PORT OF TACOMA COMMISSION
ACTION ITEM MEMO

Item No: 6D
Meeting Date: 8/15/2023

DATE: 8/7/2023

TO: Port of Tacoma Commission

FROM: Eric Johnson, Executive Director
Sponsor: Debbie Shepack, Director, Real Estate
Project Manager: Scott Hooton, Project Manager II, Environmental & Planning
Project Manager: Brett Ozolin, Project Manager II, Engineering

SUBJECT: Project Authorization -for Arkema Manufacturing Area Feasibility Study and Interim Action Engineering Design

A. ACTIONS REQUESTED

1. Request project authorization increase in the amount of $1,750,000 for a total authorized amount of $ 7,513,794 to complete engineering design testing for a containment wall and resolve potential data gaps concerns raised by Ecology in their review of the 2021 Feasibility Study for the Arkema Manufacturing area, a required deliverable under Ecology Agreed Order DE 5668, Master Identification No. 096201.

2. Request project authorization increase in the amount of $1,007,000 for a total authorized amount of $1,327,000, for engineering design associated with the Arkema Manufacturing Area Interim Action, Master Identification No. 101585.01.

Strategic Plan Initiative: EL-1.

B. SYNOPSIS

The former 48-acre Arkema Manufacturing Property purchased by the Port of Tacoma (Port) is subject to a 2011 Ecology Agreed Order that requires the Port to complete a Remedial Investigation (RI), Feasibility Study (FS) and Cleanup Action Plan (CAP) under the Model Toxics Control Act (MTCA).

The 2021 the FS evaluated seven different remediation alternatives with estimated costs ranging from $11M to $196M; the estimated cost of the preferred remedy is $26M. Although the former owner completed substantial cleanup – at a cost of $46M – Ecology did not approve the proposed remedy based on the concern that contaminated water may still be entering the Hylebos Waterway. The work requested in these authorization requests will enable the Port to address Ecology's stated concerns so that a more cost-effective remedial alternative may be selected (MID 096201).

Ecology has also requested the evaluation of an alternative with additional soil removal/treatment, a significant driver for increased costs.

Ecology has also expressed support for the Port's proposal to place an environmental cap on less contaminated portions of the property so that redevelopment for Port or NWSA operations can occur, provided that a containment cell is first constructed around the most highly contaminated areas of the property. This memo also requests a project authorization increase for the completion of the engineering design for the containment cell and Ecology approval for construction as an interim action under the Agreed Order (MID 101585.01).

This authorization request also includes funding to complete 30% design for the redevelopment of the entire manufacturing area (MID 101585.01). The currently envisioned redevelopment plan assumes the site would be capped and improved in phases as funding is made available as interim actions to be proposed in the future. The 30% design would establish the ultimate layout and function of the site so that the capping elements are compatible with future land use.

C. BACKGROUND

The former 77.6-acre Arkema Property was purchased by the Port of Tacoma (Port) on May 31, 2007, and consists of three parcels: 2901, 2920, and 3009 Taylor Way. The Port assumed all remaining environmental cleanup obligations associated with the property under the purchase and sale agreement. The 2901 and 2920 Taylor Way properties are subject to a 2011 Ecology Order requiring the Port to complete a Remedial Investigation (RI), Feasibility Study (FS) and Cleanup Action Plan (CAP) under the Model Toxics Control Act (MTCA). Although substantial remediation was performed by the prior owner, a large mass of arsenic remains in the Penite Pits area located upland of a sheet pile wall and the Hylebos Waterway. Arsenic migration into surface water and direct human contact with contaminated materials are the primary drivers for corrective action.

The draft FS was submitted to Ecology in April 2021 to select a commercially feasible option for the long-term remediation and redevelopment of the property. The FS evaluated seven (7) different remedial alternatives with estimated future costs ranging from $11M to $196M. The cost of the recommended alternative (hot-spot soil removal, capping, institutional controls, and monitoring) is $26M. The restoration timeframes (a MTCA remedy selection criteria) for each remedial alternative were estimated using a sophisticated numerical groundwater and contaminant transport model. The estimated restoration timeframe for each alternative is inordinately long compared to most MTCA cleanups (thousands of years to meet groundwater criteria throughout the site).

Ecology did not approve the recommended remedy in the 2021 draft FS, raising concerns about: (1) the arsenic concentrations in the Penite Pits area; (2) potential migration through the sheet pile wall; (3) the source and intensity of a potential arsenic source in the "wedge" seaward of the sheet pile wall; and, (4) potential arsenic concentrations in surface water. Ecology has also requested the evaluation of an additional alternative that removes, treats, or contains more soil mass to reduce sources of arsenic to surface water and groundwater. Agreement to an arsenic concentration threshold for soil removal has not been reached.

This authorization will enable staff to address those concerns by implementing a work plan approved by Ecology in July (Expanded Response to Comments Data Gaps Investigation Work Plan, June 23, 2023).

Ecology's Toxics Cleanup Program staff have also informally approved an approach to place an environmental cap on less contaminated portions of the property so that redevelopment for Port or NWSA operations may occur, so long as the Port also agreed to install a containment cell around the most highly contaminated areas of the property. With this approach, the FS would be completed after the completion of the interim action(s). The performance of the wall will be a key factor in the scope of future remedial actions required by Ecology, either in an amended FS, or additional interim action(s).

Commission authorized three tasks in April 2022 to support interim action planning. They included: (1) Low Permeability Wall Basis of Design (BOD) Report; (2) Alternatives Assessment for 24-Acre Capping and Redevelopment; and, (3) Work Plan for BOD and 24-Acre Capping and Redevelopment.

The Low Permeability Wall BOD evaluated performance, characteristics, costs, means of construction and alignment for different types of containment walls. The project team used the report to identify a preferred path forward. The report contains a significant portion of the information necessary to support final design and selection of a qualified consulting team.

For the second task, the project team evaluated site redevelopment concepts for 24 acres of the less contaminated portions of the site outside the proposed containment wall area. Concept development started with stakeholder engagement and identifying business and operational drivers and infrastructure requirements. Estimated development costs for the evaluated alternatives ranged from $32M to $39M. The task concluded with site plans that summarized the infrastructure and costs associated with redevelopment. The redevelopment assumes greater volumes of imported material would be required to limit the excavation, handling, and disposal requirements for contaminated materials.

The Work Plan for the BOD and the third task was a narrative and description of the implementation and testing necessary to advance the containment wall and redevelopment. This Work Plan was also approved by Ecology in July (Expanded Response to Comments Data Gaps Investigation Work Plan, June 23, 2023). This falls within the scope of the authorization requested under MID 096201.

D. SCOPE OF WORK

Scope of Project – MID 096201 Arkema Remedial Investigation and Feasibility Study:

- Redevelopment and Remediation Planning
- Agreed Order Negotiation and Execution
- Remedial Investigation and Reporting
- Data Gap Investigation and Reporting
- Draft Feasibility Study and Response to Comments
- Expanded Response to Comments and Data Gaps Investigation Work Plan

Scope of Work for This Request – MID 096201 Arkema Response to Comment Feasibility Study Data Gap Investigation:

- Geophysical Survey and hydraulic profiling borings
- Plume core borings; soil and groundwater analyses
- Sequential arsenic extraction of soil samples and pore water sampling in the Penite Pit area
- Tidal fluctuation study; surface water, pore water and soil borings in the Wedge Area

- Trenching and soil borings and arsenic screening along the proposed alignment of the barrier wall; geotechnical analysis and materials compatibility testing
- Barrier Wall Alignment Investigation Report
- Agency Draft Interim Action Work Plan (IAWP)
- Public review draft IAWP
- Final IAWP
- Data gap investigation report

Scope of Project – MID 101585.01 Arkema Manufacturing Area Interim Action:

- Low permeability wall (containment wall) Interim Action preliminary design, final design, and construction
- 24-acre environmental capping and development preliminary design and final design

Scope of Work for This Request – MID 101585.01 Arkema Manufacturing Area Interim Action:

- Low Permeability Wall Final Design
- 24-Acre Capping and Redevelopment 30% Design

Low Permeability Wall Final Design

Ecology has determined that installing a low permeability wall around the Penite Pits is an essential remediation component and can support installation as an interim action. The low permeability wall is intended to reduce the amount of arsenic migrating towards the Hylebos Waterway. Preliminary design addressed targeted performance, preferred alignment, composition, permeability, construction means and methods and anticipated cost. This report in conjunction with field and testing data requested under MID 096201 will support final design. The purpose of this memo and authorization request is to support Ecology approval of the final design. Final design efforts will also require a professional services procurement.

24-Acre Capping and Redevelopment 30% Design

The intent of this authorization request is to secure funding to complete a 30% project design for the site that incorporates a phased approach. The preferred development alternative is for Marine dependent or heavy industrial use such as break-bulk storage for tractors, tracked equipment and other RO-RO cargo. Staff's recommendation is to develop an overall plan for the entire site, but have this development occur in approximately four stages as grant funding/commercial drivers materialize. These stages would be implemented as a series of future Ecology-approved interim actions, like the approach for approving the low permeability wall. Approval of additional interim actions would be subject to future Commission and Ecology approvals. The design work would identify the primary challenges and features of site development and how they would be addressed. The 30% design package will include the following elements:

- Final site grading, cut and fill quantities
- Overall storm drainage concept layout and design
- Provisions and estimates for other site utilities
- Paving/surfacing sections (capping and pavement design)

- Draft project specifications
- Phasing plans and draft project drawings that show complete redevelopment layouts and concepts, but not all details, elevations or sections

Schedule – Arkema Manufacturing Area Interim Action

Data Gap and Wall Investigation	3Q23-4Q23
Design Contract RFQ	1Q24
30% Containment Wall Design Deliverables	3Q24
Containment Wall Interim Action Public and Ecology Review, Comment and Approval	3Q24
Final Containment Wall Design Deliverables	4Q24
30% Redevelopment Draft Deliverables	4Q24
Final Redevelopment Deliverables.	4Q24

E. FINANCIAL SUMMARY

Estimated Cost of Project – MID 96201 Arkema Remedial Investigation, Feasibility Study and Cleanup Action Plan

The cost to complete the work under the current Ecology order (RI/FS/CAP) is estimated at $7,514,750. Additional Commission authorization will most likely be required after the Work Plan approved by Ecology in July is implemented (Expanded Response to Comments Data Gaps Investigation Work Plan, June 23, 2023) to complete the scope of work under the current Ecology order.

Remedial grants in the amount of $5,115,807 have been awarded by Ecology for work under the agreed order. The grants provide 50% of eligible costs incurred by the Port. Grant reimbursements total $2,594,061.

Future remedial actions will also occur as a series of interim actions also requiring future Commission authorizations.

Estimated Cost of Project – MID 101585.01 Arkema Manufacturing Area Interim Action

The total project cost including all interim action work is not estimable because the preferred site development alternative has not been selected or phased. The work completed under this authorization would complete containment wall design and provide for 30% final design of the 24-acre site redevelopment. The Capital Investment Plan currently allocates $6,776,000 to this project. This allocation covers the following:

- Containment wall preliminary and final design
- A portion of containment wall implementation (construction), and
- 24-acre site development preliminary and final design

Implementation costs for the 24-acre site development are not currently included in the Capital Investment Plan. Additional Commission authorization will be requested at the final design and implementation stages.

Estimated Cost for This Request – Arkema Manufacturing Area Interim Action

The total estimated cost for this project request is $1,327,0000. If the cost is anticipated to exceed the authorized amount, additional Commission authorization will be requested.

Cost Details

For transparency purposes, and to give an estimate of all project costs, this table provides the cost details for the ongoing RI/FS, remediation planning work, previously authorized by Commission and managed as a separate project under MID 096201.

Item Public Works Interim Action (101585.01)	This Request	Total Previous Requests	Total Request	Total Project Cost	Cost to Date	Remaining Cost
PRELIMINARY DESIGN	$ 0	$ 320,000	$320,000	$ 265,000	$ 244,000	$ 21,000
FINAL DESIGN CONT. WALL	$ 257,000	$ 0	$257,000	$ 312,000	$ 0	$ 312,000
CONSTRUCTION (WALL ONLY)	$ 0	$ 0	$ 0	$ 5,450,000	$ 0	$ 5,450,000
30% DESIGN (24 ACRES)	$ 750,000	$ 0	$ 750,000	Not Estimable	$ 0	Not Estimable
TOTAL	$1,007,000	$ 320,000	$1,327,000	$ 6,027,000	$ 244,000	$ 5,783,000

Item	This Request	Total Prev. Requests	Total Request	Total Project Cost	Cost to Date	Remaining Cost
Remedial Investigation /Feasibility Study (96201)	$1,750,000	$5,763,794	$7,513,794	$7,514,750	$5,603,792	$1,910,958

Source of Funds

The current Capital Investment Plan (CIP) allocates $6,776,000 for the Arkema Manufacturing Area Interim Action project (MID 101585.01) and $1,910,000 for the Arkema Manufacturing Area Investigation project (MID 096201).

Financial Impacts

Project costs will be capitalized as a non-depreciable land asset.

Grant funds will be recorded as non-operating income at the time the reimbursement is requested.

F. ECONOMIC INVESTMENT / JOB CREATION

Completing the Interim Action work will restore 24-acres of contaminated property to active industrial use. The economic benefit and job creation will be determined by the end use of the property which is not yet determined. In the immediate term, this action will create temporary consulting and project design support jobs.

G. ALTERNATIVES CONSIDERED AND THEIR IMPLICATIONS

Alternative 1: Only provide authorization to complete engineering design testing and resolve potential data gaps concerns raised by Ecology in their review of the 2021 Feasibility Study for the Arkema Manufacturing area, a required deliverable under Ecology Agreed Order DE 5668, Master Identification No. 096201. Authorization for the containment wall interim action final design would be requested after field investigations are complete. Delaying final design authorization would slightly extend the program and associated expenditures.
Alternative 2: Only authorize the feasibility study data gap investigations, engineering design testing and final design for the containment wall interim action.
Alternative 3: This request – authorize funding to complete data gap investigations, engineering design testing and reporting, low permeability containment wall final design, and 24-Acre Capping and Redevelopment 30% Design**.**

H. ENVIRONMENTAL IMPACTS/REVIEW

Permitting: The required permits will be determined during the 30% design phase.
Remediation: This is a remediation project.
Stormwater: Stormwater management will be an important design consideration for interim action design and construction, as well as redevelopment design.
Air quality: No significant air quality issues or concerns are anticipated.

I. PREVIOUS ACTIONS OR BRIEFINGS

Date	Action	Amount
February 10, 2007	PSA Award (MID 096201)	$52,000
December 28, 2008	PSA Amendment (MID 096201)	$47,000
January 16, 2008	PSA Amendment (MID 096201)	$1,448,434
May 17, 2011	Agreed Order (MID 096201)	NA
November 1, 2012	PSA Amendment (MID 096201)	$598,500
March 18, 2014	Project Authorization – RI/FS/DCAP (MID 096201)	$1,294,807
August 17, 2017	Project Authorization – RI/FS/DCAP (MID 096201)	$2,323,053
November 16, 2019	Project Authorization – draft FS (MID 096201)	NA
April 6, 2022	Grant and Project Authorization (MID 101585)	$320,000
	TOTAL	**$6,083,794**

J. NEXT STEPS

Implement the Response to Comment Data Gap Workplan and issue draft report of findings to Ecology. Address Ecology comments.
Procure Engineering Design Services through competitive process.

Incorporate the 30% design for the containment wall into an Interim Action Work Plan; address Ecology comment; support Ecology's public review and comment process.

Complete final design for the containment wall. Return to Commission for construction authorization late 2024.

Complete 30% design for the Arkema Manufacturing Area Interim Action 24-acre site redevelopment. Prepare phased project approach to implement as grant funding or business opportunities develop.