Attachment A

Scope of Work

Note this scope of work extends the prior scope of work (Misc. Agreement No. 6494) with task numbers starting at Task 3.4

Task 3. Additional Hydraulic Modeling

Task 3.4 builds on work already in progress as part of Task 3, under which ESA is developing a HEC-RAS 2D hydraulic model (flood model) of existing conditions and a number of bookend scenarios for vegetation thinning and sediment removal to identify the type and magnitude of channel management action that will be needed to reduce flood risk attributable to Nicasio reservoir along Nicasio Creek.

Task 3.4 Identify Sediment and Vegetation Removal Footprint and Follow-Up Maintenance Thresholds

ESA will modify the model from Task 3.3 to refine three flood risk reduction maintenance activities to inform a proposed long-term management plan (Task 5). These will likely be varying lengths and/or depths of sediment and vegetation removal. The activities are anticipated to include an initial large removal of sediment/vegetation clearance to reduce flood risk attributable to Nicasio reservoir and subsequent smaller follow-up sediment removals/vegetation thinning events to maintain the appropriate level of flood protection.

ESA will analyze the modeling results of the various maintenance actions to determine the appropriate condition for flood conveyance and appropriate follow-up maintenance thresholds to achieve that condition. The maintenance thresholds will be incorporated into a proposed long-term management plan. Analysis will be documented in the Flood Analysis Tech Memo.

Assumptions

- ESA will use LiDAR and ESA ground surveys from Task 1 for onsite elevations.
- Each model run will be modeled using consistent boundary conditions and event scenarios (e.g., Q10, Q50, Q100). Alternatives will be conceptual and not fully engineered designs at this stage.
- Model outputs will include flood extents, depths, and velocities for comparison.
- Model extent will include key tributaries and flood-prone areas identified in the hydrology task.
- Manning's n values will be estimated from land cover and refined with field observations if available.
- ESA will simulate existing topographic conditions in the Halleck Creek quarry.

Deliverables

- Preliminary Admin Draft and Final Technical Memorandum on Flood Analysis

Task 4. Coordination and Meetings

Subtask 4.1 Coordination & Project Management

This task involves meetings to coordinate with Marin Water via meetings, emails, and phone calls, and to collaboratively identify potential flood management scenarios to model, as well as monthly invoicing and progress reporting.

Assumptions

- Two ESA staff will participate in virtual meetings twice per month for 6 months, for a total of 12 meetings.

Deliverables

- Progress Reports

Subtask 4.2 Community Outreach Support

ESA will support Marin Water with meetings with the local community by presenting information about the scope of work. For these meetings ESA assumes we will prepare brief PowerPoint presentations that will be reviewed with Marin Water staff beforehand, and that one ESA staff will present in person.

Assumptions

- One ESA staff will participate in six (6) in-person meetings for 6 months requiring a total of 8 hours for preparation and presentation.

Deliverables

- Draft and Final PowerPoint presentations

Task 5. Long-Term Management Plan

ESA will support Marin Water with developing a proposed long-term management plan for Nicasio Creek from Lucas Valley Road to Nicasio Reservoir and a reach from where Nicasio Valley Road crosses Halleck Creek to the confluence of Nicasio Creek (Management Reach) based on the results of the Upper Nicasio Flood Study.

Subtask 5.1 Background Review

ESA will perform a background review of the Nicasio Creek Management Reach that will provide information needed as the foundation for the development of a proposed management plan including location, access, land ownership, topography, geology, geomorphology, hydrology, biological resources, along with other background information relevant to the Plan. The background review will address the logistics and impacts of various actions that would be included in the Plan and biological resource constraints. We'll leverage and utilize available information including what has previously been developed for Marin Water, such as the Upper Nicasio Flood Study and Nicasio Reservoir Habitat Assessment. This task will include development of tables and mapped resources to be documented in Task 5.3 below. It'll also include one (1) reconnaissance site visit to confirm site characteristics and conditions by fluvial geomorphologists, engineers, and biologists to further expand upon and accurately capture the existing conditions.

Subtask 5.2 Hydraulic Analysis Synthesis

ESA will synthesize the results of the hydraulic analysis for use as the basis for determining the appropriate condition to which the Management Reach will be maintained. ESA will evaluate the model results for the various maintenance activities to develop an understanding of target conditions in the Management Reach and create potential maintenance thresholds and graphical tools to guide management.

Subtask 5.3 Creek Management Plan

ESA will utilize information from the Background Review (Subtasks 5.1) and Hydraulic Analysis Synthesis (Subtask 5.2) to develop a proposed Creek Management Plan that will describe maintenance activities in the Management Reach. The plan will summarize existing conditions, including topography, geology, geomorphology, hydrology, biological resources (e.g., identification of vegetation communities

and habitats and potential presence of sensitive species' habitat). The plan will describe and show via planning-level maps the proposed extent and depth of sediment removal as well as proposed areas of vegetation thinning/removal. It will provide planning-level estimates of sediment volumes and removal costs, as well as an estimate of the frequency with which future sediment removal might be required, and the triggers to initiate removal (e.g., repeated survey cross sections showing a set depth of sediment having been deposited).

The plan will also include tables and mapped resources, maintenance targets, thresholds, monitoring, and logistics.

Subtask 5.4 Permitting Strategy

ESA will support Marin Water regulatory agency engagement through development of a permitting strategy for the proposed Upper Nicasio Creek Long-Term Management Plan once approved and adopted.

Regulatory Requirements

ESA will review the proposed Upper Nicasio Creek Long-Term Management Plan and identify the federal, state, and local permits that will be required to implement the identified maintenance activities. This includes evaluating requirements from agencies such as the U.S. Army Corps of Engineers (USACE), San Francisco Bay Regional Water Quality Control Board (Regional Board), and California Department of Fish and Wildlife (CDFW). ESA will summarize the likely permitting pathways and highlight key considerations for project planning in a brief draft Permitting Approach Memo as described in more detail below.

Early Coordination with Agencies and Panorama Environmental

Under Marin Water direction, ESA will initiate early outreach to regulatory agencies. This includes preparing concise project materials, scheduling and attending coordination meetings, including one 1-hour virtual meeting for the purposes of inter-agency coordination and one 30-minute milestone virtual meeting with Marin Water, to discuss regulatory permitting expectations for the proposed maintenance activities.

Development of a Permitting Approach

Based on agency input and project needs, ESA will revise the draft and prepare a final recommended Permitting Approach Memorandum that outlines required permits, anticipated timelines, sequencing, and key submittal requirements. ESA will provide up to 8 additional hours to support Marin Water throughout the planning process by providing technical guidance, coordinating with project partners, and documenting agency feedback.

Deliverables

- Draft and Final Upper Nicasio Creek Long-Term Management Plan
- Draft and Final Permitting Approach Memo
- Meeting Notes from agency and Panorama Environmental coordination meetings

Assumptions:

- Marin Water will conduct a land survey of property boundaries and provide to ESA prior to activities performed under Subtask 5.1

- This scope is limited to developing a permitting strategy and providing early coordination support; preparation of full permit applications is not included and would require additional scope and budget.

Task 6. 2026 Creek Management Actions CEQA Compliance Support and Regulatory Support

Subtask 6.1 Prepare CEQA Exemption Memorandum

ESA believes that the proposed activities will qualify for one or more exemptions from the California Environmental Quality Act (CEQA), specifically Categorical Exemptions under Class 1 (Existing Facilities), Class 4 (Minor Alterations to Land), or Class 33 (Small Habitat Restoration Projects). To that end, ESA senior CEQA staff will attend two 30-minute virtual meetings with Marin Water staff to discuss CEQA options, procedures and public notification requirements. Based on the conclusion of that meeting, ESA will prepare a draft CEQA exemption memorandum with a comprehensive project description, as described under Subtask 6.2 below, that explains how Marin Water's best management practices and other environmental commitments would reduce or avoid environmental impacts, and how the project is beneficial for people, safety and the environment.

At this time, ESA will draft the notice of exemption (NOE) form for Marin Water to review and sign. ESA will file the signed NOE with the State Clearinghouse, and Marin Water will file the NOE with Marin County. Filing the NOE starts the 35-day statute of limitations on any legal challenges.

Subtask 6.2 Project Description, Site Visit and Pre-Application Regulatory Engagement

Concurrent with Subtask 6.1 above, and based on information provided by and discussions with Marin Water, ESA will prepare a project description that includes a summary of proposed maintenance activities prioritized for 2026 in Nicasio Creek, purpose and need for the activity, methods and list of equipment, the location of staging/material storage and access areas, work area estimates (acres and volume of materials to be removed from the Nicasio Creek), vegetation removal, sediment removal (if any), as well as figures showing boundaries for the limit of maintenance and associated staging areas for the project site. The project description will also include Marin Water's best management practices (e.g., practices to preclude take of any listed species, measures to avoid or minimize impacts on water quality) that will be implemented during implementation of the project. Figures illustrating the extent of proposed maintenance activities and photos documented during the site visit (discussed in the following paragraph) will be attached to the project description consistent with the permitting requests.

One (1) day reconnaissance level site visit would be conducted by biologists to document the existing site conditions, including vegetation communities and habitat potentially supporting sensitive plant and wildlife species. As part of this effort, ESA will also characterize and map aquatic features within the project area, adding to relevant aquatic features data previously collected by ESA. The top of bank (TOB) and ordinary high-water mark (OHWM) will be documented. Any wetlands within the project area will be delineated in accordance with the USACE 1987 Wetlands Delineation Manual and Arid West Supplement. Potentially jurisdictional aquatic features encountered within the survey area will be documented through photographs, their size estimated in the field, and their locations mapped using a global positioning system (GPS).

ESA will work with Marin Water to initiate early coordination with regulatory agencies to present the proposed maintenance activities, obtain preliminary feedback on design and potential compensatory mitigation requirements, and seek their "approval in concept". ESA will prepare a concise slide deck (anticipated to be fewer than 10 slides) summarizing the proposed maintenance, purpose, the environmental setting, potential compensatory mitigation options, and the proposed regulatory permitting approach to be shared during a one-hour virtual inter-agency meeting. Agency input received during this meeting will help confirm and refine the permitting strategy. Following this meeting.

Subtask 6.3 Technical Reports

Biological Resource Technical Memorandum

Permit applications will require an evaluation of potential effects on special-status species, including federally and state listed, or proposed listed, species, including California freshwater shrimp, California red-legged frog, and western pond turtle. ESA will utilize existing information available from the Nicasio Spillway Modification Project to complete brief memorandum detailing the special status species with potential to occur in the Project area and summary of existing physical and biological conditions including description of the vegetation types.

Aquatic Resources Technical Memorandum

Results of the delineation of aquatic resources documented during site visit performed under Subtask 6.2, in addition to results of aquatic delineation data previously collected by ESA for Marin Water for the Nicasio Spillway Modification Project, would be included in an Aquatic Resources Technical Memorandum. This memo would characterize aquatic resources within the proposed 2026 maintenance area and include mapped aquatic resources figure and summary tables. This scope assumes the aquatic resource delineation will not require USACE verification.

Cultural Resources Report

In support of compliance with Section 106 of the National Historic Preservation Act (Section 106), as part of the USACE CWA Section 404 permit application, ESA will prepare a Section 106-compliant cultural resources technical memorandum. The cultural resources technical memorandum will include the following: methods and findings of the background research; results of the California Historical Resources Information System records search; maps; field survey results; finding of effect; and recommendations. The cultural resources technical report will be prepared according to the documentation requirements of the California Office of Historic Preservation, CEQA, and Section 106.

Subtask 6.4 CDFW Lake and Streambed Alteration Agreement

A CDFW Lake and Streambed Alteration notification (LSA) pursuant to Section 1602 of the California Fish and Game Code (CFGC) is required for projects that result in temporary or permanent alterations to rivers, streams, and lakes in the state and associated riparian or wetland habitats. ESA will prepare a Section 1602 Lake or Streambed Alteration notification package for a standard (5-year) agreement for submittal to CDFW, including all necessary supporting documents and exhibits (the Biological Resource Technical Memorandum and the Aquatic Resource Delineation Memorandum). The notification will

quantify and describe maintenance techniques, estimated impacts on CDFW-regulated areas and associated fish and wildlife resources. The notification will also likely need to provide details regarding proposed compensatory mitigation approach and any associated required monitoring and reporting, as scoped under Subtask 6.7 below. The notification package will consist of information formatted to facilitate ESA's upload to CDFW's online application portal (EPIMS).

Subtask 6.5 Regional Board Clean Water Act Section 401 Water Quality Certification

ESA will prepare Regional Board 401 Water Quality Certification application materials, to include the following: a pre-filing meeting request, a cover letter, the appropriate application form, a supplemental information document with additional project information in response to the application form, including impacts on waters of the state, a compensatory mitigation plan, and supporting maps/graphics.

Subtask 6.6 USACE Nationwide Permit

Assuming a CWA Section 404 regulated activity is proposed, it is anticipated the project would be eligible for a Nationwide Permit (NWP) 3 (Maintenance). ESA will verify the Nationwide Permit 3 during an interagency pre-application meeting scoped under Subtask 6.2 above. ESA will prepare NWP Pre-Construction Notification (PCN) application materials for submittal via the USACE new only system, the Regulatory Request System (RRS). The PCN materials will include project information, purpose and need for the activity, the potential impacts on waters of the U.S, and a summary of potential impacts on species protected under the Federal Endangered Species Act, and the NHPA Section 106 support information. The RRS submittal will also include supporting maps and/or graphics.

Subtask 6.7 Compensatory Mitigation and Monitoring Plan

ESA anticipates compensatory mitigation would be required to offset temporary and permanent impacts on aquatic resources, although this will ultimately depend on the proposed maintenance activities and regulatory triggers. Accordingly, ESA will coordinate with Marin Water, the Regional Board, CDFW, and USACE to develop a Compensatory Mitigation and Monitoring Plan (CMMP) associated with the project for resource agency authorization. The CMMP will include a brief description of the purpose and need, location, and performance criteria to offset permanent impacts, including photographs, tables, and maps. ESA assumes the mitigation methods (e.g., invasive vegetation treatment or revegetation site) and mitigation ratio from similar Marin Water projects will inform agency mitigation requirements. This scope assumes up to three 30-minute virtual coordination meetings with regulatory agencies, in addition to up to three 30-minute virtual strategy meetings with Marin Water. ESA has included a one-day site visit to review and document potential locations where the CMMP could be implemented. The site visit would be attended by an ESA biologist, along with at least one representative of Marin Water.

Subtask 6.8 Post-Notification Coordination

Given the uncertain nature of the agency comments, ESA has included up to 52 hours as an estimate of the level of effort that is potentially required to address agency requests for additional information. This may include additional site visits by ESA engineers, geomorphologists to identify specific locations for vegetation or sediment removal. This is intended to allow the permitting application process to begin promptly rather than waiting to compile all information before initiating submittals, thereby helping to

expedite the overall schedule. ESA will coordinate with Marin Water and the regulatory agencies to address their requests for information. ESA will participate in up to one virtual post-application meeting.

Assumptions

- Project will be eligible for one or more CEQA categorical exemptions.
- The District will file the NOE with Marin County and pay the associated filing fee ($50).
- The site visit performed under Subtask 6.2 will inform the project description, technical reports (Subtask 6.3), and permit applications (Subtask 6.4 to Subtask 6.6) and include:
    - One site visit day for two biologists to assess presence and limits of sensitive habitats and jurisdictional features regulated by resource agencies.
    - No protocol-level biological resources surveys will be necessary.
    - No site visit will be necessary to prepare the cultural resources technical report.
- One 1-hour inter-agency meeting and up to four 30-minute targeted Marin Water meetings.
- Pre-application engagement with the regulatory agencies, including post-meeting follow-up.
- Pre-application meeting agendas, presentations, and meeting notes.
- No more than 7,000 CY of sediment removal is proposed.
- Proposed vegetation trimming would be performed by hand, selective, primarily occurring on those branches with a diameter of 4 inches or less. All vegetative maintenance activities will be conducted using hand tools and would avoid the use of heavy machinery which would reduce potential impacts to aquatic resources.
- No placement of fill is proposed.
- All vegetation will either be allowed to mobilize downstream (anticipated to enter the reservoir) or would be hauled offsite.
- ESA will adopt existing information, and description of proposed maintenance activities from previously secured permits for Marin Water maintenance activities in Upper Nicasio Creek.
- ESA will utilize relevant aquatic resources data previously collected for the Nicasio Spillway Modification Project to inform the Aquatic Resources Technical Memorandum and the Biological Resource Technical Memorandum.
- USACE will determine the project has “No Potential to Affect” historic properties and will handle all coordination with the California State Historic Preservation Officer, as needed.
- USACE will complete all tribal outreach and consultation as appropriate.
- ESA assumes Marin Water will pay notification fees.
- The Marin Water will pay application and project fees.
- Project would not require an alternatives analysis.
- If the USACE determines an USACE Individual Permit is required, additional services and budget may be required.
- ESA assumes standard sediment removal methods under existing conditions intended to improve creek hydraulic capacity and reduce flooding.
- The USACE will not require consultation with USFWS under the Federal Endangered Species Act.
- A 404(b)(1) alternative analysis will not be required.
- Marin Water will provide multiple options for potential mitigation site locations and objectives.
- Marin Water will implement the CMMP.
- Compensatory mitigation for project impacts will be required by resource agencies.
- Additional post-permit application submittal responses may require additional scope and budget.

- Additional information required to complete the application packages not available to ESA will be provided by Marin Water.
- No significant changes to the project once the permit applications begin.

Deliverables

- Draft and Final CatEx memorandum
- Draft and Final NOE
- Administrative record files (pdf)
- Draft and Final Project Description (electronic copies – MS Word and PDF including graphics and appendices)
- Draft and Final Biological Resources Technical Memorandum (electronic copies – MS Word and PDF including graphics and appendices)
- Draft and Final Aquatic Resources Technical Memorandum (electronic copies – PDF including graphics and appendices)
- Draft and Final Cultural Resources Technical Memorandum (electronic copies – PDF including graphics and appendices)
- Electronic version of draft (Word) permit application packages for a CDFW LSA notification
- The final permit application package for CDFW to be entered into the EPIMS
- Electronic version of draft (PDF and Word) and final (PDF) permit application packages for a Regional Board 401 Certification.
- Electronic version of draft (PDF and Word) and final (PDF) PCN application packages for a USACE NWP to be uploaded via RRRS.
- Electronic version of draft (PDF and Word) and final (PDF) Compensatory Mitigation and Monitoring Plan
- Post-application regulatory support, including responding to regulatory agency comments via letter, email, or memorandum, after applications are submitted.
- Meeting notes

Task 7. 10% Contingency

Task 7 provides a contingency based on 10% of the labor hours for Tasks 3 through 6, to cover additional out of scope work if needed and approved by Marin Water.

Schedule

We anticipate that the performance period for this scope of work is six months.

Budget

ESA's budget for the scope of work is $354,659 as shown in Appendix 1

Appendix 1. Cost Proposal

Nicasio Creek Channel Maintenance Plan		TOTAL ESA LABOR COST & FEES						Total ESA Labor Cost
Task #	Task Name/Description	ESA Total Hours	ESA Labor Subtotal ($)	Rate Escalation	Contingency	Technology & Data Management Fee	Total Labor Fee	
3.4	Refined Hydraulic Modeling	76.00	$ 19,236	$ -	$ -	$ 577	$ 577	$ 19,813
3	**Task 3**	**76.00**	**$ 19,236**	**$ -**	**$ -**	**$ 577**	**$ 577**	**$ 19,813**
4.1	Coordination & Project Management	24.00	$ 7,548	$ -	$ -	$ 226	$ 226	$ 7,774
4.2	Community Outreach	74.00	$ 24,244	$ -	$ -	$ 727	$ 727	$ 24,971
4	**Task 4**	**98.00**	**$ 31,792**	**$ -**	**$ -**	**$ 954**	**$ 954**	**$ 32,746**
5.1	Background Review	99.00	$ 26,190	$ -	$ -	$ 786	$ 786	$ 26,976
5.2	Hydraulic Analysis Synthesis	88.00	$ 23,400	$ -	$ -	$ 702	$ 702	$ 24,102
5.3	Management Plan	180.00	$ 47,110	$ -	$ -	$ 1,413	$ 1,413	$ 48,523
5.4	Permitting Strategy	84.00	$ 21,292	$ -	$ -	$ 639	$ 639	$ 21,931
5	**Task 5 Long-Term Management Plan**	**451.00**	**$ 117,992**	**$ -**	**$ -**	**$ 3,540**	**$ 3,540**	**$ 121,532**
6.1	Prepare CEQA Exemption Memorandum	44.00	$ 12,382	$ -	$ -	$ 371	$ 371	$ 12,753
6.2	Project Description and Pre-App Regulatory Engagement	80.00	$ 19,610	$ -	$ -	$ 588	$ 588	$ 20,198
6.3.1	Biological Resource Technical Memorandum	44.00	$ 10,277	$ -	$ -	$ 308	$ 308	$ 10,585
6.3.2	Aquatic Resources Delineation Memo	52.00	$ 11,753	$ -	$ -	$ 353	$ 353	$ 12,106
6.3.3	Cultural Resources Report	43.00	$ 9,388	$ -	$ -	$ 282	$ 282	$ 9,670
6.4	CDFW Sreambed Alteration Agreement	75.00	$ 17,363	$ -	$ -	$ 521	$ 521	$ 17,884
6.5	Regional Board 401 Certification	75.00	$ 17,275	$ -	$ -	$ 518	$ 518	$ 17,793
6.6	USACE Nationw ide Permit	63.00	$ 14,731	$ -	$ -	$ 442	$ 442	$ 15,173
6.7	Compensatory Mitigation and Monitoring Plan	51.00	$ 12,111	$ -	$ -	$ 363	$ 363	$ 12,474
6.8	Post-Notification Coordination	58.00	$ 16,134	$ -	$ -	$ 484	$ 484	$ 16,618
6	**Task 6 2026 Channel Management Permits**	**585.00**	**$ 141,024**	**$ -**	**$ -**	**$ 4,231**	**$ 4,231**	**$ 145,255**
7.1	Contingency	121.00	$ 31,004	$ -	$ -	$ 930	$ 930	$ 31,935
7	**Task 7. 10% Contingency**	**121.00**	**$ 31,004**	**$ -**	**$ -**	**$ 930**	**$ 930**	**$ 31,935**
	Total Hours	**1,331.00**	**$ 341,048**	**$ -**	**$ -**	**$ 10,231**	**$ 10,231**	**$ 351,280**
	Total ($) Amount							

PROJECT COST ESTIMATE SUMMARY TABLE	
ESA Labor	$341,048
Annual Rate Escalation Allowance	
Contingency	
Technology and Data Management Fee	$10,231
ESA Labor Amount	**$351,280**
ESA Non-Labor Expenses	
Reimbursable Expenses (see Attachment A for detail)	$2,179
ESA Equipment Usage (see Attachment A for detail)	$1,200
Subtotal ESA Non-Labor Expenses	**$3,379**
Subconsultant Costs	
PROJECT TOTAL	**$354,659**