AMENDMENT NO. 3 TO
NAPA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
AGREEMENT NO. 220223B (FC)

THIS AMENDMENT NO. 3 ("Amendment No. 3") **OF NAPA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT AGREEMENT NO. 220223B (FC)** ("Agreement") is made and entered, effective as of the 1st day of November, 2024 by and between the NAPA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, a special district of the State of California, hereinafter referred to as "DISTRICT," and HDR Engineering, INC., a Nebraska corporation, whose mailing address is 2365 Iron Point Road, Suite 300 Folsom, CA 95630, hereinafter referred to as "CONTRACTOR."

RECITALS

WHEREAS, on January 4, 2022, DISTRICT and CONTRACTOR entered into the Agreement for specialized services to complete the design of the Floodwalls North of the Bypass Project (PROJECT) to a 35% level, as directed by the District; and

WHEREAS, on March 14, 2023, and June 18, 2024, DISTRICT and CONTRACTOR amended the Agreement to bring the PROJECT to final design and complete unanticipated analyses required for approval from the US Army Corps of Engineers (USACE) for the PROJECT; and

WHEREAS, USACE has required completion of additional analyses related to Geotech and seismic design confirmation in the process of moving from a 65% to a 100% design completion level to obtain final USACE approval of the PROJECT design before DISTRICT can start the advertisement and bidding process, and DISTRICT anticipates the need for additional design services to complete these tasks; and

WHEREAS, additional work is needed to complete environmental documentation for the project related to CEQA and NEPA; and

WHEREAS, DISTRICT desires to engage CONTRACTOR's services during construction of the PROJECT as the Engineer of Record; and

WHEREAS, CONTRACTOR is willing to provide such additional specialized services on the PROJECT design; and

WHEREAS, DISTRICT and CONTRACTOR now desire to modify the provisions of the Agreement to modify the scope of work and increase the maximum compensation by $1,603,891.00 to a new total of ($8,480,351.00).

TERMS

NOW, THEREFORE DISTRICT and CONTRACTOR hereby agree to amend the Agreement as follows:

1. Paragraph 2 of the Agreement is hereby amended in full to read as follows:

2. **Scope of services.** CONTRACTOR shall provide DISTRICT those services set forth in Exhibit "A," attached to the original agreement, Exhibit "A-1," attached to Amendment No. 1, and Exhibit "A-2," attached to Amendment No. 2, and Exhibit "A-3," attached to this Amendment No. 3 and incorporated by reference herein.

2. Paragraph 3, subd. (c), of the Agreement is hereby amended to read as follows:

(c) Maximum Amount. Notwithstanding subparagraphs (a) and (b), the maximum payments under this Agreement shall not exceed a total of EIGHT MILLION FOUR HUNDRED EIGHTY THOUSAND THREE HUNDRED FIFTY-ONE DOLLARS AND ZERO CENTS ($8,480,351.00) for professional services and expenses; provided, however, that such amounts shall not be construed as guaranteed sums, and compensation shall be based upon services actually rendered and reimbursable expenses actually incurred.

3. This Amendment No. 3 shall be effective as of the Effective Date first set forth above.

4. Except as provided in paragraphs (1) through (3), above, the terms and provisions of the Agreement shall remain in full force and effect as last approved.

[REMAINDER OF PAGE LEFT BLANK INTENTIONALLY]

IN WITNESS WHEREOF, the parties hereto have caused this Amendment No. 3 of the Agreement No. 220223B (FC) to be executed as of the date written on the first page of this Amendment.

HDR ENGINEERING, INC., a Nebraska Corporation

By: _____
HOLLY L. KENNEDY, Senior Vice President

"CONTRACTOR"

NAPA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, a special district of the State of California

By: _____
SCOTT SEDGLEY,
Chair of the Board of Directors

"DISTRICT"

APPROVED AS TO FORM Office of County Counsel By: *Shana A. Bagley* District Counsel Date: November 6, 2024	APPROVED BY THE BOARD OF DIRECTORS OF THE NAPA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT Date: _____ Processed By: _____ Deputy Secretary of the District Board	ATTEST: NEHA HOSKINS Secretary of the District Board By: _____

EXHIBIT "A-3"
SCOPE OF WORK

TASK 1. PROJECT MANAGEMENT

Project Management Services, Monthly Progress Reports, and Invoices for the Extended Period of Performance [In Progress]

HDR's Project Manager (PM) and Deputy PM will provide project management services for the extended duration of this task order, including providing monthly invoices and progress reports. The progress reports will summarize the work performed during the month; provide current task order budget and schedule status; and identify technical, budget, or schedule issues.

Deliverables:

- Monthly invoices and progress reports (PDF).

Assumptions:

- Notice to Proceed for this Amendment will be provided in November 2024.
- All work will be completed by March 6, 2028 (extended from September 2025).

TASK 2. PROJECT DELIVERY TEAM COORDINATION MEETINGS FOR THE EXTENDED PERIOD OF PERFORMANCE

Weekly NCFCWCD, U.S. Army Corps of Engineers (USACE), and HDR Coordination Meetings [In Progress]

HDR will attend two weekly coordination meetings for the duration of design as scoped under Amendment No. 2: one meeting with Napa County Flood Control and Water Conservation District (NCFCWCD), and one meeting with NCFCWCD and USACE (Project Delivery Team [PDT] coordination meetings). These meetings will inform NCFCWCD and PDT, respectively, of progress to date, critical activities, interdependencies of work products, key issues and resolutions, schedule status, and key decisions. These meetings were originally scoped to be approximately 30 minutes each; however, due to design complexity, have expanded to one additional hour per week (estimated to be an additional five hours per month). This amendment includes the additional meeting time spent from March to August 2024 and captures additional costs through the 95% design submittal at the end of December 2024.

Deliverables:

- Meeting agendas and notes (PDF).

Assumptions:

- Weekly coordination meetings will continue through April 2025 consistent with Amendment No. 2.
- Coordination meetings will be held weekly and attended by up to four HDR staff (PM, Engineer of Record [EOR], Environmental Lead, and an additional technical lead will attend every third meeting). Meetings will be virtual and last up to 120 minutes combined.

Issue-Specific District Coordination Meetings [In Progress]

HDR will attend weekly meetings with NCFCWCD to discuss Project-specific issues and potential resolutions with the intent of progressing the Project design. In Addendum 2, the

assumption was one meeting for one hour each week. The number and duration of these meetings has been above this original estimate starting in March 2024, resulting in additional effort of approximately 16 hours per month for the PM and EOR.

Deliverables:

- Meeting agendas and notes (PDF).

Assumptions:

- Weekly issue-specific meetings will continue through April 2025 as scoped in Amendment 2.
- Meetings will be held weekly and attended by up to five HDR professionals (Project Manager, Deputy Project Manager/Civil Lead, and up to three additional technical leads attending one-third of the meetings). Meetings will be virtual and up to one hour each.
- Additional meetings requiring four hours of effort for the PM and EOR will extend through the 95% design, or through December 2024.

Weekly HDR Project Delivery Team Coordination Meetings for the Extended Period of Design [In Progress]

No changes or additions to the Scope of Work for this task.

Additional Coordination Meetings [In Progress]

Starting in March 2024, HDR planned for and attended several meetings to coordinate the progression of the design with NCFCWCD, the U.S. Army Corps of Engineers (USACE), landowners, utilities (Pacific Gas and Electric Company [PG&E], City Water), and other stakeholders that were not previously scoped. These meetings were required to progress design and coordinate Project features with stakeholders and gain input/approvals. These coordination meetings included the EOR for an additional effort of 16 hours per month.

Deliverables:

- None.

Assumptions:

- Additional coordination meetings will continue through December 2024.
- Additional effort is anticipated to include 16 hours per month for the EOR.

Quality Assurance/Quality Control Coordination [In Progress]

In order to manage internal and external quality reviews, the Quality Assurance/Quality Control (QA/QC) Manager and EOR prepared for and led additional meetings to allow for Project team members to discuss comment responses in detail. Additional meetings were also required to discuss DQA, ATR, and SAR comments. The additional coordination and meetings started in March 2024 and will extend through the 95% design submittal (through December 2024).

Deliverables:

- None.

Assumptions:

- QA/QC coordination meetings will continue through December 2024.

- The QA/QC meetings will require approximately up to 12 hours per month for the QA/QC Manager.

TASK 3. ENVIRONMENTAL DOCUMENTATION AND PERMITTING SUPPORT

Smelt Surveys at Lincoln Avenue Bridge [New Task – Optional]

HDR will use environmental DNA (eDNA) to survey for delta smelt within the Lincoln Avenue Bridge vicinity. To do so, HDR will collect eDNA samples within the immediate Project area, as well as one additional location upstream and downstream of the bridge (e.g., Trancas Street Bridge, 1st Street Bridge). At each location, two samples will be collected (e.g., one on each side of the river; for a total of six samples per event). Sampling will occur for six consecutive weeks. Delta and longfin smelt samples will be analyzed in triplicate with quantitative polymerase chain reaction (qPCR) Aquatrace Genomics. A draft Smelt Survey Report will be provided with the analysis results, which can be used in negotiating terms with the California Department of Fish and Wildlife for the 2081 Incidental Take Permit.

The draft Smelt Survey Report will be submitted to NCFCWCD for review. Upon receipt of NCFCWCD's comments, HDR will incorporate comments and prepare the final Smelt Survey Report.

Deliverables:

- Draft Smelt Survey Report (PDF).
- Final Smelt Survey Report (PDF).

Assumptions:

- NCFCWCD will coordinate and provide access for sampling.

Supplemental EA/EIR Page Limits Reduction

To meet 40 Code of Federal Regulations (CFR) Section 1501.5, USACE has informed HDR and NCFCWCD that the Supplemental Environmental Assessment (SEA) portion of the SEA/Environmental Impact Report (SEA/EIR) must be a maximum of 75 pages. This mandate is a shift from the Amendment 1 environmental documentation approach, for which HDR has been adhering to the previous approach for preparation of the Administrative Draft SEA/EIR since the beginning of 2024. HDR was informed of this shift in approach and the 75-page limit direction from USACE on September 17, 2024, via email. Therefore, to meet the conditions of 40 CFR Section 1501.5, the HDR team will reduce the SEA portion of the SEA/EIR to 75 pages. HDR intends to work collaboratively with NCFCWCD and USACE to reduce the SEA portion of the SEA/EIR to 75 pages. The following four steps will be employed to streamline the page reduction process:

1. Move select current text in the body of the Administrative Draft SEA/EIR to a table where appropriate.
2. Move select text or subsections in the body of the Administrative Draft SEA/EIR to an appendix.
3. Use a special designation or symbol/character in the body or headings of the Administrative Draft SEA/EIR to denote what is specific National Environmental Policy Act (NEPA) SEA or California Environmental Quality Act (CEQA) SEIR text.

4. Condense current text in the Administrative Draft SEA/EIR into a summary and/or cut text.

Deliverables:

- Administrative Draft Supplemental EA/EIR (MS Word files) (included in Amendment 1).

Assumptions:

- The methods for reducing text/pages identified above are the only methods that will be employed.
- The EIR portion of the SEA/EIR does not need to meet the federal page limit requirements of 40 CFR Section 1501.5 and instead must meet the requirements outlined in the CEQA Guidelines for a Supplemental EIR.
- The SEA/EIR will remain a joint CEQA/NEPA document.

Sturgeon Surveys at Lincoln Avenue Bridge [New Task – Optional]

HDR will use environmental DNA (eDNA) to survey for sturgeon within the Lincoln Avenue Bridge vicinity. To do so, HDR will collect eDNA samples within the immediate Project area, as well as one additional location upstream and downstream of the bridge (e.g., Trancas Street Bridge, 1st Street Bridge). At each location, two samples will be collected (e.g., one on each side of the river; for a total of six samples per event). Sampling will occur for six consecutive weeks. Sturgeon samples will be analyzed in triplicate with quantitative polymerase chain reaction (qPCR) Aquatrace Genomics. A draft Sturgeon Survey Report will be provided with the analysis results, which can be used in negotiating terms with the California Department of Fish and Wildlife for the 2081 Incidental Take Permit.

Deliverables:

- Draft Sturgeon Survey Report (PDF).
- Final Sturgeon Survey Report (PDF).

Assumptions:

- NCFCWCD will coordinate and provide access for sampling.

Separate CEQA/NEPA Documentation [New Task – Optional]

Pending direction and a decision from the USACE Office of Counsel, the NEPA No Action Alternative approach may be different than the No Project approach for CEQA. This direction and decision would result in two changes to the current scope and approach for the SEA/EIR.

- First, the No Action Alternative under NEPA would revert back to the 1998 SGDM Preferred Alternative and what was essentially previously considered in the 1999 FEIS/EIR. This revised No Action Alternative approach would result in additional analyses to determine the potential effects of implementing the No Action Alternative that would need to be carried through each resource topic to identify where there have been changes from the previous 1999 FEIS/EIR; where there are no changes from the 1999 FEIS/EIR this could be stated.
- Second, this direction and decision would likely result in the need to separate the CEQA and NEPA documents since they would no longer be consistent in approaches. Separate CEQA and NEPA documents would result in the preparation of two different Draft

documents for publications that are circulated for separate public reviews, response to public and agency comments on two separate Draft documents, and preparation of two separate Final documents. This separation effort would not meet the current schedule or the current request by the NCFCWCD to accelerate the CEQA documentation and completion.

The USACE Office of Counsel has not decided on this matter so the impact to the currently prepared documents cannot be fully assessed. HDR has included an optional task in this amendment to account for the potential changes identified above and included an assumed level of effort. Once direction from USACE is received, HDR will assess potential changes and impact to the assumed level of effort then discuss with Napa.

Deliverables:

- Draft CEQA (PDF).
- Final CEQA (PDF).
- Draft NEPA (PDF)
- Final NEPA (PDF)

Assumptions:

- The effort required to provide separate documentation for CEQA and NEPA won't exceed $75,000. Once direction is provided on the full requirements of splitting these documents, additional scope and fee may be required.
- Impacts to schedule for splitting the documentation are not captured in this amendment. Once direction is provided on the full requirements, HDR will coordinate with USACE and NCFCWCD on modifications to the project schedule.

TASK 4. HAZARDOUS AND TOXIC MATERIALS SUPPORT

No changes or additions to the Scope of Work for this task.

TASK 5. ECONOMICS

No changes or additions to the Scope of Work for this task.

TASK 6. SITE RECONNAISSANCE

No changes or additions to the Scope of Work for this task.

TASK 7. SUPPLEMENTAL SURVEY AND POTHOLING SURVEY FOR FINAL DESIGN

No changes or additions to the Scope of Work for this task.

TASK 8. HYDROLOGY AND HYDRAULICS

No changes or additions to the Scope of Work for this task.

TASK 9. SCOUR AND EROSION PROTECTION

This task is for additional effort to support comment resolution from the 65% DQA, ATR, SAR, and RWQCB reviews and to support the additional sensitivity analysis for the RIDM Geotechnical Workshop. Comments received on the 65% design required substantial analyses to

address, including supporting sensitivity analyses and additional loading conditions. Analysis sections were added to support the RIDM Geotechnical Workshop and address comments provided by Project stakeholders. These additional analyses are outlined below.

Additional Lateral Erosion Analysis and Support for RIDM Geotechnical Workshop [New Task – Complete]

Based on comments from the ATR, DQA, and SAR on 65% design submittals, additional lateral erosion analysis was required to respond to comments regarding:

- Variations in storm frequency and magnitude per comment 10702137 by Glenn Bellew on the 65% ATR submittal.
- Variations in soil material parameters by location, including critical shear stress and erodibility per comments 69 and 70 by Nate Meisgeier on the DQA 35% backcheck, comments 195 and 196 by Nate Meisgeier on the 65% DQA review, and comment 52 from the SAR review of the 65% submittal.
- Variations in velocity and shear stress per comments 197, 198, by Nate Meisgeier on the 65% DQA review
- Impact of the Project on the existing 36-inch waterline relocation from approximately STA 23+50 to approximate STA 30+00, per comment 65 from the SAR review.
- Inclusion of an overtopping event based on the 35% ATR backcheck of comment 3 by Glenn Bellew on September 27, 2023.
- Inclusion of a Bank Stability and Toe Erosion Model (BSTEM) to provide a more robust analysis per comment 49 from the SAR review.

HDR used the Hydrologic Engineering Center's River Analysis System (HEC-RAS) one-dimensional (1-D) hydraulic model for full buildout Project conditions to develop an unsteady flow BSTEM. The BSTEM is included in the HEC-RAS software. The BSTEM analysis evaluated lateral erosion at cross section locations consistent with the locations of seepage and stability analyses performed with the geotechnical analysis, and at the 36-inch waterline relocation.

HDR selected cross section materials specific to each cross section included in the BSTEM analysis. HDR developed soil strength parameters from review of the laboratory testing data from the geotechnical analysis and the USACE *Napa River Geotechnical Basis of Design Report* (BODR). The National Cooperative Highway Research Program (NCHRP)-Erosion soil test database was used to estimate critical shear stress and erodibility coefficient based on the plasticity index and saturated unit weight of soils.

HDR developed five storms using the five-day, 100-year design storm from the two-dimensional (2-D) model and historical data obtained from the U.S. Geological Survey's Napa stream gauge #11458000:

- The 2005–2006 storm event from December 2005 through April 2006 includes a series of medium to large storm events, with a peak flow rate of 29,600 cubic feet per second (cfs) on December 31, 2005.
- The 1998 storm event includes a series of medium to large storms in rapid succession from January to February 1998, with a peak flow rate of 19,800 cfs.

- The 2005–2006 storm event hydrograph from December 27, 2005, to January 9, 2006, extrapolated to the 100-year design storm event peak flow rate of 44,370 cfs at Napa River, south of Tulucay Creek.
- The 5-day, 100-year design storm as used in the 2-D HEC-RAS model.
- The overtopping storm event, extrapolated from the five-day design storm as used in the 2-D HEC-RAS model.

To assist with the RIDM Geotechnical Workshop, HDR developed additional lateral erosion calculations for the revised geotechnical cross sections at STA 06+20 and STA 36+50. HDR revised the soil parameter inputs to the BSTEM and evaluated the overtopping storm event. HDR evaluated the probability of erosion failure at STA 06+20 and STA 36+50 using the USACE Risk Management Center (RMC) Riverine Suite-Erosion Toolbox, which uses water surface elevations and velocities for loading events up to the top of the floodwall to estimate the conditional probability of failure due to surface erosion on the waterside of a levee.

Deliverables:

- Model results and discussion (to be included in the Design Documentation Report [DDR]).
- Lateral erosion estimates (to be included in DDR).
- Soil parameters for varying soil layers and depths (to be included in DDR).
- Failure probability charts from the RMC Riverine Suite-Erosion toolbox (PDF).
- RIDM presentation (PowerPoint and PDF).
- Written responses to comments.

Assumptions:

- The HEC-RAS 1-D hydraulic model for full buildout Project conditions developed as part of Task 9 is valid; therefore, no calibration or validation of the model is required.
- The unsteady flow model was developed for the proposed condition BSTEM analysis only. The model will not be used for the hydraulic analyses used to determine floodwall heights, freeboard, etc.

Additional Overtopping Scour Protection Analysis [New Task – Complete]

HDR completed additional analysis based on SAR review of the 65% submittal related to:

- Overtopping erosion near STA 15+00 per comment 10 by the SAR.
- Suggestion of the RMC scour behind floodwalls toolbox per comment 65 by the SAR review.
- Overtopping results per comments 60 and 61 by the SAR review.

HDR evaluated overtopping erosion using the RMC Scour Behind Floodwalls Toolbox. Overtopping was evaluated using water surface elevations and durations from the overtopping flood event in the HEC-RAS 2-D hydraulic model for full buildout Project conditions. Vegetal cover estimates (when applicable) were determined in coordination with the HDR landscaping team. HDR determined soil strength and erodibility parameters for the lateral erosion analysis from the geotechnical analysis and the BODR. HDR determined erodibility parameters for critical shear stress from statistical analysis of the NCHRP-Erosion soil test database based on the plasticity index and saturated unit weight of soils.

Deliverables:

- Overtopping erosion calculations (to be included in DDR).
- Recommendations for scour mitigation (to be included in DDR).
- Specifications and details for scour mitigation (95% and 100% deliverables).

Assumptions:

- None.

Revision of Scour Countermeasures at Floodwall [New Task – Complete]

Based on comments 84, 86, and 87 by Cheegwan Lee from DQA regarding the 35% backcheck on the 65% design submittal, a scour analysis was completed that estimated a depth of scour of seven feet, which necessitated the design of additional concrete in the T-wall foundations. HDR re-evaluated the analysis and held a discussion with USACE on June 4, 2024, in which USACE agreed to allow for a reduced footing design if rock slope protection (RSP) scour protection was provided. Design was coordinated with the structural and civil design team, and a revised RSP design was provided for STA 3+00 to STA 6+00 that will allow for a reduced T-wall foundation. HDR calculated peak velocity and shear stresses from the 200-year, 2-D HEC-RAS model. HDR estimated allowable velocity and shear stresses from published sources.

Deliverables:

- Calculations for erosion and scour mitigation (to be included in the DDR).
- Recommendations for scour mitigation (to be included in the DDR).
- Specifications and details for scour mitigation (to be included in the design documents).

Assumptions:

- None.

Additional Coordination/Analysis for RWQCB Comments [New Task – Complete]

HDR completed additional analyses to respond to RWQCB comments related to:

- Pre- and post-Project channel velocity maps within the Lincoln Bridge vicinity per comment 3.
- Scour protection design revised to protect existing RSP on channel banks per comments 8 and 9, and from results of a field tour that RWQCB performed on August 1, 2024 (comment 28).
- Additional analyses for proposed condition hydraulic impacts of pier scour mitigation.
- Coordination and meeting with RWQCB on August 14, 2014, to present revised design.

HDR performed Bridge scour calculations in accordance with HEC-18 and pier scour countermeasure calculations in accordance with HEC-23.

Deliverables:

- Additional HEC-RAS analysis for post-Project conditions considering revisions to RSP extents (to be included in the DDR).
- Revised Plan Sheets for RSP.
- Revised Detail Sheets for RSP.

Assumptions:

- HEC-RAS analysis based on the Project model for full build out conditions.
- Lincoln Bridge geometry based on as-built drawings.
- Abutment scour not considered because Lincoln Bridge does not constrict flows based on results of the HEC-RAS model, reviews of Project topography, as-built drawings, site photographs, site visits, and the California Department of Transportation's (Caltrans') bridge inspection reports.

Additional Coordination/Analysis for SAR Comments on Lincoln Bridge Scour [New Task – Complete]

HDR completed additional analysis to respond to SAR comments regarding revised bridge pier scour protection for the 200-year storm event. HDR performed bridge scour calculations in accordance with Hydraulic Engineering Circular (HEC)-18. HDR performed pier scour countermeasure calculations in accordance with HEC-23. HDR based the HEC-RAS analysis on the Project model for full build-out conditions. HDR based the Lincoln Bridge geometry on as-built drawings.

Deliverables:

- SAR comment response.
- Revised bridge scour calculations considering 200-year storm event (to be included in the DDR).
- Revised pier scour mitigation calculations considering 200-year storm event (to be included in the DDR).

Assumptions:

- HEC-RAS analysis based on Project model for full build-out conditions.
- Abutment scour not considered because Lincoln Bridge does not constrict flows based on results of the HEC-RAS model, reviews of Project topography, as-built drawings, site photos, site visits, and Caltrans bridge inspection reports.

TASK 10. GEOTECHNICAL

Additional Geotechnical Analyses to Address USACE Comments [New Task – Complete]

Under Amendment No. 2, Task 10.F, scope was included for additional geotechnical analyses to address USACE's comments on the 65% design from the SAR, DQA, and ATR reviewers. The results of these analyses were presented in a series of emails and during meetings with reviewers and PDT members between mid-May and early July 2024. During these meetings and through emails, the reviewers requested additional analyses and sensitivity checks, which resulted in additional effort than was estimated under Amendment No. 2. These additional work items included:

- Additional sensitivity analyses of various seepage and stability loading conditions at the selected cross section locations. These included requests to perform additional analyses using revised soil parameters and soil stratigraphy, as sensitivity checks and to further bracket conditions that reviewers sought to consider.
- Additional geotechnical stability analyses in support of scour analysis at STA 6+20. These included performing stability analyses at additional locations within the RiverPointe area, including STA 5+00, 7+00, and 7+12, to evaluate stability conditions at

locations with different slope geometries, including locations that may be steeper and closer to the proposed floodwall alignment than at STA 6+20.

- In a July 12, 2024, email, the DQA reviewer provided comments on the presented seismic slope stability analyses and noted that USACE issued an update to Engineer Regulation (ER) 1110-2-1806, "Engineering and Design, Earthquake Analysis, Evaluation, and Design for Civil Works Projects," effective June 29, 2024. The reviewer stated the updated ER 1110-2-1806 requires advanced seismic analysis (beyond what has been done) be performed for final design of critical projects within high seismic hazard areas. HDR evaluated the reviewer's comments and the updated ER 1110-2-1806 to assess what portions of these requirements should be applicable to this Project. HDR responded in an email on August 9, 2024, that in its opinion, the Project should be categorized as non-critical from a seismic perspective, and additional seismic analyses are not needed. The Project is awaiting a response from USACE on this topic. The scope and fee included herein do not include additional analyses that may be required should USACE not agree with this opinion.

HDR prepared for and led the RIDM Geotechnical Workshop on July 12, 2024, with the PDT (including representatives from NCFCWCD, USACE, and HDR) and USACE technical reviewers (including DQA, ATR, and SAR). The attendance and participation of geotechnical staff for the workshop is included in Task 19. This task includes geotechnical analyses performed in preparation of the workshop. The goals of the workshop included:

- Deciding if additional subsurface investigations will be required for the portion of the Project south of Lincoln Avenue.
- Completing risk estimates for key risk-driving geotechnical-related Probable Failure Modes (PFMs) to make key decisions, including whether a cutoff wall is needed within the Lake Park area.

Deliverables:

- Updates to the 95% DDR.

Assumptions:

- None.

Additional Geotechnical Analysis for the 95% Dry Bypass Refined Alternative 2 [New Task – Work Ongoing]

Under Amendment No. 2, Task 10.B, scope was included for additional geotechnical analysis to support the design of the selected Alternative 2 for the 65% Dry Bypass Design. The design has since been revised and is referred to as the Refined Alternative 2. These revisions include changes to the configuration of the vault structure and embankment. These changes require revisions to the previously performed analyses, including:

- The addition of a third cross section for analysis to the previous two, taken across the vault and floodwall. The third cross section will be taken across the floodwall at a location near Soscol Avenue to capture the embankment geometry where the now proposed access road will be located.

- Seepage and stability analyses for the various loading conditions for the revised configuration at the two previous cross sections, and seepage and stability analyses of these same loading conditions for the added cross section.
- Performing settlement analyses for the revised configuration at a location where the greatest amount of fill be placed to estimate maximum magnitude of consolidation settlement and immediate settlement that could occur following embankment, structure, and T-wall construction.
- Performing bearing capacity analyses for the revised vault configuration and loads.
- Performing analyses to estimate seismic pseudo-static stability and magnitudes of waterside slope deformations for the vault/floodwall structure for the Operating Basis Earthquake and Maximum Design Earthquake events for the revised configuration. The scope and fee included herein do not include additional analyses that USACE determines would be needed based on their interpretation of the requirements contained in the updated ER 1110-2-1806.

Deliverables:

- Updates to the 95% DDR.

Assumptions:

- None.

Additional CPTS South of Lincoln Avenue [New Task]

In their review of the 65% Project documents, DQA, ATR, and SAR commented that additional subsurface data are required for the portion of the Project south of Lincoln Avenue. In response, HDR will perform up to eight cone penetration tests (CPTs) to depths of approximately 50 feet between approximately STA 0+00 and 17+00. Three of the CPTs will be performed as seismic CPTs to collect shear wave velocity data for seismic evaluations. Second, NCFCWCD provided HDR with information on a former underground storage tank (UST) on the Orciuoli tow yard property beneath the future floodwall alignment that was removed and backfilled. Up to three additional CPTs will be advanced to depths of approximately 25 feet to obtain data on soil backfill properties in the UST area. Thus, up to 11 CPTs will be performed. The CPTs will be performed in two phases due to site access constraints at the Orciuoli tow yard property. The first four CPTs were performed in September 2024. The remaining approximately seven CPTs, which are all on the Orciuoli property, will be performed after site access is obtained (currently anticipated in November 2024). During the November CPTs, soil samples will be collected at approximately three CPT locations for laboratory soil classification testing.

Prior to conducting fieldwork, HDR will prepare a Field Work Plan and Health and Safety Plan, assist NCFCWCD with obtaining the applicable drilling permits, check site access, and check for the presence of underground utilities by contacting Underground Service Alert (USA). A subcontractor who will contract directly with NCFCWCD will perform the CPTs. HDR will coordinate with NCFCWCD and the CPT Contractor to select appropriate exploration equipment to access the proposed exploration locations, to the extent that is reasonable and practical. This scope and fee assume that the subsurface materials encountered are free of contaminants.

HDR will incorporate the CPT logs and data provided by the CPT subcontractor into the subsurface exploration plans, profiles, and analysis cross sections that will be prepared for the 100% DDR (depending on when results are available).

HDR will review and interpret the CPT data and compare the subsurface conditions with those encountered in past explorations along the portion of the Project south of Lincoln Avenue.

Specifically, HDR will perform the following:

- Determine if the subsurface soil conditions are generally consistent with those encountered in past explorations.
- Based on the measured shear wave velocities and soil types encountered, confirm the Site Class used for seismic analysis.
- Using the GeoLogismiki software program, perform liquefaction-related analysis to evaluate potential for liquefaction triggering, liquefaction-induced settlement, and liquefaction-induced lateral spreading.
- Compare the soil shear strength values from the CPTs against those used in the previous analysis, including stability analysis and bearing capacity analysis and perform confirmatory analysis, if needed.
- Perform seepage and stability analysis at up to two additional cross section locations. One of the cross sections will be located at/near STA 14+00 where CPT-04 was performed in September 2024 encountered conditions that differ from those in past explorations in the area. The location of a second cross section location, if needed, will be determined later based on the findings of the CPTs

The CPT logs and data, updated plans, profiles and analysis cross sections, CPT data interpretation, and conclusions of the evaluations and analyses will be presented in the 100% DDR (depending on when results are available).

Deliverables:

- Updates to the 95% or 100% DDR (PDF).

Assumptions:

- The soil encountered is free of contaminants. If contaminants are identified, then additional scope and fee will be required for special handling and disposal.

TASK 11. STRUCTURAL

Modifications to the sheetpile design [Completed]

SAR comment 016 on the 65% design along with the RIDM workshop recommended the analysis for the sheetpile walls to consider formation of a gap on the waterside of the floodwall for designing the floodwall embedment, strength, and stability. The SAR and risk panel recommended utilizing the USACE program CI-Wall for design rather than the previously scoped USACE program CWALSHT. The sheetpile walls were reanalyzed utilizing the CI-Wall program and methodology, with checks being performed of the resulting output. The plans were modified for the resulting embedments and the DDR was updated for the new methodology.

Deliverables:

- Updates to the 95% design documents.
- Updates to the 95% DDR and calculations appendix.

Assumptions:

- None.

Revisions to Floodwalls and Swing Gates with Stoplogs [Completed]

Due to the site triangle evaluation performed following the 65% submittal, HDR revised the floodwall sections at the Ace & Vine and Pet Hospital locations to account for a reduction in wall height, and inclusion of stoplogs placed on top of the wall and stoplog slots placed within the wall. The design was further modified to include the original floodwall heights outside of the site distance triangle at the request of NCFCWCD (maintaining sections requiring stoplogs within the site triangle area). The swing gate design was also adjusted to account for the addition of stoplogs on top of the swing gates. The addition of the stoplogs to the top of the swing gate resulted in modifications to the swing gate structural members, modifications to the hinge assembly, and modifications to the swing gate tie-in wall.

Deliverables:

- Updates to the 95% design documents.

Assumptions:

- None.

Modifications to the Vault Structure [Completed]

Modifications were required to the structural analysis and design of the vault structure at the dry bypass due to changes in the location, grading, and configuration of each vault structure. Based on feedback from NCFCWCD regarding the thickness of the walls, the geometry of the vault was modified subsequent to the design completed as part of Amendment No. 2 to raise the floor elevation and modify the grading around the vault in order to reduce the thickness of the structural components. This large thickness was being governed by the high soil load on the outside of the vault with the vault empty. This was creating a large shear requirement. To alleviate this the redesign included the addition of a second floor into the vault to provide bracing to the walls retaining the high soil load to reduce the shear requirements in the wall to allow for the wall thicknesses to be reduced. This redesign resulted in a reduction of the wall thickness and will be reflected on the 95% plans. The vault also had bearing issues and overturning issues with the reduction of the footprint. A slab extension on the protected side was needed to utilize the weight of the retained soil.

The original inland vault structure geometry was modified from a circular structure (as scoped in Amendment 2) to a rectangular structure. This was a new structure that required a full design, analysis, and plan revisions.

Deliverables:

- Updates to the 95% design documents.

Assumptions:

- None.

TASK 12. 35% DESIGN

No changes or additions to the Scope of Work for this task.

TASK 13. 65% DESIGN

No changes or additions to the Scope of Work for this task.

TASK 14. 95% DESIGN

Traffic Control Plans – Soscol and Lincoln Avenues [New Task]

HDR will develop preliminary traffic control plans for Soscol and Lincoln Avenues to support Project construction. The plans will provide the general layout for temporary construction signage to support pedestrian and traffic movement modifications necessary for the Project work to be completed.

Deliverables:

- Traffic Control Plan Sheets to be included in the 95% submittal.

Assumptions:

- The City of Napa will provide the allowable lane closures, times, and durations. NCFCWCD will coordinates one virtual, two-hour meeting with the City of Napa to discuss the traffic control plans and will include the EOR and transportation lead.
- Caltrans and MUTCD standards will be the basis for the design of the traffic control plans.
- The traffic control plans will be provided to the contractor for bidding purposes only. The contractor will be required to submit a traffic control plan to NCFCWCD and the City of Napa, based on the contractor's schedule and phasing of the work.

Post-Construction Stormwater Control Plans [New Task]

HDR will develop post-construction stormwater control features and details for the Project for inclusion in the construction documents. The stormwater control features and details will follow NCFCWCD requirements and include required best management practices for managing stormwater upon completion of construction.

Deliverables:

- Stormwater Control features and details incorporated into the CG and Landscaping sheets (Nine sheets)

Assumptions:

- NCFCWCD will provide templates for stormwater control plans and applicable requirements.
- Stormwater Control features and details will be incorporated into the 95% submittal (i.e., a separate submittal package is not anticipated).

Lake Park Public Access Ramps Design Modifications [New Task]

To address comment received from the City of Napa and NCFCWCD on September 19, 2024, for the designs of the access ramps, HDR will revise the designs of the cantilever style ramps affixed to the floodwall to have aesthetics that match that of the floodwalls, and the connection to the floodwall will be revised. The redesign will include modifications of the ramps to have a

concrete deck surface instead of the currently designed aluminum grate decking surface, and the support structure visible from the trail will be made more aesthetically pleasing. The method of affixing the access ramps to the floodwall will be revised from epoxy anchors to an embedded ledger board into the floodwall concrete with anchor bolts. Additionally, at the request of NCFCWCD, the southernmost access ramp within the Lake Park area will be flipped in direction to run from south to north instead of north to south to address the negotiations between NCFCWCD and the property owner of 2406 Shoreline Drive.

Deliverables:

- Updated Plans, Details, and Calculations for the redesigned access ramps.

Assumptions:

- The design updates will be included as part of the 95% submittal, and only minimal comments from the City of Napa are anticipated.
- Design updates consist of two additional plan sheets.

Lake Park Rear Yard Fence Schedule [New Task]

At the direction of NCFCWCD, HDR will revise the rear yard fencing along the Lake Park subdivision from the current wood yard privacy fencing to up to four different types of fencing as selected by the homeowners for each parcel. The four fence options will be broken down into two types, each with two heights, as follows:

- 6-foot-tall, wood post, closed fence style (typical residential rear yard fencing).
- 4-foot-tall, wood post, closed fence style (typical residential rear yard fencing).
- 6-foot-tall, wood post, open fence style (wood posts, top and bottom rails, and wire mesh).
- 4-foot-tall, wood post, open fence style (wood posts, top and bottom rails, and wire mesh).

Fence details for each fence type and a fence schedule will be included in the plans. HDR will update the plans to reflect the selected fence for each parcel for the Lake Park Project area.

Deliverables:

- Fence Schedule Plan and Details Two Plan Sheets (PDF).

Assumptions:

- NCFCWCD will provide the fence schedule agreed upon by the homeowners.

Lincoln Avenue Vision Triangle Coordination and Design Modifications [Completed]

Revisions to the floodwall design for both the Ace & Vine and Pet Hospital driveways were required to meet the City of Napa's vision triangle requirements. HDR evaluated different methods of mitigating the floodwall sight obstructions while entering and exiting the Ace & Vine and Pet Hospital parking lots along Lincoln Avenue. It was determined that the sidewalk location will be moved from being adjacent to the landside face of the floodwall to adjacent to the top back of curb to provide greater sight lines between vehicles and pedestrians interacting at each driveway. Additionally, the floodwalls and gates will be redesigned to a height of three feet above design grade, and the remaining two feet of height needed for flood protection will be met by the incorporation of stoplogs affixed to the tops of the swing gates and floodwalls. Stoplogs will only be installed during a flood event when the gates were closed.

Deliverables:

- Updated Plan Sheets (PDF).

Assumptions:

- The driveway accesses to Ace & Vine and the Pet Hospital will be revised to meet the City of Napa's vision triangle requirements outlined on S-25 of their standard plans for an Arterial Street Driveway.
- The City of Napa allows the floodwall to be constructed to three feet high within this vision triangle as it permits for retaining walls.
- The floodwalls and swing gates will be designed to accommodate a two-foot stoplog topper within the vision triangles, including columns that will support the slotting of the stoplogs. The columns will be treated as tree trunks within the vision triangle and will be permitted.

RiverPointe Waterside Trail Regrading and Retaining Wall design revisions [Completed]

Revisions to the waterside trail grading were required based on DQA and ATR comments received from USACE on the waterside trail slopes just north of Lincoln Avenue. HDR revised slope design to a 3(Horizontal):1(Vertical) based on comments that projected the daylight into the river near the bridge. To eliminate this issue, HDR developed a retaining wall tying into the existing northwestern bridge abutment wingwall to intercept the slope. This required revisions to retaining wall design and updated grading.

Deliverables:

- Updated Plan Sheets (PDF).

Assumptions:

- None.

TASK 15. 100% DESIGN

Development of Initial OMRR&R Requirements [New Task]

To address comments received from the SAR Panel on the 65% design, HDR will develop initial requirements for OMRR&R of the Project considering the proposed Project features. The requirements will be developed in coordination with 100% design and a Draft OMRR&R Update Technical Memorandum (TM) will be provided to the SAR Panel for review and input. Comments on the TM will be addressed, then a final OMRR&R Update TM will be submitted.

Deliverables:

- Draft OMRR&R Update TM (PDF).
- Final OMRR&R Update TM (PDF).
- Written responses to comments.

Assumptions:

- The OMRR&R Update TM will be incorporated into the OMRR&R Manual upon completion of construction (refer to Task 24)

TASK 16. PUBLIC MEETINGS

No changes or additions to the Scope of Work for this task.

TASK 17. EVALUATE ALIGNMENT ALTERNATIVES FOR THE ACE & VINE AREA

No changes or additions to the Scope of Work for this task.

TASK 18. EXPANSION OF TOPOGRAPHIC SURVEY FOR ACE & VINE AND LINCOLN BRIDGE ANALYSIS

No changes or additions to the Scope of Work for this task.

TASK 19. RISK ASSESSMENT/RISK INFORMED DESIGN

Dry Bypass RIDM Design Charette [IN PROGRESS]

HDR prepared for and led a design charette for the dry bypass improvements, which was added based on comments received on the 65% design. The virtual meeting was held in February 2024 and included representatives from USACE, NCFCWCD, and HDR. The purpose of the charette was to discuss design alternatives for the dry bypass and select a preferred configuration to advance into 65% design.

Deliverables:

- Updates to the Draft and Final Potential Failure Modes Analysis (PFMA)/Risk Screening Memorandum that was scoped under Amendment No. 2.

Assumptions:

- Four HDR staff (geotechnical, civil, structural, and utility design leads) prepared briefing presentations and attended the charrette.
- HDR provided a facilitator and notetaker.
- The virtual charette was six hours in duration.

Supplemental RIDM Workshop, Geotechnical Issues [New Task – Complete]

HDR prepared for and led a supplemental RIDM Workshop to review sensitivity analyses (seepage, stability, and riverine scour) performed per DQA, ATR, and SAR comments on the 65% design, and evaluated the need for additional subsurface explorations and/or floodwall design modifications before the design could be advanced to 95%. Workshop participants included the PDT (representatives from NCFCWCD, USACE, and HDR) and USACE technical reviewers (DQA, ATR, and SAR). The workshop focused on addressing geotechnical- and scour-related topics associated with the DQA, ATR, and SAR reviews. HDR provided a facilitator and a notetaker for the duration of the workshop.

Deliverables:

- Updates to the Draft and Final PFMA/Risk Screening Memorandum (PDF).

Assumptions:

- Four HDR technical experts (PM, EOR, geotechnical and scour) attended the RIDM Geotechnical Workshop.
- HDR provided a facilitator and notetaker.
- The virtual workshop was six hours in duration.

RIDM Topic-Specific Coordination and Documentation [New Task – In Progress]
Additional topic-specific coordination and documentation will be needed to address the newly published USACE technical guidance for seismic design (USACE ER 1110-2-1806, "Earthquake Analysis, Evaluation, and Design for Civil Works Projects," effective June 29, 2024), and DQA, ATR and SAR review of the 65% design related to the existing 72-inch storm drain. HDR will conduct briefings to discuss the topics with USACE personnel.
Prepare for and co-lead presentation to USACE Risk Informed Design Coordination Group (RIDG) for concurrence on design decisions.

Deliverables:

- Draft and Final Seismic Design Memorandum (PDF)
- Draft and Final Storm Drain Memorandum (PDF)
- One PowerPoint presentation for briefing of both topics (Electronic)
- One PowerPoint presentation for briefing to RIDG (Electronic)

Assumptions:

- Up to four, two-hour-long teleconferences with DQA, ATR, and SAR reviewers.

RIDM Documentation for DDR [New Task – Not Started]
Documentation of the dry bypass design charette, consequences modeling, issue-specific RIDM decisions, and results of the supplemental RIDM workshop will be included in the DDR.
Deliverables:

- Documentation included in the DDR.

Assumptions:

- Revisions resulting from the RIDM workshop have been incorporated into the design documents.

TASK 20. IMOLA AVENUE TO HATT BUIILDING PRE-DESIGN AND SCOUR ANALYSIS

No changes or additions to the Scope of Work for this task.

TASK 21. LANDSCAPING PLANS AND SPECIFICATIONS

No changes or additions to the Scope of Work for this task.

TASK 22. LERRDS (TRACKING ONLY)

No changes or additions to the Scope of Work for this task.

TASK 23. BID SUPPORT AND ENGINEERING SERVICES DURING CONSTRUCTION

Bid Support Services [New Task]
HDR will provide Bidding phase support services, including support to NCFCWCD, in answering bidders' inquires pertaining to the designs and attending the Contractor Pre-Bid Site Walk. HDR will develop up to four addenda to the bid documents based on the bidder inquiries. At the completion of the bid phase, HDR will develop a conformed set of construction documents for the apparent low bidder.

Deliverables:

- Responses to bidder questions (Electronic).
- Up to four Addenda (PDF).
- Conformed Plans and Specifications (PDF).

Assumptions:

- HDR will attend the Pre-Bid Site Walk with two staff members PM and EOR); anticipated duration is 4 hours.
- NCFCWCD will evaluate bidder inquires prior to coordination with HDR for response.
- HDR will respond to 50 bidder questions that NCFCWCD submits to HDR. Each question is assumed to take 1 hour for a Design Team member to respond to.
- HDR will not respond to direct inquiries from bidders.

Respond to Requests for Information and Submittals [New Task]

HDR will review and respond to construction contractor Requests for Information (RFIs), including review of value engineering change proposals and contractor substitutions. HDR will provide technical review of construction contractor submittal packages and suggest a submittal action code to the Contract Management (CM) Team for submittal packages related to civil, geotechnical, and structural.

Deliverables:

- Responses to RFIs (PDF).
- Responses to Submittals (PDF).

Assumptions:

- NCFCWCD and the CM Team will evaluate RFIs and Submittals prior to coordination with HDR for response.
- HDR will respond to 75 RFIs that NCFCWCD submits to HDR. Each RFI is assumed to take 2 hours for a Design Team member to coordinate and respond to.
- HDR will respond to 75 submittals that NCFCWCD provides to HDR. Each Submittal is assumed to take 4 hours for a Design Team member to coordinate and respond to. An additional 2 hours will be required for half of the Submittals for further review and coordination.
- HDR will not respond to direct inquiries from the contractor.

Construction Coordination Meetings [New Task]

The EOR will attend weekly construction coordination meetings with the CM Team, NCFCWCD personnel, construction contractor personnel, and other stakeholders for the duration of construction. The CM Team will develop agendas and notes for meetings. It is anticipated that two virtual meetings will occur per week. The first meeting will include the CM Team, HDR, and NCFCWCD. The second meeting will include the construction contractor in addition to these stakeholders.

Deliverables:

- Notes related to HDR's tasks, if requested (Electronic).

Assumptions:

- Two Construction Coordination meetings will be held weekly and are assumed to be one hour long each.
- The EOR will attend each meeting, with half of the meetings attended by a discipline lead as needed.
- The CM Team will develop agendas and meeting notes.
- The Construction Period is estimated to be two years, and weekly construction coordination meetings will start in January 2026 and continue through December 2027.

Site Meetings [New Task]

HDR will attend 24 eight-hour site meetings (including travel) with the construction contractor and CM Team to provide on-site technical input for construction contractor-related questions that cannot be resolved via teleconferences, emails, or weekly meetings. The site meetings will be held at the construction site and include up to two HDR staff.

Deliverables:

- Meeting notes, if required (Electronic).

Assumptions:

- One site meeting per month for the 24-month construction duration.
- EOR and one technical lead will attend site meetings.

Project Closeout [New Task]

HDR will review draft copies of Project closeout documentation and provide comments to the CM Team. Draft Project closeout documents are anticipated to include final submittals, contractor-marked-up as-built plans and specifications, and punch lists. Additionally, HDR will prepare a memorandum summarizing the construction design support services provided by HDR and include information related to the submittals reviewed; their ultimate disposition; construction-related RFIs; design changes; and other information, as applicable, that impacted the design.

HDR will prepare a set of Record Documents conforming to the marked-up prints, drawings, specifications, and other data furnished to HDR. This set of Record Documents will show the reported locations of the work and significant changes made during the construction process. The Record Documents will be submitted to the CM Team and NCFCWCD for review. HDR will address review comments, then will submit a final set of Record Documents.

Deliverables:

- Review comments on draft Project closeout documentation (Electronic).
- Memorandum summarizing Construction Design Support Services provided by HDR (Electronic).
- Draft Record Documents (PDF).
- Responses to comments.
- Final Record Documents (PDF).
- CAD files of Final Record Plans (AutoCAD 2022).

Assumptions:

- One round of review of closeout documentation.
- CM Team and/or construction contractor will address comments.
- CM Team will prepare a Construction Completion Report. HDR's scope of work under this task is limited to review of this report.
- CM Team and/or contractor will provide redlined as-built drawing showing changes from the 100% Plans.
- CM Team and/or contractor will provide redlined as-built specifications showing changes from the100% Plans.
- Changes to title sheets, standard details, and horizontal control information are not anticipated.

TASK 24. OMRR&R MANUAL UPDATES

Work completed on the Project includes floodwall, penetration, and encroachment improvements within Napa County. As a result, the OMRR&R Manual dated April 2018 must be updated to account for proposed conditions. HDR will work with NCFCWCD to prepare an updated OMRR&R Manual building on the initial OMRR&R actions developed as part of 100% design. The manual will include updated information on encroachments, penetrations, historical information, unique features along the floodwall and within the flood right-of-way, maintenance requirements, and other pertinent improvements and information. Exhibits will be 11 by 17 inches and incorporated into the OMRR&R Manual.

HDR will submit a draft copy of the OMRR&R Manual to NCFCWCD and USACE for review. HDR will address comments will be addressed in writing, then submit a final OMRR&R Manual.

Deliverables:

- Draft Updated OMRR&R Manual and exhibits (PDF).
- Written response to comments (Excel or PDF).
- Final Updated OMRR&R Manual and exhibits (PDF).

Assumptions:

- The OMRR&R Manual will be updated and formatted in accordance with USACE ER 1110-2-401. USACE will provide a Microsoft Word version of the OMRR&R Manual for editing purposes.
- The manual will include OMRR&R requirements for improvements made to the levee as part of the Project.
- The updated OMRR&R Manual will replace the existing OMRR&R Manual.
- HDR will use the existing OMRR&R Manual as a basis.

PROJECT SCHEDULE

HDR, with NCFCWCD and USACE, will develop the schedule for the work outlined in this amendment. Amendment 4 will update the Period of Performance end date to March 6, 2028.

PROJECT COST

A summary of the total estimated fees is provided in Table 1.

TABLE 1

Napa River/Napa Creek Flood Protection Project North of the Bypass Floodwall Design Fee Comparison Table		Amendment No. 1 Design Period 03/01/2023 to 04/01/2024	Amendment No. 2 Design Period 04/01/2023 to 09/26/2025		Amendment No. 3 Design Period 04/01/2023 to 03/28/2028			Total Amendments No. 1, No. 2 and No. 3
NCFCWCD_Napa River Flood Protection 35% Thru 100% Design		Revised Contract Fee Estimate	Amendment Amount	Revised Contract Fee Estimate	Additional Work Completed as of 08/2024	Additional Future Work	Amendment Total Fee Estimate	Budget
Task #	Task Name	2/22/2023	6/18/2024		5/29/2024			
1-1	Project Management	$ 174,327	$ 103,067	$ 277,394	$ -	$ 60,769	$ 60,769	$ 338,163
1-2	Project Coordination Meetings	$ 202,719	$ 308,960	$ 511,679	$ 138,575	$ 92,383	$ 230,958	$ 742,637
1-3	Environmental Documentation and Permitting	$ 592,817	$ 390,379	$ 983,196	$ -	$ 156,600	$ 156,600	$ 1,139,796
1-4	Hazardous and Toxic Materials Phase I Support	$ 2,191	$ -	$ 2,191	$ -	$ -	$ -	$ 2,191
1-5	Economics (Not Anticipated)	$ 82,019	$ (82,019)	$ -	$ -	$ -	$ -	$ -
1-6	Site Reconnaissance	$ 21,189	$ -	$ 21,189	$ -	$ -	$ -	$ 21,189
1-7	Survey, Mapping, and Other Geospatial Data Requirements (RSA+)	$ 221,440	$ -	$ 221,440	$ -	$ -	$ -	$ 221,440
1-8	Hydrology and Hydraulics (RiverFocus)	$ 162,268	$ -	$ 162,268	$ -	$ -	$ -	$ 162,268
1-9	Scour and Erosion Protection	$ 185,368	$ -	$ 185,368	$ 74,092	$ -	$ 74,092	$ 259,460
1-10	Geotechnical	$ 215,127	$ 220,522	$ 435,649	$ 82,691	$ 98,425	$ 181,116	$ 616,765
1-11	Structural	$ 340,149	$ 264,706	$ 604,855	$ 79,167	$ -	$ 79,167	$ 684,022
1-12	35% Design	$ 51,924	$ 17,363	$ 69,287	$ -	$ -	$ -	$ 69,287
1-13	65% Design	$ 666,393	$ 155,065	$ 821,458	$ -	$ -	$ -	$ 821,458
1-14	95% Design	$ 497,124	$ 50,174	$ 547,298	$ 26,301	$ 84,882	$ 111,183	$ 658,481
1-15	100% Design	$ 327,169	$ -	$ 327,169	$ -	$ 14,359	$ 14,359	$ 341,528
1-16	Public Meetings (Not Anticipated)	$ 24,218	$ (24,218)	$ -	$ -	$ -	$ -	$ -
1-17	Evaluate Alignment Alternatives for Ace & Vine Area	$ 26,237	$ -	$ 26,237	$ -	$ -	$ -	$ 26,237
1-18	Expansion of Topographic Survey for Ace & Vine and Lincoln Bridge	$ 23,625	$ -	$ 23,625	$ -	$ -	$ -	$ 23,625
1-19	Risk Assessment/Risk Informed Design	$ 187,054	$ -	$ 187,054	$ 77,780	$ 68,068	$ 145,848	$ 332,902
1-20	Imola to Hatt Building Pre Design and Scour Analysis	$ 128,331	$ -	$ 128,331	$ -	$ -	$ -	$ 128,331
1-21	Landscaping Design	$ 157,812	$ -	$ 157,812	$ -	$ -	$ -	$ 157,812
1-22	LRRDs (Tracking Only)	$ -	$ -	$ -	$ -	$ -	$ -	$ -
1-23	Engineering Services During Construction	$ -	$ -	$ -	$ -	$ 524,553	$ 524,553	$ 524,553
1-24	OMRR&R Manual Updates	$ -	$ -	$ -	$ -	$ 25,246	$ 25,246	$ 25,246
	Subtotals	**$ 4,289,501**	**$ 1,403,999**	**$ 5,693,500**	**$ 478,606**	**$ 1,125,285**	**$ 1,603,891**	**$ 7,297,391**
	Original Budget	**$ 1,182,960**		**$ 1,182,960**				**$ 1,182,960**
	Total	**$ 5,472,461**		**$ 6,876,460**				**$ 8,480,351**

EXHIBIT A-3