklahoma City 2022)
        - Airfare $800/event x 1 event/year x 2 persons x 1 year = $1,600
        - Airport parking $15/day x 4 days/event x 1 vehicle x 1 year = $60
        - Hotel $200/night x 4 nights x 1 event/year x 2 persons x 1 year = $1,600
        - Per diem $64/day x 4 days x 2 persons x 1 year = $512

        National Subtotal = $3,772

- **$29,925 Contractual (QEP):** Reporting to EPA, update ACRES database, prepare final performance report, 171 hours at $175/hour.
- **$800 Other: Registration Fees – State/Regional and National Brownfields Conferences,** Port PM and Port Assistant PM

- State/Regional Brownfield Conference registration, $200/event x 1 event/year x 2 persions x 1 year = $400
- National Brownfield Conference Registrations, $200/event x 1 event/year x 2 persions x 1 year = $400

Task 2: Community Engagement: $32,800 Total

- **$4,800 Port Personnel**: 80 hours at $60/hr
- **$2,800 Fringe:** Port personnel benefits, includes retirement, health benefits, annual and sick leave. 80 hours at $35/hour.
- **$25,200 Contractual (QEP):** Environmental contractor outreach such as planning, hosting, and facilitating public meetings, including creating and providing informational materials for meeting participants and documenting meeting results and public input. 144 hours at $175/hour.

Task 3 – Site Inventory and Phase I and Phase II Environmental Site Assessment: $335,600 Total

- **$4,800 Port Personnel:** 80 hours at $60/hr.
- **$2,800 Fringe:** Port personnel benefits, includes retirement, health benefits, annual and sick leave. 80 hours at $35/hour.
- **$35,000 Contractual (QEQ): Inventory.** Environmental contractor creation and prioritization of brownfield inventory, site selection, eligibility determinations. 200 hrs at $175/hour.
- **$40,000 Contractual (QEP): Phase I ESAs.** We anticipate completing up to 8 Phase I ESAs at an average cost of $5,000/each.
- **$246,000 Contractual (QEP): Phase II ESAs.** Up to 8 Phase II ESAs at $30,750/each, see breakdown below for one Phase II ESA

  Phase II Cost Estimate Breakdown
  - Environmental contractor (90 hours at $175/hour) – HASP, SAP, Phase II implementation and reporting: $15,750
  - Laboratory analysis of samples: $6,000
  - Driller: $8,000
  - Other (utility locating, geophysical survery, etc.): $1,000

- **$7,000 Contractual (QEP): QAPP Preparation.** Environmental contractor, 40 hours at $175/hour.

Task 4 – Cleanup & Reuse Planning: $88,100 Total

- **$4,800 Port Personnel**: 80 hours at $60/hr
- **$2,800 Fringe:** Port personnel benefits, includes retirement, health benefits, annual and sick leave. 80 hours at $35/hour.

- **$80,500 Contractual (QEP):** Cleanup action and reuse planning for up to 5 properties. Environmental contractor, 92 hours at $175/hour for each property.