Los Cerritos Wetlands Authority

Date: **February 7, 2019**

To: **Governing Board Members**

From: **Mark Stanley, Executive Officer**

Subject: **Item 11: Consideration of a resolution to a) authorize the Executive Officer to accept grant funds subject to award from the National Fish and Wildlife Foundation for the Los Cerritos Wetlands Planning and Restoration Project and b) authorize the chair, or designee, to negotiate and execute a contract amendment to Environmental Science Associates to include additional work needed to fulfill the National Fish and Wildlife Foundation Grant.**

RECOMMENDED ACTION: That the Los Cerritos Wetlands Authority (LCWA) a) authorize the Executive Officer to accept grant funds subject to award from the National Fish and Wildlife Foundation for the Los Cerritos Wetlands Planning and Restoration Project and b) authorize the chair, or designee, to negotiate and execute a contract amendment to Environmental Science Associates to include additional work needed to fulfill the National Fish and Wildlife Foundation Grant.

BACKGROUND: The Los Cerritos Wetlands Authority (LCWA) authorized a contract to Environmental Science Associates (ESA) for the Los Cerritos Wetlands Restoration Plan Program Environmental Impact Report (EIR) (LCWA17001) in August 2017 (Resolution 2017-04). The scope of this contract included building upon the findings of the Conceptual Restoration Plan and focused on identifying an optimized ecological restoration plan. The scope included analysis through the California Environmental Quality Act (CEQA) to inform potential environmental impacts resulting from the implementation of the preferred restoration alternative across the entire Los Cerritos Wetlands Complex. The project will result in the adoption of a Program EIR for which the LCWA will be the Lead Agency. Both the restoration planning and development of the EIR will include a public involvement process.

The Los Cerritos Wetlands Restoration Plan, which is currently undergoing programmatic CEQA environmental review, has identified the need for a U.S. Army Corps of Engineers (USACE) Section 408 permit for the Phase 1 restoration to move forward. A Section 408 permit is required when alterations are made to any USACE federally-authorized civil works project (USACE EC 1165-2-216). The permit requires a description of the proposed alteration and documentation showing that the proposed alteration would not impair the usefulness of the federal project or be injurious to the public interest.

In the Central Area of the site, the Restoration Plan potentially includes breaching or removing/replacing the existing USACE-certified flood control levee along the San Gabriel River flood control channel in Phase 1 to introduce tidal circulation into the restored wetland. The flood management function of the levee will be replaced by a new, vegetated setback levee around the perimeter of the existing and proposed wetlands.

In hopes of securing funding for the initial 408 permitting process, the LCWA applied for funding through the National Fish and Wildlife Foundation's National Coastal Resilience Fund Grant Program on August 7, 2018. On November 18, 2018 the LCWA was notified that it's application

for the “Los Cerritos Planning and Restoration Project” had been accepted, and that the LCWA would be awarded $249,500.00 for this project. Activities under this grant will support development of a USACE Section 408 permit application for these changes to the levee system. Specifically, the grant will cover preparation of a flood hydrology and hydraulics (H&H) report as the first step in the H&H risk and uncertainty (R&U) analysis required for USACE Section 408 permitting. The purpose of the flood H&H analysis will be to 1) show that the restoration project will maintain or reduce the probability of flooding relative to existing conditions, 2) to develop flood protection infrastructure design criteria, such as levee heights, that meet USACE requirements, and 3) to verify that the design criteria also meet requirements of the County of Los Angeles, who manages the current levees, and FEMA.

The scope associated with the 408 permitting will be in addition to ESA’s existing scope for the LCWA Program EIR, therefore ESA’s contract necessitates amendments to include the additional scope and budget. The proposed scope of work for the grant to be completed with assistance from ESA is detailed in Exhibit A, and a proposed task list and budget is detailed in Exhibit B. The project is expected to be completed by February 29, 2020.

FISCAL: The FY 18/19 budget revisions will reflect the $249,500 in grant funds from the National Fish and Wildlife Foundation. Roughly 10% of the grant will be budgeted toward project management. Approval of this item and the negotiation of the contract will not result in any changes to the current LCW EIR funding.

Exhibit A

Scope of Work

The following are tasks and services to be provided by Environmental Science Associates (ESA) through implementation of a contract amendment:

Task 1. Flood Risk Analysis Workplan

LCWA will develop a detailed workplan to accomplish the H&H analysis for the Section 408 submittal in coordination with the County and USACE. Our general approach will be to identify the current level of flood protection based on a H&H analysis, and then develop the proposed flood protection program for the Central Area of the Los Cerritos Wetlands Restoration Project to comply with the results of the H&H analysis (i.e., specify levee locations and elevations to provide a comparable level of flood protection to current conditions, based on the H&H analysis).

The detailed workplan will identify the following:

- Types of hydraulic and hydrodynamic models (e.g., one- and two-dimensional HEC-RAS hydraulic models).
- Hydrologic and hydraulic parameters included in the H&H analysis, including design discharge, channel roughness, antecedent channel conditions, and the downstream coastal water level boundary condition.
- Sea-level rise scenarios to be analyzed per USACE policies
- Model run catalog listing the specific model runs.

We anticipate that the flood analysis will use a combination of two-dimensional HEC-RAS hydrodynamic modeling and a sediment transport analysis for modeling efficiency, comparison, and ease of review and future use by the USACE and the County. We will also consider alternative models in a model selection process. The model selection and applications of these models will be detailed in the workplan and reviewed and approved by the USACE in advance of developing updated models for the proposed restoration plan and modeling analyses.

Deliverables

Draft and Final Flood Risk Analysis Workplan.

Task 2. Hydrodynamic Model Development

LCWA will develop a hydraulic model for existing conditions and the proposed Phase 1 restoration plan. LCWA will:

- Develop model geometry for existing conditions based on surveys conducted under Task 3.
- Develop and input model bathymetry for the proposed Central Area restoration based on the Restoration Plan currently in development by LCWA.

- Perform a model run for the proposed conditions over a spring-neap cycle (14-day simulation) with dry-weather conditions (i.e., typical tidal conditions) (1 model run included). This model run will be used to check (1) model performance and (2) the potential for tidal damping.

Deliverables

Draft Hydrodynamic Model report section, for inclusion in H&H Report.

Task 3. Data Collection and Model Calibration

LCWA will collect data to verify model parameters (Tasks 2 and 5). We will collect water level data during the winter/spring season to characterize storm events and improve model calibration for flood conditions if appropriate storms occur. We also propose a channel bathymetry survey to develop channel cross-sections for the hydraulic model. We will also collect channel sediment samples to analyze grain size distribution as input for the sediment transport analysis in Task 5. Using these data, LCWA will perform calibration of the existing conditions hydraulic model, which will improve the flood analysis and development of the flood management design (Task 2).

LCWA will perform up to two existing conditions model runs and compare model results to the water level data to check existing conditions model calibration. The two runs will be for (1) typical tide conditions and (2) a storm event, if captured in the data.

Deliverables

Draft Data Collection and Model Calibration report section (for H&H Report).

Task 4: Preliminary Flood Hydrology & Hydraulics Analysis

Per the USACE Section 408 submittal process, LCWA will perform a preliminary H&H flood analysis. LCWA will model existing site conditions (without project conditions) and the proposed restoration (with project conditions). We will develop preliminary elevations for flood management elements of the project (i.e., new levees, high ground) to provide (as a minimum) the same level of flood protection as currently exists, based on the analysis results.

LCWA will model flood water surface elevations (hydraulics/hydrodynamics) for a range of select flood discharge events (e.g., 10-, 25-, 50-, 100-, 500-year discharge events) for both existing (without-project) conditions and the proposed restoration plan. We will use peak flood discharges from USACE's base conditions hydrology analysis (USACE 1991) and model the County and FEMA standard flood events to meet the County and FEMA requirements.

Deliverable

Draft Preliminary Flood Hydrology & Hydraulic Analysis report section (for H&H Report).

Task 5. Sediment Transport Analysis

LCWA will evaluate sediment transport in the San Gabriel River project reach for with- and without-project conditions to assess potential changes in sediment transport and any associated

impacts. We will combine qualitative and quantitative evidence to estimate sediment loads and characteristics, and then use hydraulic parameters estimated in Task 4 to evaluate sediment inputs relative to sediment transport capacity for pre- and post-project conditions. We will use available sediment supply data, as well as the channel bed gradation data collected under Task 3 as input to the sediment transport analysis.

LCWA will use the results of Task 4 as inputs to standard sediment transport equations to estimate the sediment transport capacity of the San Gabriel River under existing conditions and proposed restoration project conditions. The estimated sediment transport capacity will then be compared to the available sediment supply to evaluate whether the existing channel is sediment supply- or transport-limited. (We anticipate that the San Gabriel River channel is supply-limited.) We will then perform a similar analysis of the proposed project and evaluate how the project will affect sediment transport in the channel. If significant channel sedimentation is predicted, we will evaluate the sensitivity of water levels in the river to the potential channel aggradation. We will also assess the potential maintenance requirements and refine the proposed design to minimize these.

Deliverables

Draft Sediment Transport Analysis report section (for H&H Report).

Task 6. Flood Management Design

LCWA will develop the basis of design for the flood protection levees along E 2nd Street and Shopkeeper Road based on the criteria developed as part of Task 4 and a geotechnical assessment. The design will include proposed levee crest elevations, levee design sections, armoring, and existing levee improvements, such as levee tie-ins.

Deliverables

Draft Flood Management Design report section (for H&H Report).

Task 7: H&H Report

LCWA will develop an H&H Report to document the analyses described above. The report will also include summaries of the Sediment Transport and Geomorphology Technical Report, currently being prepared as part of the CEQA analysis. The H&H Report will be one part of the Section 408 submittal.

LCWA will prepare report sections for each of the above subtasks as each task is completed. Draft report sections will be submitted to the County for review and then to the USACE, if appropriate, to allow for a sequenced review process and to provide a complete H&H Report that will meet USACE expectations and requirements. USACE coordination and meetings during this review process are included in Task 8 below.

LCWA will provide an administrative draft report for review by the County. We will respond to review comments and provide a revised draft report for submittal to the USACE. Following their review, we will respond to comments and provide a final report.

Deliverables

Admin Draft, Draft, and Final H&H Report (for the Section 408 Submittal).

Task 8. USACE Meetings and Coordination

LCWA will coordinate and meet with the County and the USACE to review the H&H analysis at key check-in points. LCWA will meet with USACE H&H staff to review the detailed workplan and obtain their input/approval on the workplan.

The scope and budget include up to five additional meeting with USACE staff to review the results of the above tasks, for a total of 6 meetings or conference calls. The allocation for meetings and coordination includes:

- Meetings: 4 hours each for the LCWA Project Manager and Project Director or Task Lead for up to 6 meetings or conference calls (including meeting preparation, attendance, and follow up).
- Coordination: 4 hours per month for the LCWA Project Manager and 16 hours for the Project Director or Task Lead over the 18-month schedule for completing the H&H Report.

Note, under this grant, we are requesting funding for half of this task. Funding to cover the remaining half was requested through FEMA's Hazard Mitigation Grant Program.

Deliverables

Up to 6 meetings or conference calls with the USACE and the County staff.

#	Task	Description	Cost Estimate
1	Flood Risk Analysis Workplan	Develop workplan for full 408 permitting process	$25,500
2	Hydrodynamic Model Development	Build 1-D and 2-D HEC-RAS models for existing conditions and project conditions	$26,250
3	Data Collection and Model Calibration	Water level & grain size data collection and bathymetry survey + model calibration runs	$48,000
4	Preliminary Flood Hydrology & Hydraulics Analysis	Determine appropriate hydrology, run models for different events and boundary conditions, conduct sensitivity analysis	$88,250
5	Sediment Transport Analysis	Use 1-D HEC-RAS model to model sediment transport with and without project conditions	$68,500
6	Flood Management Design	Progress levee design (includes geotech assessment)	$60,000
7	Section 408 Submittal A Reporting	Reporting on previous tasks	$23,500
8	USACE Meetings & Coordination	Tasks 1-4	$13,500
9	USACE Meetings & Coordination	Tasks 5-6	$13,500
10	Project Management	LCWA grant and project management	$24,500
	Project Total		$391,500
	Total NFWF Funding Request	**NFWF Funding Request for Tasks Tasks 1-4,7,8 and 10**	**$249,500**

February 7, 2019 – Item 11

RESOLUTION 2019 – 03

RESOLUTION TO AUTHORIZE THE EXECUTIVE OFFICER TO ACCEPT GRANT FUNDS SUBJECT TO AWARD FROM THE NATIONAL FISH AND WILDLIFE FOUNDATION FOR THE LOS CERRITOS WETLANDS PLANNING AND RESTORATION PROJECT

WHEREAS, the Los Cerritos Wetlands Authority (LCWA) has been established between the San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy, the State Coastal Conservancy, the City of Long Beach and the City of Seal Beach to facilitate the acquisition, protection, conservation, restoration, maintenance and operation, and environmental enhancement of the Los Cerritos Wetlands; and

WHEREAS, the Los Cerritos Wetlands Authority has further been established to focus on projects which will provide open space, habitat restoration, and watershed improvement projects within the Los Cerritos Wetlands; and

WHEREAS, the Los Cerritos Wetlands Authority desires to accept Grant Funds subject to award from the National Fish and Wildlife Foundation for the Los Cerritos Wetlands Planning and Restoration Project; and

WHEREAS, the Los Cerritos Wetlands Authority desires to enter into an Agreement with the National Fish and Wildlife Foundation to provide funds for the Los Cerritos Wetlands Planning and Restoration Project; and

WHEREAS, This action is exempt from the requirements of the California Environmental Quality Act (CEQA); and NOW

Therefore, be it resolved that the Board of the LCWA hereby:

1. FINDS that the actions contemplated by this resolution is exempt from the requirements of the California Environmental Quality Act.

2. FINDS that this action is consistent with the purposes and objectives of the LCWA.

3. ADOPTS the staff report dated February 7, 2019.

4. AUTHORIZES the Executive Officer, the authorized signatory, to accept grant funds from the National Fish and Wildlife Foundation for the Los Cerritos Wetlands Planning and Restoration Project and amends the LCWA Budget FY 18/19 as necessary.

5. APPOINTS the Executive Officer, or designee, to execute and submit all documents including, but not limited to, applications, agreements, amendments, payment requests and so forth, which may be necessary for the completion of the aforementioned grant agreement.

~ End of Resolution ~

Passed and Adopted by the Board of the LOS CERRITOS WETLANDS AUTHORITY on February 7, 2019.

_____
Suzie Price, LCWA Chair

ATTEST: _____
David Edsall, Jr.
Deputy Attorney General

February 7, 2019 – Item 11

RESOLUTION 2019 – 04

RESOLUTION TO AUTHORIZE THE CHAIR, OR DESIGNEE, TO NEGOTIATE AND EXECUTE A CONTRACT AMMENDMENT TO ENVIRONMENTAL SCIENCE ASSOCIATES TO INCLUDE ADDITIONAL WORK NEEDED TO FULFILL THE NATIONAL FISH AND WILDLIFE FOUNDATION GRANT FOR THE LOS CERRITOS WETLANDS PLANNING AND RESTORATION PROJECT

WHEREAS, the Los Cerritos Wetlands Authority (LCWA) has been established between the San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy, the State Coastal Conservancy, the City of Long Beach and the City of Seal Beach to facilitate the acquisition, protection, conservation, restoration, maintenance and operation, and environmental enhancement of the Los Cerritos Wetlands; and

WHEREAS, the Los Cerritos Wetlands Authority has further been established to focus on projects which will provide open space, habitat restoration, and watershed improvement projects within the Los Cerritos Wetlands; and

WHEREAS, the Los Cerritos Wetlands Authority accepted Grant Funds subject to award from the National Fish and Wildlife Foundation for the Los Cerritos Wetlands Planning and Restoration Project; and

WHEREAS, the Los Cerritos Wetlands Authority desires to negotiate and execute a contract amendment to Environmental Science Associates for the Los Cerritos Wetlands Restoration Plan Program Environmental Impact Report (LCWA17001); and

WHEREAS, This action is exempt from the requirements of the California Environmental Quality Act (CEQA); and NOW

Therefore, be it resolved that the Board of the LCWA hereby:

1. FINDS that the actions contemplated by this resolution is exempt from the requirements of the California Environmental Quality Act.

2. FINDS that this action is consistent with the purposes and objectives of the LCWA.

3. ADOPTS the staff report dated February 7, 2019.

4. AUTHORIZES the Chair or designee to negotiate and execute a contract amendment to Environmental Science Associates for the Los Cerritos Wetlands Restoration Plan Program Environmental Impact Report, expanding the scope of the contract to include work for the National Fish and Wildlife Grant for an additional amount up to $249,500 for the term of the contract.

~ End of Resolution ~

Passed and Adopted by the Board of the LOS CERRITOS WETLANDS AUTHORITY on February 7, 2019.

_____
Suzie Price, LCWA Chair

ATTEST: _____
David Edsall, Jr.
Deputy Attorney General