

### MFA Work Order Authorization

Between Maul Foster & Alongi, Inc. (MFA), and City of St. Helens (Client).

Signing of this authorization by MFA and Client authorizes MFA to complete the work as described below under the attached General Terms and Conditions and Schedule of Charges.

**MFA project number:** M0830.03.007

**Work order number:** 01

**Project name:** St. Helens Waterfront Redevelopment—Lagoon Repurposing Project Phase 1C

**Project location:** St. Helens, Oregon

**Scope of work:** This work order requests budget for MFA to complete the work described in the attached Phase IC Scope of Work for the project.

**Schedule of work:**

MFA will begin work within 5 days of receiving authorization to proceed. Completion of the scope of work is expected to take 18 months and will culminate with submittal of the solid waste permit application to the Oregon Department of Environmental Quality. This proposal is valid for 30 days.

**Estimated cost of work:**

The cost to complete the scope of work is \$863,200, as shown in the attachment.

This cost estimate does not represent a lump sum. MFA bills on a time-and-materials basis. MFA may apply money from one task to another to complete the scope of work.

So agreed to this 12th day of March, 2024.

**By Maul Foster & Alongi, Inc.**

**By City of St. Helens**

\_\_\_\_\_  
Signature

Seth Otto

\_\_\_\_\_  
Printed Name

Principal Planner

\_\_\_\_\_  
Title

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Title



## GENERAL TERMS AND CONDITIONS

### ARTICLE 1—AGREEMENT

These General Terms and Conditions (the “Agreement”) govern all professional services, labor, materials, and equipment (collectively the “Services”) furnished by Maul Foster & Alongi, Inc. (“MFA”), pursuant to the attached proposal (the “Proposal”) and on behalf of MFA’s client (“CLIENT”). MFA’s performance of its Services under this Agreement is conditioned on the acceptance of all the following terms and conditions by CLIENT. This Agreement does not need to be signed by CLIENT to be effective.

### ARTICLE 2—PROFESSIONAL RESPONSIBILITY

MFA shall perform the Services specified in this Agreement consistent with the level of care and skill ordinarily exercised by other professional consultants under similar circumstances at the same time the Services are performed; subject, however, to any express limitations established by the CLIENT as to the degree of care and amount of time and expense to be incurred and any other limitations contained in this Agreement. No other representation, warranty, or guaranty, express or implied, is included in or intended by this Agreement or any other of MFA’s services, proposals, agreements, or reports contemplated by this Agreement.

### ARTICLE 3—INDEPENDENT CONTRACTOR STATUS; LEGAL RELATIONSHIP

The parties intend that MFA, in performing Services specified in this Agreement, shall act as an independent contractor and shall have control of its work and the manner in which it is performed. MFA shall be free to contract for similar services to be performed for other individuals or entities while it is under contract with CLIENT.

The parties further intend that nothing in this Agreement shall be construed or interpreted as requiring MFA to assume the status of an owner, operator, generator, person who arranges for disposal, transporter, or storer, as those terms, or any other similar terms, are used in any federal, state, or local statute, regulation, order, or ordinance governing the treatment, storage, handling, and disposal of any toxic or hazardous substance or waste.

### ARTICLE 4—BILLING AND PAYMENT

Invoices will be submitted monthly and shall be due and payable upon receipt. Payment shall be made to Maul Foster & Alongi, Inc., and delivered to:

Maul Foster & Alongi, Inc.  
330 E Mill Plain Boulevard, Suite 405  
Vancouver, WA 98660

Except as otherwise agreed in writing, CLIENT agrees that there shall be no retention or holdback of the fee for the Services. Interest at the rate of one and one-half percent (1.5%) per month, but not exceeding the maximum rate allowable by law, shall be payable on any amounts that are due but unpaid within thirty (30) days from receipt of invoice, payment to be applied first to accrued late payment charges and then to the principal unpaid amount. MFA may, at its option, withhold performance of the Services and/or delivery of reports and any other data pending payment by CLIENT.

## **ARTICLE 5—LIMITATION OF LIABILITY**

CLIENT agrees to limit the liability of MFA, its officers, directors, shareholders, affiliates, employees, agents, and representatives (the “MFA Parties”) to CLIENT for all claims and legal proceedings of any type arising out of or relating to the performance of Services under this Agreement (including, but not limited to, MFA’s breach of the Agreement, its professional negligence, errors and omissions and other acts) to the greater of \$100,000 or the amount of MFA’s Fee. Failure of CLIENT to give written notice to MFA of any claim of negligent act, error, or omission within one (1) year of performance shall constitute a waiver of such claim by CLIENT. In no event shall MFA be liable for any direct, indirect, special, incidental, exemplary, or consequential loss or damages sustained from any cause or arising out of any legal theory, whether contract, negligence, strict tort liability, or otherwise. MFA is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder.

## **ARTICLE 6—INDEMNIFICATION**

Subject to the limitation of liability above, MFA shall indemnify and hold CLIENT harmless from the proportionate share of any claim, suit, liability, damage, injury, cost, or expense, including attorneys’ fees, or other loss (hereafter collectively called “Loss”) arising out of (a) MFA Parties’ breach of this Agreement or (b) MFA Parties’ willful misconduct or negligence in connection with the performance of the Services under this Agreement.

CLIENT agrees to indemnify, defend, and hold harmless MFA Parties from any Loss arising out of (a) CLIENT’s breach of the Agreement, or (b) CLIENT’s willful misconduct or negligence in connection with performance of the Agreement. To the extent a portion of such Loss is caused by MFA’s negligence, CLIENT shall indemnify and hold MFA harmless from the proportional share of the Loss resulting from the acts or negligence of CLIENT.

## **ARTICLE 7—TERM OF AGREEMENT; TERMINATION**

If any Services agreed to be performed hereunder are terminated, CLIENT will pay MFA for Services performed to the date MFA receives notice of termination and shall further pay for any costs reasonably incurred by MFA in connection with terminating Services, including, but not limited to, the costs of completing analysis, records, and reports necessary to document job status at the time of termination and costs associated with termination of subcontractor contracts.

The obligations of the parties to indemnify and the limitations on liability set forth in this Agreement shall survive the expiration or termination of this Agreement.

## **ARTICLE 8—TIME OF PERFORMANCE/FORCE MAJEURE**

MFA makes no warranties regarding the time of completion of Services and shall not be in default of performance under this Agreement where such performance is prevented, suspended, or delayed by any cause beyond MFA’s control, including but not limited to, war, terrorism, pestilence, act of God, mechanical malfunction, unavailability of energy, unavailability of materials, pandemic, cyberattack, accident, fire, explosion, public protest, or governmental actions or legislation.

Neither party will hold the other responsible for damages for delays in performance caused by acts of God or other events beyond the control of the other party and which could not have been reasonably foreseen or prevented. If such events occur, it is agreed that both parties will use their best efforts to overcome all difficulties arising and to resume as soon as reasonably possible performance of Services under this Agreement. Delays within the scope of this provision will extend the contract completion date for specified

services commensurately or will, at the option of either party, make this Agreement subject to termination or to renegotiation.

**ARTICLE 9—SUSPENSION OF SERVICES**

CLIENT may suspend further performances of Services by MFA by ten (10) days prior written notice. If payment of invoices by CLIENT is not maintained on a thirty (30) day current basis, MFA may suspend further performance until such payment is restored to a current basis. Suspensions for any reason exceeding thirty (30) days will, at the option of MFA, make this Agreement subject to termination or renegotiation.

All suspensions will extend the contract completion date for specified services commensurately, and MFA will be paid for services performed to the suspension date plus suspension charges. Suspension charges are defined as those charges relating to costs incurred which are directly attributable to suspension of services, including, but not limited to, personnel rescheduling, equipment rescheduling, and/or reassignment adjustments.

**ARTICLE 10—CHANGED CONDITIONS**

If, during the course of the performance of the Services under this Agreement, conditions or circumstances develop or are discovered which were not contemplated by MFA at the commencement of this Agreement, and which materially affect MFA’s ability to perform the Services or which would materially increase the costs to MFA of performing the Services, then MFA shall notify the CLIENT in writing of the newly discovered conditions or circumstances, and CLIENT and MFA shall renegotiate in good faith the terms and conditions of this Agreement. If amended terms and conditions cannot be agreed upon within thirty (30) days after the mailing of such notice, MFA may terminate the Agreement and be compensated as set forth in the section of this Agreement entitled TERM OF AGREEMENT; TERMINATION.

**ARTICLE 11—INSURANCE**

MFA agrees to use its best efforts to maintain Professional Liability, Commercial General Liability, Automobile Liability, statutory Worker’s Compensation, and Employers’ Liability insurance coverage during the period of performance of services hereunder in the following minimum amounts:

LIMITS OF LIABILITY

- |    |   |   |
|----|---|---|
| A. | Worker’s Compensation<br>Employer’s Liability   | Statutory<br>\$1,000,000                  |
| B. | Commercial General Liability<br>(including Contractual Liability)<br>Bodily Injury<br>Property Damage | \$1,000,000 each occurrence and aggregate |

LIMITS OF LIABILITY

- |    |   |   |
|----|---|---|
| C. | Comprehensive Automobile Liability<br>(Owned, Hired, and Non-owned<br>Vehicles)<br>Bodily Injury<br>Property Damage | \$1,000,000 combined single limits for each<br>accident |
|----|---|---|

D. Professional Liability: \$1,000,000 for each occurrence or aggregate

At CLIENT's request, insurance certificates will be provided by MFA to evidence such coverages.

## **ARTICLE 12—HAZARDOUS OR UNSAFE CONDITIONS**

CLIENT has fully informed MFA of the type, quantity, and location of any hazardous, toxic, or dangerous materials or unsafe or unhealthy conditions which CLIENT knows or has reason to suspect exists at all real property where the Services are to be performed (the "Project Site"). CLIENT shall immediately inform MFA when it becomes aware of any new information as to the foregoing which may affect the project, such as information to constitute a CHANGED CONDITION subject to the provisions of Article 10 of this Agreement.

MFA shall not be responsible for the health and safety of any persons other than the MFA Parties, nor shall have any responsibility for the operations, procedures, or practices of persons or entities other than the MFA Parties.

## **ARTICLE 13—RIGHT OF ENTRY AND UNAVOIDABLE DAMAGES**

CLIENT agrees to grant or arrange for right of entry when deemed necessary by MFA to perform the Services at the Project Site, whether or not the Project Site is owned by CLIENT. CLIENT recognizes that the use of investigative equipment and practices may unavoidably alter conditions or affect the environment at the Project Site. While MFA will take all reasonable precautions to minimize damage to the Project Site, the cost of repairing any such damage shall be borne by CLIENT, and it is understood that the correction of such damage is not part of the Services or the Fee contemplated by this Agreement.

## **ARTICLE 14—SUBCONTRACTORS**

MFA may, in its sole discretion, subcontract for the services of others without obtaining CLIENT's consent where MFA deems it necessary or desirable to have others perform certain services. If MFA, in its sole discretion, deems it necessary or desirable to obtain Client's advance concurrence as to any proposed subcontract, MFA may make a written request to CLIENT to review the qualifications and suggested scope of work to be performed by such proposed subcontractor and CLIENT shall either grant or deny such concurrence within a reasonable time after receipt of such request.

## **ARTICLE 15—OWNERSHIP AND REUSE OF DOCUMENTS**

All documents furnished by MFA pursuant to this Agreement are instruments of MFA's services. MFA shall retain all ownership and property interests therein, including all common law, statutory, and other reserved rights, including copyrights. Such documents are not intended or represented to be suitable for reuse by CLIENT or others. Any such reuse without specific written verification and adaptation by MFA for the specific purpose intended will be at the reuser's sole risk and without liability or legal exposure to MFA. To the fullest extent permitted by law, CLIENT agrees to indemnify and hold harmless MFA Parties from all costs and expenses, including the cost of defense, related to claims and causes of action asserted by any third person or entity to the extent such costs and expenses arise from CLIENT's use of MFA's documents under this section. Any transfer of electronic data hereunder is solely for CLIENT's convenience "as is" without warranty as to contents and is not the project deliverable unless specifically agreed to the contrary. MFA disclaims all warranties express or implied with regard to any electronic data provided hereunder, including any warranties of merchantability or fitness for a particular purpose. The provisions of this section shall survive the expiration or termination of this Agreement.

## **ARTICLE 16—NO THIRD-PARTY BENEFICIARIES**

There are no third-party beneficiaries of this Agreement, and no third party shall be entitled to rely upon any work performed or reports prepared by MFA hereunder for any purpose whatsoever. CLIENT shall indemnify and hold MFA harmless against any liability to any third party for any Loss arising out of or relating to the reliance by any such third party on any work performed or reports issued by MFA hereunder. The provisions of this section shall survive the expiration or termination of this Agreement.

## **ARTICLE 17—DESIGNS AND DISCOVERIES**

In the course of providing Services to CLIENT, MFA may utilize or develop designs, ideas, discoveries, inventions, or improvements of these (collectively “Ideas”), made by the MFA Parties. CLIENT agrees that MFA’s utilization or development of such Ideas does not grant CLIENT any right in the form or ownership or license to such Ideas. All Ideas utilized or developed while providing CLIENT Services shall be deemed to be property of MFA.

## **ARTICLE 18—LAWS AND REGULATIONS**

Both parties will be entitled to regard all applicable laws, rules, regulations, and orders issued by any federal, state, regional, or local regulatory body as valid and may act in accordance therewith until such time as the same may be modified or superseded by such regulatory body or invalidated by final judgment in a court of competent jurisdiction, unless prior to such final judicial determination, the effectiveness of such law, rule, or regulation has been stayed by an appropriate judicial or administrative body having jurisdiction.

In the event there are changes in existing laws, codes, regulations, orders or ordinances, or the interpretation thereof, following the performance of professional services, CLIENT agrees to defend, indemnify, and hold MFA harmless from any and all claims, including claims for fines or penalties imposed, resulting from or alleged to have resulted from noncompliance with or nonincorporation of such changes in professional services prior to the effectiveness of such changes.

## **ARTICLE 19—ASSIGNMENT**

Neither party to this Agreement may delegate, assign, or otherwise transfer its rights and interests or duties and obligations under this Agreement without prior written consent of the other party.

## **ARTICLE 20—DISPUTE RESOLUTION**

Any claim, controversy, dispute, or disagreement between the parties arising out of or relating to this Agreement, including but not limited to those arising out of or relating to any Work Order Authorization and including those based on or arising from any statute, constitution, regulation, ordinance, rule, or any alleged tort (collectively “Dispute”), shall be resolved in accordance with the following dispute resolution procedure:

1. CLIENT and MFA agree that discussing and reaching an agreement is often the most cost-effective and beneficial method to resolve a dispute. In the event that any Dispute arises between them, the parties agree to hold a meet-and-confer session between one or more principals of each party with authority to settle the dispute.
2. If the parties cannot reach a mutually acceptable resolution, they shall proceed to non-binding mediation using a mutually agreed upon mediator, with each party being responsible for one-half of the mediator’s fee. Mediation is an express condition precedent to binding arbitration, as provided below.
3. Unless successfully resolved as provided above, the parties agree that any Dispute shall be resolved by binding arbitration with the then-effective arbitration rules of Arbitration Services of Portland,

Inc., and any judgment upon the award rendered pursuant to such arbitration may be entered in any court having jurisdiction thereof.

## **ARTICLE 21—ATTORNEYS' FEES AND COSTS**

If any action or proceeding is commenced to enforce or interpret any of the terms or conditions of this Agreement or the performance thereof, including the collection of any payments due hereunder, the prevailing party will be entitled to recover all reasonable attorneys' fees, costs, and expenses, including staff time at current billing rates, expert witness fees, court costs, and other claim-related expenses.

If MFA is requested to respond to any mandatory orders for the production of documents or witnesses on CLIENT's behalf regarding work performed by MFA, CLIENT agrees to pay all costs and expenses incurred by MFA not reimbursed by others in responding to such order, including attorney's fees, staff time at current billing rates, and reproduction expenses.

## **ARTICLE 22—GOVERNING LAW AND VENUE**

This Agreement shall be subject to, interpreted, and enforced according to the laws of the State from which MFA's services are procured. The parties submit to jurisdiction in Clark County, Washington, and agree that the venue for any and all disputes arising out of or related to this Agreement shall be in Clark County, Washington. Each party further agrees that, in any litigation or arbitration arising out of or related to this Agreement, the party, and the party's officers, employees, and agents shall appear, at that party's expense, for deposition in Clark County, Washington.

## **ARTICLE 23—SEVERABILITY**

Any provision of this Agreement held in violation of any law will be deemed stricken and all remaining provisions shall continue valid and binding upon the parties. The parties will attempt in good faith to replace any invalid or unenforceable provision(s) of this Agreement with provisions which are valid and enforceable and which come as close as possible to expressing the intention of the original provisions.

## **ARTICLE 24—ENTIRE AGREEMENT**

This Agreement constitutes the entire agreement between CLIENT and MFA. It supersedes any and all prior written or oral agreements, negotiations, or proposals, or contemporaneous communications with respect to the subject matter hereof, and has not been induced by any representations, statements, or agreements other than those herein expressed. No amendment to this Agreement hereafter made between the parties will be binding on either party unless reduced to writing and signed by authorized representatives of both parties.



## SCHEDULE OF CHARGES

### PERSONNEL CHARGES

Principal .....	\$260 – 280/hour
Senior.....	\$190 – 250/hour
Project.....	\$170 – 210/hour
Analyst .....	\$160 – 180/hour
Superintendent .....	\$160/hour
Staff .....	\$150 – 165/hour
Graphic Design.....	\$145 – 155/hour
Technician .....	\$125 – 160/hour
Administrative Support .....	\$115 – 135/hour

Depositions and expert witness testimony, including preparation time, will be charged at 200 percent of the above rates.

Travel time will be charged in accordance with the above rates.

### SUBCONTRACTORS

Charges for subcontractors will be billed at cost plus 15 percent.

### EXPENSES

Charges for outside services, equipment, and facilities not furnished directly by Maul Foster & Alongi, Inc. will be billed at cost plus 10 percent. Such charges may include, but shall not be limited to the following:

Printing and photographic reproduction	Rented equipment
Rented vehicles/mileage	Shipping charges
Transportation on public carriers	Meals and lodging
Special fees, permits, insurance, etc.	Consumable materials

### DIRECT CHARGES

Charges for specialized software modeling and equipment are as specified in the scope of work.

Field equipment rates are set forth in the Field Equipment Rate Schedule.

The rates for document production are set forth in the Document Production Rate Schedule.

### RATE CHANGES

Schedule of Charges are subject to change without notice.



# Phase 1C Scope of Work

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## St. Helens Waterfront Redevelopment— Lagoon Repurposing Project

March 12, 2024



MAUL  
FOSTER  
ALONGI

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# 1 Introduction

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This scope of work describes efforts to continue the Phase 1 Lagoon Repurposing initiated with funding from the April 10, 2019, State of Oregon Intergovernmental Agreement (IGA), and Phase 1B which was completed in 2022 and 2023 under a community resiliency grant from the Federal Emergency Management Agency (FEMA). Work completed under the Phase 1 scope included:

- Locations Restriction Report
- Phase 1 environmental and geotechnical site characterization
- Preliminary conceptual site development plan
- Preliminary risk assessment and air modeling
- Public engagement
- Initial governance assessment

Work completed under the phase 1B scope of work included:

- Supplemental geotechnical investigation
- Supplemental environmental investigation of lagoon

The next phase of the Lagoon Repurposing project (Phase 1C) will include additional geotechnical studies, evaluation of design alternatives based on the results of the Phase 1 and 1B site characterizations and investigations, market analysis update, advancement of the facility design, risk assessment and air modeling, wastewater treatment plant impact analysis, preparation of the Phase 2 work plan, and preparation and submittal of the solid waste permit application.

In addition to this scope of work, the City of St. Helens (the City) will continue to advance public engagement and governance processes. MFA is available to assist with these processes but scope to do so is not included herein.

## 2 Scope of Work

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Summarized below are tasks that will define the scope of work.

### Task 1—Market Study Update

The Market Study was initially prepared in 2016 to determine the economic viability of the Lagoon Repurposing Project. The plan was updated in 2021 to evaluate net present value calculations, as well as evaluate a new scenario that assumed clean fill was used for the project. Task 1 will incorporate estimated project costs based on the design elements that will be advanced as part of the site development plan (Task 3) and data collected in Phase 1 and 1B. Work items to be included in Task 1 are as follows:

## Phase 1C Scope of Work

- Evaluate and update assumptions and economic factors used in the 2016 market study and 2021 study update, and update as necessary
- Update design, construction, operation, and closure/post-closure costs with current-day values
- Update net present value calculations for 4 scenarios described in the 2021 study update
- Update tipping rate calculations

## Task 2—Geotechnical Studies

Task 2 will expand on analysis and design that was completed in Phase 1 and 1B. Analysis will incorporate information gathered to date and seek to further evaluate the facility design based on current understanding of subsurface conditions. Work items to be included in Task 2 are as follows:

- Seismic analysis of the existing lagoon configuration (current condition)
- Complete total and differential settlement analysis of the existing containment berm based on updated design configuration
- Evaluate static slope stability of berms constructed for construction phasing
- Prepare cost estimates for ground improvements identified in the Phase 1B geotechnical report

## Task 3—Site Development Plan

The Site Development Plan will advance the preliminary design prepared under Phase 1 to describe necessary engineering, environmental controls, and operational components as follows:

- Facility operations, material characteristics (sources, fees, capacity, etc.), access, and proposed facilities.
- Conceptual design drawings and preliminary specifications for major components of the facility.
- Site phasing for fill placement for the anticipated life of the facility. The facility is anticipated to be constructed in multiple phases to stage construction efforts and costs over time.
- Leachate management for the operational and post-closure stages, including leachate characterization and analysis of options for collection, removal, treatment, and disposal.
- Surface water management methods and facilities for stormwater runoff and run-on.
- Preliminary wetland impacts and mitigation.
- Subsurface gas management analysis will be performed to verify the assumption that gas generation from the proposed facility is not anticipated due to the nature of the fill materials (e.g., soil, sediment). Management measures, if any, will be incorporated.
- Environmental monitoring strategies will be developed at the conceptual level; a final monitoring plan will be prepared in Phase 2 of the project.
- Final closure plans and anticipated end use. This is anticipated to be conceptual in nature and may present multiple options for the site after closure.

## Phase 1C Scope of Work

- Leachate treatment and disposal feasibility study for treatment methods and disposal of leachate. This task may be completed as part of the Phase 2 assessment and final design pending approval by DEQ.
- Initial climate resiliency assessment of proposed facilities and design standards.
- Topographic and bathymetric surveys will be conducted to fill data gaps and support design.

Regulatory and stakeholder comments related to the documents completed and submitted under the Phase 1 and 1B will also be addressed under this task in order to finalize the Site Development Plan. This plan will be the basis of the solid waste permit application.

## Task 4—Risk Assessment and Air Modeling

Under the Cleaner Air Oregon rules, a risk assessment will be required to evaluate the potential risks to human health from exposure to sediment and soil chemicals of concern (COCs) that may be handled at the facility. The risk assessment must address the potential for dust generation and volatilization of COCs such as polychlorinated biphenyls, semivolatile organic compounds, and volatile organic compounds to air during handling of sediment and soil (off-loading, handling, and placement). Work for this task will be completed according to the work plan developed under the Phase 1 scope of work (Maul Foster & Alongi, October 2, 2020).

### Data Review and Emissions Estimation

Data from published sources, databases, and regulatory guidance will be evaluated in relation to anticipated COCs that could be received at the site. The following components will be part of the initial data review:

- Identify and assess chemical-specific information such as volatilization and toxicity factors for sediment COCs, including but not limited to polychlorinated biphenyls, semivolatile organic compounds, and volatile organic compounds.
- Review recent literature evaluating volatilization of COCs during sediment transportation, off-loading, and placement activities.
- Review chemical properties and toxicity databases such as the U.S. Environmental Protection Agency's integrated risk information system.
- Review peer-reviewed scientific literature for toxicity factors if these are unavailable from state or federal databases.
- Determine potential dust and volatile loss to air of COCs during soil and sediment offload, handling, and placement, based on Portland Harbor Superfund Site sediment COC concentrations, expected soil contaminant concentrations, and chemical-specific properties. The evaluation will include estimating sediment concentrations for modeling based on available data that are representative of sites in the service area to be dredged.
- Develop an emissions inventory that covers off-loading, handling, and material placement.

### Conceptual Site Model

The conceptual site model developed in Phase 1 will be updated as the design advances through Phase 1C. Additional sediment data may also be incorporated as information becomes available

through current regional site investigations and off-site sediment project designs. The site model will include a qualitative description of site operations, methods of COC release, exposure pathways, receptor locations, and risk assessment procedures will be prepared for DEQ review.

## Data Evaluation and Risk Assessment

The work plan prepared in Phase 1 describes the sources of emissions, their release rates, locations, nearby downwash structures, source of meteorology, terrain, and receptor locations. A new risk assessment work plan will be prepared for Phase 1C that describes the COCs, risk assessment types, risk-based concentrations, exposure pathways, zoning, receptor assumptions, and risk assessment calculation methods. Once the work plan and modeling protocols are approved by the DEQ, the City will proceed with a risk assessment for the site that will establish the likelihood and degree, if any, of potential risks to residents and workers in the vicinity of the project. A draft risk assessment report will be submitted to the DEQ for review under this scope of work.

## Task 5—Wastewater Treatment Plant Impact Analysis

The City operates its wastewater treatment plant under a National Pollutant Discharge Elimination System (NPDES) permit administered by the DEQ. Understanding potential impacts to the wastewater treatment systems are integral to facility analyses; establishing a plan for the plant is an early planning need. City personnel most familiar with the wastewater treatment systems will direct and guide this analysis. The Phase 1C objectives and scope below build on work completed to date. Objectives include:

- Assessing impacts to and options for wastewater treatment plant alterations and relocation.
- Assessing permit ramifications, identify processes with DEQ.
- Identifying options for interim operation of the plant and lagoon during fill operations.
- Preparing feasibility study and predesign for new treatment plant and associated improvements to City infrastructure.

The following tasks will be completed to gather information to inform the City on the best course of action to address impacts to the wastewater treatment plant:

- Identify impacts of the landfill development to system layout and operations.
- Identify/assess reconfiguration options and costs.
- Identify/assess relocation options and costs.
- Prepare feasibility study outlining options.
- Select option(s) for Phase 2.

An initial analysis has been prepared generally addressing impacts, reconfiguration options, and relocation options. Continuation of these efforts and further examination of the costs, schedule, and additional treatment system options, as well as funding analysis, will be performed in this scope of work.

Phase 2 will develop detailed options identified in Phase 1C, and work towards selection of a preferred alternative. The scope of this phase is contingent upon the selected options and is

expected to include the design of moderate to extensive system modifications and a new NPDES permit or amendment to the current permit.

## Task 6—Permitting

The City will work with the DEQ and other stakeholders throughout the design to ensure fluidity with the facility development process. Regular communications and meetings are anticipated. The final DEQ Solid Waste permit application will include a compilation of the following information:

- Site Development Plan (Task 3)
- Signed Land Use Compatibility Statement
- Recommendation from the local solid waste planning authority
- Demonstration of need (market analysis)
- List of other needed permits
- Certificate of Business Registry
- Fees
- Other information requested by DEQ

In addition to DEQ Solid Waste permitting, a Joint Permit Application (JPA) submittal will be prepared to address federal and state regulations regarding aquatic resources (e.g. in-water construction, wetland impacts). One site-wide JPA will be prepared to obtain necessary approvals to construct the lagoon conversion facility and ancillary infrastructure and facilities. The JPA will include:

- Project characterization and alternatives analysis
- Biological evaluation for Endangered Species Act consultation with the National Marine Fisheries Service
- Water quality impacts assessment to the Oregon Department of Environmental Quality Water Quality Division for Clean Water Act compliance
- Cultural resources evaluation for adherence to the Historic Preservation Act
- Wetland delineation and evaluation for compliance with Section 404 of the Clean Water Act
- Project mitigation status documentation
- Compiled design drawings and supporting information
- Federal, state, and local agency coordination

## Task 7—Phase 2 Work Plan Development

Phase 2 of the Lagoon Repurposing project will include efforts to continue the design and permitting efforts through a final project design, final solid waste facility permit, and ancillary facilities design and permitting (support facilities, offload facilities). As part of the Phase 1C effort, a work plan will be prepared to identify and address data gaps, agency responses to the initial design submittal, and prepare a schedule and task list for completion of the project; the Phase 2 task (not currently scoped) will implement that work plan.

The Phase 2 Work Plan will identify tasks to prepare the following items:

- Final Design Report, 100% Design Plans and Specifications
- Final Risk Assessment
- Construction Work Plan addressing project team and organization, preparation of Quality Assurance/Quality Control Plans, and reporting requirements
- Operations Plan addressing long-term operation of the landfill facility
- Environmental Monitoring Plan
- Closure and Post Closure Plan
- Financial Assurance documentation

### 3 Budget and Deliverables

Task budget and deliverables are provided in the table below.

Task	Work Elements	Deliverables	Budget
Task 1—Market Study Update	Update project costs, assumptions, Net Present Value calculation	Market Study Update	\$43,700
Task 2—Geotechnical Studies	Seismic analysis of existing lagoon, seismic and settling calculations for facility	Geotechnical memorandum	\$109,300
Task 3—Site Development Plan	Facility operations, conceptual design, phasing, leachate management, surface water management, gas management, environmental monitoring, topographic survey	Site Development Plan	\$276,600
Task 4—Risk Assessment and Air Modeling	Update conceptual site model, data evaluation and risk assessment	Risk Assessment Report	\$141,100
Task 5—Wastewater Treatment Plant Impact Analysis	Assess operations and permit impacts of lagoon modification, identify options for modification and relocation of wastewater treatment facility	Wastewater Treatment Plant Impact Analysis Report	\$87,700
Task 6—Permitting	Solid waste permitting, In-water and aquatic resource permitting	Solid Waste Permit Application, Joint Permit Application	\$172,600
Task 7—Phase 2 Work Plan Development	Identify data gaps, prepare scope for Phase 2 site investigation and plans	Phase 2 Work Plan	\$32,200
<b>Total Estimated Cost:</b>			<b>\$863,200</b>