

CITY COUNCIL AGENDA ITEM
CITY OF SHORELINE, WASHINGTON

AGENDA TITLE:	Authorize the City Manager to Execute an Amendment to the Contract with Herrera Environmental Consultants for the Final Design of the Hidden Lake Dam Removal Project in the Amount of \$176,191
DEPARTMENT:	Public Works
PRESENTED BY:	Tricia Juhnke, City Engineer
ACTION:	<input type="checkbox"/> Ordinance <input type="checkbox"/> Resolution <input checked="" type="checkbox"/> Motion <input type="checkbox"/> Discussion <input type="checkbox"/> Public Hearing

PROBLEM/ISSUE STATEMENT:

On June 4, 2018, Council authorized a contract with Herrera Environmental Consultants, Inc. (Herrera) to complete the design of the Hidden Lake Dam Removal Project. The scope of the project grew to include trail and park user enhancements and private property easement acquisitions which required an amendment to the contract, which was authorized by Council on June 24, 2019.

Since then, the project has proceeded to the final design phase. This second amendment to the Herrera contract is necessary to provide professional services to finalize the design of both phases of the project (Dam Removal and Culvert Replacement), support bidding and construction of Phase 1 (Dam Removal) and provide post-construction monitoring through the end of 2023. Amendment 2 will also extend the contract through the end of 2023 as needed to support the current project schedule.

RESOURCE/FINANCIAL IMPACT:

Amendment 2 to the Herrera contract will increase the contract amount by \$176,191, which brings the new contract total to \$1,048,272. This amendment will be partially funded by a King County Flood Control Grant and revenue is available in the Surface Water Utility fund to cover the remainder of the costs.

The additional two grants partially funding this project are specially for Phase 1 (Dam Removal) construction and design of tasks not included in this Amendment.

Below is a breakdown of funding for the Hidden Lake Dam Removal project:

EXPENDITURES

Herrera Original Contract + Amendment 1	\$872,081
Amendment 2	\$176,191
Right-of-Way Acquisition	\$444,050
City Administration	\$150,000
Construction	\$6,900,000
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Total Cost	\$8,542,322

REVENUE

Land and Water Conservation Funding (RCO)	\$447,975
King County Flood Control District Flood Reduction Grant	\$300,000
King County WaterWorks Grant	\$ 50,000
Surface Water Capital Fund	\$7,744,347
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Total Revenue	\$8,542,322

RECOMMENDATION

Staff recommends that the City Council authorize the City Manager to execute an amendment with Herrera Environmental Consultants for the final design, construction administration assistance, and post-construction monitoring of the Hidden Lake Dam Removal Project (Phase 1) in the amount of \$176,191.

Approved By: City Manager **DT** City Attorney **MK**

BACKGROUND

Hidden Lake is an artificially created pond located east of the intersection of NW Innis Arden Way and 10th Avenue NW, partially within Shoreview Park. The current dam and lake were constructed in 1995 by King County. Since the dam's construction, sediment has been deposited in the lake at a much higher rate than expected requiring the City's Surface Water Utility to remove large volumes of sediment to maintain the lake as an open water feature. This came at a large expense to the utility and on September 8, 2014, [the City Council authorized staff to cease dredging the lake](#) and begin a phased approach to remove Hidden Lake Dam and reestablish Boeing Creek through the existing lake bed.

[The City Council authorized Herrera to complete an alternative analysis](#) on May 23, 2016 to investigate additional downstream alternatives. Staff recommended that a second phase of the project be added to replace the existing culverts below NW Innis Arden Way to remove the fish passage obstruction and improve flood conditions in the area. Herrera also completed additional [project pre-design efforts, authorized by City Council](#) on October 2, 2017.

The [original design contract with Herrera was authorized by the City Council](#) on June 4, 2018. The scope of the original contract included engineering design and permitting services for both phases of the Hidden Lake Dam Removal project. The [first amendment, authorized by the City Council on June 24, 2019](#), increased the contract scope to include the more complex culvert design, private property acquisition services, and design for trail and park user enhancements that were added as a result of obtaining a grant from the Recreation and Conservation Office (RCO)'s Land and Water Conservation Funding (LWCF).

The project is currently in the design phase with 100% design for both phases expected before the end of 2021. Construction of Phase 1 (Dam Removal) is scheduled for summer 2022.

DISCUSSION

This contract amendment will extend the scope for tasks not included in the original scope and Amendment 1. This amendment will increase the scope to include assistance in bidding and construction efforts as well as the post-construction monitoring of the proposed engineered stream structures for Phase 1 of this project. This amendment will also include additional scope for finalizing both phases of design and work beyond the original scope for permitting, geotechnical analysis, and property acquisition. The scope of work is included as Attachment A.

Additionally, Herrera's contract has an end date of December 31, 2021. Amendment 2 will extend the contract by two years, with a new end date of December 31, 2023, as needed to support construction of Phase 1 improvements and provide one year of post-construction monitoring.

ALTERNATIVES ANALYSIS

The alternative to authorizing this contract amendment is to take no action. The no action alternative would leave City staff poorly equipped to obtain all necessary permits and final design for the project. This would put the project at a serious risk of not being completed.

COUNCIL GOAL(S) ADDRESSED

Progress on the Hidden Lake Dam Removal Project helps to implement City Council Goal 2: Continue to deliver highly valued public services through management of the City's infrastructure and stewardship of the natural environment.

RESOURCE/FINANCIAL IMPACT

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Staff recommends that the City Council authorize the City Manager to execute an amendment with Herrera Environmental Consultants for the final design, construction administration assistance, and post-construction monitoring of the Hidden Lake Dam Removal Project (Phase 1) in the amount of \$176,191.

ATTACHMENTS

Attachment A: Herrera Environmental Consultants Hidden Lake Dam Removal Project
Scope of Work (Amendment #2)

ATTACHMENT A

CONTRACT 8961.02 AMENDMENT 2

SCOPE OF WORK

HIDDEN LAKE DAM REMOVAL PROJECT FINAL DESIGN AND PERMITTING

The City of Shoreline (City) plans to remove an existing dam impounding Boeing Creek at Hidden Lake on the western edge of Shoreview Park, restore a free-flowing stream through the lake area, and replace the existing Boeing Creek culverts beneath NW Innis Arden Way, immediately downstream of the dam site, with a wider culvert. Herrera Environmental Consultants (Herrera) is leading a team of firms in assisting the City with final design, permitting, and related tasks for the project. This scope of work describes the activities, assumptions, and deliverables associated with additional work that was not included in the original contract or in contract Amendment 1, that the Herrera team will perform under the following tasks:

- Task 1 - Geotechnical Analysis
- Task 10 – Environmental Permits
- Task 12 - Final Design for Culvert Replacement
- Task 14 - Project Management
- Task 16 – Property Easement Support Services Allowance
- Task 17 – Construction Support Services
- Task 18 - Geotechnical Services During Construction
- Task 19 – Year 1 Post-Construction Monitoring for Dam Removal and Stream Restoration

Herrera will lead and coordinate the work of all tasks, with subconsultants serving in the following roles for this amended scope of work: HWA GeoSciences (HWA) – geological and geotechnical investigations and analysis; Jacobs – culvert structure and retaining walls, roadway improvements, and traffic control design; RES Group NW – easement documents and negotiations; Pacific Geomatic Services – land survey and mapping support for easements. QA/QC review work by the team is incorporated in each task as applicable, and budgeted accordingly.

Task 1. Geotechnical Analysis

Task 1C. Geotechnical Support Services for Environmental Critical Areas Assessment

Comments from the City’s Planning and Community Development (PCD) Department required additional analysis and documentation by HWA to enable Site Development Permit review for the dam removal phase of the project. In addition, HWA will need to respond to comments from a third-party reviewer. The work to address those comments requires issuing another version of the geotechnical report.

Deliverables:

- Third-party review will require one round of response to comments.
- Revisions to draft Geotechnical Report to fully address all PCD comments – PDF file of clean, updated report.
- Response letter to third-party review comments.

- Revisions to draft Geotechnical Report to incorporate responses to all third-party review comments – PDF file of clean, updated report.

Task 1D. Geotechnical Support Services for Final Design

As a result of needing to do more work in Task 1C, the budget for completion of geotechnical analysis support for both phases of construction needs a supplement. HWA will provide geotechnical support to the design team as needed during final design development (see Tasks 11 and 12 for details of that development work), including but not limited to:

- Review and comment on design plans, draft special provisions, and cost estimate unit prices as requested
- Provide input for structural engineering design to address responses to PCD Comments.

Deliverables:

- Comments on draft special provisions in the form of tracked edits in Microsoft Word electronic files.
- Comments on construction items and unit prices via email or in Microsoft Excel electronic files
- Comments on construction drawings as “redlines” in Adobe .pdf file format

Task 10. Environmental Permits

Task 10A. Critical Areas Report and Mitigation Plan

PCD reviewers had additional comments on this report after it was thought to be finalized by the project team. Herrera addressed all of the PCD comments in producing a revised final version of the report to use in Site Development Permit applications for each phase of planned construction. Additionally, changes in the planned area of site clearing and planting on the south side of NW Innis Arden Way for culvert replacement construction resulted from easement negotiations with those owners, requiring changes in the description of project impacts on critical areas and the required mitigation for the revised impact analysis.

Deliverables:

- Final Critical Areas Report and Mitigation Plan (Microsoft Word and Adobe PDF electronic file formats)

Task 10C. Permit Applications and Support

As the timeline for completing acquisition of all required project permits and regulatory approvals is extending beyond when the original contract for this task envisioned, the work required to assist the City in obtaining permits and approvals has increased. This amendment replenishes budget in this task to support the ongoing permitting work.

Deliverables:

- Responses to questions and comments from the City’s Planning and Community Development Department, tribes, and state and federal agencies.

Task 12. Final Design for Culvert Replacement

Changes and additions in the design of this part of the project are needed to accommodate requests of individual property owners on the south side of NW Innis Arden Way as part of easement negotiations. These changes include fencing on private properties, adjustments to the area of clearing and thereafter

planting on private properties, and addition of large quarry rock to buttress the slope below a private yard on the west side of the creek. Completion of other task work to date required additional budget beyond what was authorized, which led to moving some of the budget out of this task into other tasks. This amendment replenishes budget in this task to support completion of design for construction advertisement.

Deliverables:

- The design drawings, specifications, and construction cost estimate input to be produced for the project will be adjusted to reflect changes in the design on private properties. Additional drawing sheet details.

Task 14. Project Management

Herrera’s level of effort to manage the project team expands commensurate with the added work in the tasks described above. Additionally, the amended contract scope of work has an end date of December 31, 2021. The extent of project management by the Herrera team increases as a result of several of the tasks described in this Amendment 2 scope of work, which will be completed in 2022 and 2023.

Assumptions:

- The first phase of construction (dam removal, stream restoration, and trail improvements) will be completed in 2022.
- The deliverables in this task will be comparable to the deliverables outlined in the original contract, commensurate with the extended period of time to complete the work of this task. One exception is the frequency of project management coordination meetings. The scope of this task in the original contract includes biweekly project management check-in meetings with the City’s project manager, and Amendment 1 assumed those meetings would continue through early 2021. Biweekly check-in meetings will no longer be necessary by the end of March 2022.

Deliverables:

- Notes from project management meetings to guide ongoing work and document key decisions
- Detailed project schedule updates
- Monthly invoices and progress reports

Task 16. Property Easement Support Services Allowance

Task 16A. Property Easement Acquisition Support

The work to complete all easement negotiations and associated documentation required a greater effort from RES Group NW (RESGNW) and Herrera than was budgeted, due mainly to prolonged negotiations with iterative easement documentation for several of the parcels involved. This amendment backfills the budget expended to complete all of the easement acquisition work so that a deficit in this task does not undercut budget needed to complete other tasks.

Deliverables:

- No changes to deliverables defined in contract Amendment 1, except for additional iterations of draft easement documentation and calculated compensation for individual property owners before finalizing and recording all easement documents.

Task 16B. Property Boundary Surveys and Easement Descriptions

Pacific Geomatic Services (PGS) needed to prepare several updates to easement exhibits showing spatial areas of temporary and permanent easements as a result of alterations in the project design to address property owner concerns and requests. This work exceeded the budget that was in place for PGS' assistance in this task, and Herrera did not have budget in this task but needed to assist in several ways as the easement documents were prepared. This amendment backfills the budget expended to complete all of the easement acquisition work so that a deficit in this task does not undercut budget need to complete other tasks.

Deliverables:

- Revisions to easement legal descriptions and exhibit maps for several parcels.

Task 17. Construction Support Services

The Herrera team will provide a variety of support services for the first phase of project construction. These services include but may not be limited to the following:

- Assist in preparing addenda to the bid documents if necessary.
- Responses to bidder questions.
- Support the City's construction management team with reviewing and commenting on contractor submittals required in the bid documents.
- Support the City's construction management team with review of contractor requests for information (RFIs) associated with the design plans and specifications.
- Prepare design changes to selected drawings if a need arises due to conditions encountered onsite during construction that are not consistent with the design plans.
- Perform site inspections at key times during construction, when requested by the City. For each day of inspection work performed, prepare a daily construction inspection report documenting observations, supporting photos, and recommendations for ongoing work.
- Review, finalize, and stamp construction Record Drawings.

Assumptions:

- Construction of the dam removal and stream restoration work will occur in summer/fall 2022.
- Construction of the culvert replacement work will occur in summer/fall 2024, for which this scope of work does not include any support services.
- City staff and/or a consultant(s) under separate contract will lead all aspects of construction management and administering the construction contract, inclusive of daily onsite inspections and filling the role of the onsite engineer through the duration of construction.
- The City will consolidate Record Drawing redlines for consistency prior to providing them to the Consultant for final, cleaned-up production.
- The Consultant will provide up to 80 labor hours of onsite inspection work for dam removal and stream restoration construction, not including travel time from offices in Seattle.

Deliverables:

- Written responses to RFIs and submittal reviews as requested by the City – electronic files in formats to be established by the City
- Daily inspection reports for days on which consultant team staff are onsite performing inspections – electronic file format to be established by the City

- Record Drawings – electronic files in AutoCAD and .pdf file formats

Task 18. Geotechnical Services During Construction

Construction for the dam removal will be performed within areas that classify as Moderate to High Risk Landslide Hazard Areas and Very High Risk Landslide Hazard Areas and their buffers. Suitability of the conclusions and recommendations provided in HWA's Geotechnical Report completed to meet the requirements SMC 20.80.224(F) for alterations in a Very High Risk Landslide Hazard Area is dependent on sufficient monitoring and testing during construction by HWA to confirm the conditions encountered are consistent with those indicated by the explorations, that the geotechnical aspects of construction comply with the contract plans and specifications, and to provide recommendations for design modifications should conditions revealed during construction differ from those anticipated. Specific geotechnical support services and on-site geotechnical inspections for monitoring the construction are listed below. Note that HWA cannot provide confirmation of, or acceptance for, elements that were not observed during their installation.

- Assist consultant team with responses to bidders' questions, and preparing addenda to design documents as needed for geotechnical aspects of the project.
- Review and comment on submittals related to geotechnical aspects of the project, including proposed sources for imported aggregate and geotextile materials, temporary excavation and shoring plans, soldier pile drilling and installation plans, dewatering plans, and Diamond Pier boardwalk foundation submittals.
- Review contractor requests for information (RFIs) associated with the design plans and specifications as requested by the City.
- Provide consultation during construction. This may include site visits (up to 2) for items such as temporary sloping, shoring, and potential impacts to adjacent slopes.
- Provide full-time observation of the excavation and emplacement of 8 piles to be installed for the soldier pile wall north of the culvert in the first phase of construction. It is anticipated this will take about 5 working days at 10 hours each day.
- Conduct up to three half-day site visits at up to 6 hours each to observe if exposed slope materials within the stream channel excavation are consistent with the soil conditions observed in the geotechnical borings and will provide adequate slope stability for the interim condition between dam removal construction completion and the start of culvert replacement construction.
- Conduct monitoring of Diamond Pier pin-piles installation for the trail boardwalk to confirm adequate bearing capacity for the Diamond Pier foundations. It is anticipated this will take up to 20 hours of work, concentrated at the beginning of pin-pile installation work (2 days onsite assisting the City's primary inspector) and a few hours of follow-up site visit time if different subsurface conditions are encountered during completion of pile installation for the total length of boardwalk.
- Provide QA of contractor submittal responses, field reports, and coordination with design team and City personnel for site visits, submittals, and construction meetings.

Assumptions:

- Site visits will be coordinated by City personnel, and should provide at least 24 hours advance notice.
- Number and length of site visits are estimated based on assumed rates of progress by the Contractor. The actual time spent performing construction inspections will depend on the

Contractor's choice of equipment, the conditions encountered, the weather, and other factors beyond HWA's control.

- A final inspection letter for submittal to the City will not be needed until completion of the second phase of project construction in 2024.

Deliverables:

- Written responses to RFIs and submittal reviews – electronic files in formats to be established by the City
- Daily inspection reports for days on which HWA staff are onsite performing inspections

Task 19. Year 1 Post-Construction Monitoring for Dam Removal and Stream Restoration

Herrera will conduct monitoring of the constructed project elements in the dam removal phase of construction to satisfy anticipated permit requirements for mitigation monitoring, and also to confirm that the stream channel is functioning as intended. Herrera will prepare a brief monitoring report that addresses permit requirements for the report contents, and submit a draft for City review before finalizing it for submittal to applicable regulatory agencies.

Assumptions:

- This monitoring will occur in 2023, and the reporting prepared to document it will be completed before the end of 2023 to coincide with completion of all other tasks described in this scope of work.
- The City will oversee all maintenance occurring at the site for Year 1 and report to Herrera when maintenance is occurring so that monitoring can be timed appropriately.
- Up to two days of site visits will be conducted by a biologist and two engineers to set up monitoring transects/plots, survey points, collect monitoring data and photographs.
- Comparable monitoring reports prepared by Herrera for other projects in recent years will form a basis for agreeing with the City on the outline structure and format for the report before the draft is written.

Deliverables:

- Monitoring site visits
- Year 1 monitoring report – draft and final