

**NORTH BAY WATER REUSE AUTHORITY
TECHNICAL ADVISORY COMMITTEE**

Thursday, April 14, 2022

Agenda

12:30 PM

Zoom Meeting: <https://us02web.zoom.us/j/84904951313>

	1.		Call to Order and Self Introductions
	2.	Action	Approval of Agenda
	3.		Public Comments
Pages 3 - 4	4.	Action	TAC Meeting Minutes of April 7, 2022
Pages 5 - 25	5.	Action	FY2022/23 Budget and Resilience Arena Projects
	6.	Information	Next Meeting, May 5, 2022
	7.		Adjournment

**North Bay Water Reuse Authority
Technical Advisory Committee
Zoom Meeting Minutes
April 7, 2022**

Draft

Approved _____

1. Call to Order and Self Introductions

Chair Healy called the Technical Advisory Committee (TAC) meeting to order at 2:05 p.m. on Thursday, April 7, 2022. The meeting was a Zoom meeting only and attendees participated via the following link: <https://us02web.zoom.us/j/87698404530>.

Committee Members Present

Tim Healy, Chair	Napa Sanitation District
Pam Jeane, Vice Chair	Sonoma Valley County Sanitation District
Erik Brown	Novato Sanitary District
Grant Davis	Sonoma Water
Chris DeGabriele	Las Gallinas Valley Sanitary District
Akin Fayehun	City of Petaluma
Drew McIntyre	North Marin Water District
Dominic Patrick	City of American Canyon
Paul Sellier	Marin Municipal Water District

Others Present

Member Agencies

Kevin Booker	Sonoma Water
Akin Fayehun	City of Petaluma
Dale McDonald	Las Gallinas Valley Sanitary District
Jake Spaulding	Sonoma Water
Tony Williams	North Marin Water District

Consultant Team

Chuck Weir, Program Manager	Weir Technical Services
Rene Guillen	Brown & Caldwell
Mark Millan	Data Instincts
Jim O'Toole	ESA
Mike Savage	Brown and Caldwell

2. Approval of the Agenda

The Agenda was approved with no changes.

3. Public Comments

There were no public comments.

4. TAC Meeting Minutes of March 3, 2022

On a motion by Drew McIntyre, seconded by Chris DeGabriele, the March 3, 2022 minutes were unanimously approved.

5. Meeting Between NBWRA and NBWA to Avoid Duplicative Efforts

Due to budget shortages there has been no action on this item. NBWA's virtual conference will be held April 8, 2022.

6. Status of Phase 2 Funding Application

Rene noted that the application was submitted on March 15, 2022 and the request was for \$6.9 million for three Petaluma projects. The support resolutions from Petaluma and the Water Agency are due to USBR by May 10, 2022

7. FY2022/23 Budget and Resilience Arena Projects

The Program Manager gave a brief summary of the projects, scopes of work, consultant costs, estimated Sonoma Water costs, joint use costs, and likely cost sharing. He apologized for the late delivery of the agenda packet due to not receiving the scopes and costs until this morning. Rene Guillen discussed the scope for the recycled water project. Drew McIntyre stated that he had no time to review the packet and could not make any decisions today. Other TAC members and Chair Healy concurred. McIntyre suggested another meeting next week with just the TAC and the Program Manager in an effort to reduce consultant costs for meeting attendance.

Chris DeGabriele asked why the cost for the recycled water project has increased from \$205,000 to \$319,000. Rene Guillen stated that much of the increase is in the program management task which includes funds to respond to opportunities that may arise during the year.

Jake Spaulding stated that the estimated costs for Sonoma Water were close to their estimates, but allocated differently.

There was discussion on the Drought Contingency Plan and Sea Level Rise scopes and costs. TAC members requested more detail on the costs associated with the scopes. Rene Guillen stated that those tables could be included in the scope documents for the next meeting. There was additional discussion regarding which agencies would participate in the various projects.

Following discussion the next meeting for the TAC and Program Manager will be at 12:30 p.m. on Thursday, April 14, 2022 via Zoom. The Program Manager stated that he would be out of the country from April 12 – May 8, but should be able to make that work. He will work with Mark Millan to ensure that there are no issues with hosting a Zoom meeting from France.

10. Next Meeting

The next meeting will be via Zoom on Thursday, April 14, 2022 at 12:30 p.m.

11. Adjournment

There being no further business Chair Healy adjourned the meeting at 3:15 p.m.

ITEM NO. 5 FY2022/23 Budget and Resilience Arena Projects

Action Requested

It is recommended that the TAC review and approve the scopes and costs for three resilience arena projects for the FY2022/23 Budget

Summary

Proposed Budget for FY 22/23 by Resiliency Arena

Sonoma Water has provided information for their costs for FY2022/23 as follows:

Resiliency Arena 1 – Recycled Water \$4,000

Resiliency Arena 3 – Drought Contingency Planning \$4,000

Resiliency Arena 4 – Sea Level Rise Adaptation \$4,000

The total for Resilience Arenas 1, 3, and 4 will total \$12,000 no matter what as it is tied to cost of RFP/new agreement for the consultant. If one or more resilience arena drops off the list the funds will be reallocated evenly between the remaining arenas.

Joint Use - \$65,500 This covers new agreement, board meetings, TAC meetings, financial tracking, invoicing, and miscellaneous administration.

Total Cost - \$77,500

Resiliency Arena 1 – Recycled Water

- \$85K to update the EIR/EIS to align with the updated FS (Task 3).
- \$15K to update the FCD Report to align with the updated FS (Task 4).
- \$25K to support the development of two additional grant applications (Task 5).
- \$189K for continued PM support and support as it pertains to any additional changes needed to the FS or other tasks the TAC might need technical support on (Task 7).
- **Total: \$319K**

Costs by Agency (note that this assumes the same cost allocation model we have been using for Phase 2):

Total Budget	LGUSD	Napa SD	Novato SD	SVCSD	SCWA	NMWD	Napa County	Petaluma	MMWD	American Canyon
B&C \$318,946	\$18,892	\$29,577	\$31,089	\$27,512	\$32,937	\$18,892	\$18,892	\$68,610	\$33,349	\$39,197
Sonoma Water - \$4,000	\$237	\$371	\$390	\$345	\$413	\$237	\$237	\$860	\$418	\$492
Total Budget \$322,946	\$19,129	\$29,948	\$31,479	\$27,857	\$33,350	\$19,129	\$19,129	\$69,470	\$33,767	\$39,689

The draft scope for this project is included as **Attachment No. 5.a**, DRAFT Scope of Work – Continued Recycled Water Support. The draft budget for this project is included in the attachment.

All of the above costs would be subject to a final truing up once all Phase 2 projects have been completed and grant funding has been closed out.

Resiliency Arena 3 – Drought Contingency Planning

- Scope would entail review Sonoma Water’s Regional Water Supply Resiliency Study (Study) to determine how it compares to the criteria of a “Drought Contingency Plan” (DCP) and to identify actions to be taken to meet the DCP criteria.
- **Total Budget: \$52K**

Assuming this proposed \$52K is spread among all of the Sonoma and Marin agencies equally, the cost by agency is as follows:

	LGVSD	Novato SD	SVCSD	SCWA	NMWD	Petaluma	MMWD
B&C \$52,034	\$7,433	\$7,433	\$7,433	\$7,433	\$7,433	\$7,433	\$7,433
Sonoma Water \$4,000	\$571	\$571	\$571	\$571	\$571	\$571	\$571
Total Budget \$56,034	\$8,004	\$8,004	\$8,004	\$8,004	\$8,004	\$8,004	\$8,004

The draft scope for this project is included as **Attachment No. 5.b**, DRAFT Scope of Work – Drought Contingency Planning: Review and Assessment of the Regional Water Supply Resiliency Study. The draft budget is included in the attachment.

Resiliency Arena 4 – Sea Level Rise Adaptation

Option 4A – Funding Acquisition

- Scope to develop application (FEMA BRIC, Reclamation Watershed Planning Grant, or other) for funding opportunity intended to help support the development of a Las Gallinas Valley Sanitary District and Marin County Adaptation Plan.
- **Total Budget: \$54K (\$5,400 agency)**

The cost distribution would depend on the number of agencies that participate in this task.

Option 4B; Sub Regional Adaptation Plan for Marin County: \$115,000 (\$28,750/4 agencies)

Agency Participation: Sonoma Water (Administrator); Las Gallinas, Marin Co. FCD, Novato San, NMWD

Potential New Agencies: City of Novato, City of San Rafael

Objective: Establish Adaptation Plan Projects for Funding

Task 1. Review and Synthesis of Vulnerability Work to Date

Task 2. Agency and Stakeholder Coordination/Outreach Program

- Workshop 1, Workshop 2
- Task 3. Shoreline Adaptation Strategy Development
- Task 4. Draft Adaptation Plan
 - Project Prioritization
- Task 4. Funding Roadmap
- Task 5. Webpage Development

Please refer to

Option 4C: Regional Adaptation Plan for NBWRA: Marin, Sonoma, Napa: \$252,000 (\$25,200/10 agencies)

- Agency Participation: Sonoma Water (Administrator); All Agencies
- Potential New Agencies: City of Novato, City of San Rafael, City of Vallejo,
- Objective: Establish Adaptation Plan Projects for Funding
- Task 1. Review and Synthesis of Vulnerability Work to Date
- Task 2. Agency and Stakeholder Coordination/Outreach Program
 - Workshop 1, Workshop 2, Workshop 3, Workshop 4
- Task 3. Integration of SR 37 Adaptation Strategies (from others)
- Task 4. Shoreline Adaptation Strategy Development
- Task 5. Draft Adaptation Plan
 - Project Prioritization
- Task 6. Funding Roadmap
- Task 7. Webpage Development

The cost distribution would depend on the number of agencies that participate in each task option.

Please refer to **Attachment No. 5.c**, DRAFT Scope of Work – Sea Level Rise Adaptation: BRIC Grant Application. This document includes detailed scopes for all three options and cost summaries. Including \$4,000 for Sonoma Water administration would result in the following totals for each option:

- Option A**, \$58,000
- Option B**, \$119,000
- Option C**, \$256,000

Joint Use Costs

Joint Use costs would include Program Management for Weir Technical Services. The cost for program management is largely determined by the number of projects and meetings required for the Board and TAC. An estimate of \$40,000 for those services would be shared equally by all ten member agencies, or \$4,000 per agency. Joint Use costs would also include \$65,500 for Sonoma

Water, or \$6,550 for each agency. The total joint use costs would be \$105,500, or \$10,550 for each agency.

Total FY2022/23 Budget Costs by Agency

The following table estimates the total costs for each agency for FY2022/23.

Total Budget	LGVSD	Napa SD	Novato SD	SVCSD	SCWA	NMWD	Napa County	Petaluma	MMWD	American Canyon
Recycled Water \$322,946	\$19,129	\$29,948	\$31,479	\$27,857	\$33,350	\$19,129	\$19,129	\$69,470	\$33,767	\$39,689
Drought Contingency Plan \$56,034	\$8,004		\$8,004	\$8,004	\$8,004	\$8,004		\$8,004	\$8,004	
Sea Level Rise \$58,000 to \$256,000	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Joint Use \$105,500	\$10,550	\$10,550	\$10,550	\$10,550	\$10,550	\$10,550	\$10,550	\$10,550	\$10,550	\$10,550
Total \$484,480 plus Sea Level Rise	\$37,683	\$40,498	\$50,033	\$46,411	\$51,904	\$37,683	\$29,679	\$88,024	\$52,321	\$50,239

Please note that the above totals are subject to change depending on the number of agencies participating and the sea level rise option chosen.

Recommendation

It is recommended that the TAC review and consider and approve for Board approval at the April 25, 2022 Board Meeting each of the Resilience Arena projects described in this report and determine which Sea Level Rise project is preferred and which agencies will participate. A final budget can be determined once that is determined.

DRAFT Scope of Work – Continued Recycled Water Support

The Brown and Caldwell team (Consultant Team) will continue to provide recycled water support services to the North Bay Water Reuse Authority (NBWRA) member agencies as described in the following scope.

Task 1 – Management

Brown and Caldwell (BC) will provide project management services including oversight of project staff, budget, and schedule; project administration and accounting; and monthly progress reports with invoices.

1.1 Workshops/ Authority Board of Directors/ Technical Advisory Committee Meetings

The Consultant Team will attend an additional twelve (12) Technical Advisory Committee (TAC) meetings and six (6) NBWRA Board Meetings. All meetings are assumed to be held virtually using web-based communications without personal attendance. The BC team will help prepare meeting materials and present as requested up to the limit of the budget.

1.3 Public Involvement

Adding budget for continued support as described in current Consultant agreement. The Consultant team will provide services up to the limit of the budget.

1.4 Administration

BC will provide monthly reports along with each monthly invoice, including budget status and a summary of tasks performed.

Task 1 Deliverables

- Monthly progress reports and invoices.

Task 1 Assumptions

- Up to an additional 12 months of PM services and monthly progress reports.
- TAC meetings are assumed to be one hour in duration.
- NBWRA meetings are assumed to be two hours in duration.

Task 2 – Title XVI Feasibility Study

No changes to the scope or additional budget needed.

Task 3 – Environmental Evaluation

The Consultant team will work closely with the NBWRA member agencies and the U.S. Bureau of Reclamation (Reclamation) to complete the National Environmental Policy Act (NEPA) process. The

Consultant team will leverage the existing State certified environmental document to complete the process.

Task 3 Deliverables

- One admin draft (for NBWRA member agencies review/comment), one draft (for Reclamation review/comment), and one final version of the NEPA certified environmental document.

Task 3 Assumptions

- Consultant team will conduct quality reviews on deliverables prior to submittal to NBWRA member agencies. Consultant team will submit deliverables to NBWRA member agencies initially as a draft for review, then as final to address NBWRA member agencies review comments.
- NBWRA member agencies will provide a single set of collated comments using a comment log. Consultant team will document follow-up actions or rationale (if not revising a work product to incorporate one or more NBWRA member agencies comment[s]) in the comment log.
- No additional BC budget was added to this task as it is assumed that the remaining budget in the existing contract will be used to support completion of this task. If task is not added as an amendment to existing contract, additional budget will be required.

Task 4 – Financial Capabilities Determination

The Consultant team will work closely with the NBWRA member agencies to update the existing draft Financial Capability Determination (FCD) Report to align with recent updates that were made to the Phase 2 Title XVI Feasibility Study Report, including the following services, provided to the limit of the budget:

1. Update the presentation of financial statement data to enable Reclamation reviewers to compare project investment costs to existing capital assets, project operation costs to current operation costs, and annual project revenue requirements to existing revenues.
2. Update project cost allocation to reflect the current cost estimate, which defines the federal and non-federal cost shares for the Phase 2 Program.
3. Collect information on the non-federal financing plan and status from NBWRA member agencies through emails, phone conference calls, and meetings. The plans should include details and documentation both for funding of the non-federal share of construction (e.g., loans, grants, bonds) and for required annual debt service and annual project operations costs (e.g., user fees and tax assessments).
4. Submit an updated Draft FCD Report to the NBWRA member agencies for review and hold follow-up meetings, as requested, to discuss comments. Revise to address NBWRA member agencies review comments, then submit the FCD Report to Reclamation. Respond to Reclamation's questions and comments. Revise to address Reclamation review comments, then submit the Final FCD Report to Reclamation.

Task 4 Deliverables

- One admin draft (for NBWRA member agencies review/comment), one draft (for Reclamation review/comment), and one final version of the Financial Capability Determination Report.

Task 4 Assumptions

- Consultant team will conduct quality reviews on deliverables prior to submittal to NBWRA member agencies. Consultant team will submit deliverables to NBWRA member agencies initially as a draft for review, then as final to address NBWRA member agencies review comments.
- NBWRA member agencies will provide a single set of collated comments using a comment log. Consultant team will document follow-up actions or rationale (if not revising a work product to incorporate one or more NBWRA member agencies comment[s]) in the comment log.
- NBWRA member agencies will provide financial statements to be utilized for the financial capability determination.
- A maximum of 8 hours has been budgeted for responding to comments and questions on the submitted FCD Report.

Task 5 – Phase 2 Funding Sources Identification, and Grant Applications and Administration

The Consultant team will support NBWRA member agencies preparation of one (1) grant application. The grant application will include a detailed narrative to address evaluation criteria cited for the respective funding opportunity. The Consultant team will prepare one draft of the grant application that will be submitted to the NBWRA member agencies seeking funding for review and comment and finalize to incorporate comments. Once the grant application is submitted, the Consultant team will respond to questions and comments that may arise as requested by the NBWRA member agencies. The Consultant team will provide services up to the limit of the budget.

Task 5 Deliverables:

- Draft and final grant applications for one (1) federal funding opportunity.

Task 5 Assumptions:

- Grant applications developed under this task will relate to funding opportunities for project implementation (design and construction).
- BC support will require notice of at least 6 weeks before a grant application deadline for coordinating a staffing plan and allowing NBWRA member agencies review time. NBWRA member agencies review period for the draft grant applications is up to 5 business days depending on the required timeline for the grant opportunity.
- NBWRA member agencies will provide required forms and information required from the grant applicant, such as: required federal/state forms; Board resolution; project budget with in-kind staff costs (including, for example, staff names/titles, estimated number of project hours, and current hourly salary); NBWRA member agencies internal rates for paid absence, fringe benefits, and overhead); federal indirect cost rates; and a letter of local partner funding commitment (i.e., funding amount, date funding will be available, time constraints on funding availability, and other contingencies).
- Consultant team will conduct quality reviews on deliverables prior to submittal to NBWRA member agencies. Consultant team will submit deliverables to NBWRA member agencies initially as a draft for review, then as final to address review comments.
- NBWRA member agencies will provide a single set of collated comments using a comment log. Consultant team will document follow-up actions or rationale (if not revising a work product to incorporate one or more NBWRA member agencies comment[s]) in the comment log.

- A maximum of 8 hours has been budgeted for responding to comments and questions on the submitted grant application.

Task 6 – Authority Phase 1 Services

No changes to the scope or additional budget needed.

Task 7 – Additional Services

The NBWRA member agencies may require technical input to support TAC decision processes and to support TAC presentations to the NBWRA Board. Topics can include future direction of NBWRA, future task and scoping to support TAC discussions, cost implications of future actions, organizational issues, other technical questions that arise to support the TAC, and other issues to be defined by the TAC as needed. Requests will be submitted in writing by Sonoma Water. The Consultant team will provide an effort estimate and identification of scope and anticipated deliverables for each work request for agreement with the TAC.

Task 7 Assumptions

- Services will be provided up to the limit of the task budget.
- Consultant team will conduct quality reviews on deliverables prior to submittal to the NBWRA member agencies. The Consultant team will submit deliverables to NBWRA member agencies initially as a draft for review, then as final to address review comments.
- NBWRA member agencies will provide a single set of collated comments using a comment log. Consultant team will document follow-up actions or rationale (if not revising a work product to incorporate one or more NBWRA member agencies comment[s]) in the comment log.

Budget.

Continued Recycled Water Support																			
Phase	Phase Description	Rene Guillen	Jacki Bates	Bernadette Visitation-Sumida	Melanie Holmer	Erin Mackey	Julia Teixeira	Deanna Tanner	Susan Sicora	Sara Romero	Total Labor Hours	Total Labor Effort	DI	ESA	Kennedy Jenks	Total Sub Cost	Total Expense Cost	Total Expense Effort	Total Effort
		PM	PA	Project Oversight	Technical Expert	Technical Expert	Engineering Support	Word Processing	Graphics	Finance			Cost	Cost	Cost				
		\$203.00	\$122.00	\$268.00	\$327.00	\$268.00	\$147.00	\$147.00	\$122.00	\$98.00									
001	Project Management	76	24	6	0	0	0	0	0	10	116	\$21,572	\$48,600	\$13,500	\$13,500	\$75,600	\$75,600	\$79,380	\$100,952
001	Workshops	58	0	0	0	0	0	0	0	0	58	\$12,127	\$16,200	\$8,100	\$8,100	\$32,400	\$32,400	\$34,020	\$46,147
003	Public Involvement	0	0	0	0	0	0	0	0	0	0	\$0	\$25,000	\$0	\$0	\$25,000	\$25,000	\$26,250	\$26,250
004	Administration	18	24	6	0	0	0	0	0	10	58	\$9,445	\$7,400	\$5,400	\$5,400	\$18,200	\$18,200	\$19,110	\$28,555
002	Title XVI Feasibility Study	0	0	0	0	0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
003	Environmental Evaluation	0	0	0	0	0	0	0	0	0	0	\$0	\$0	\$85,000	\$0	\$85,000	\$85,000	\$89,250	\$89,250
****	Environmental Evaluation	0	0	0	0	0	0	0	0	0	0	\$0	\$0	\$85,000	\$0	\$85,000	\$85,000	\$89,250	\$89,250
004	Financial Capability Determina	14	0	0	0	0	0	0	0	0	14	\$2,927	\$0	\$0	\$12,000	\$12,000	\$12,000	\$12,600	\$15,527
****	Financial Capability Determinir	14	0	0	0	0	0	0	0	0	14	\$2,927	\$0	\$0	\$12,000	\$12,000	\$12,000	\$12,600	\$15,527
005	Phase 2 Grant Application	50	0	0	8	6	25	6	4	0	99	\$20,002	\$5,000	\$0	\$0	\$5,000	\$5,000	\$5,250	\$25,252
****	Phase 2 Grant Application	50	0	0	8	6	25	6	4	0	99	\$20,002	\$5,000	\$0	\$0	\$5,000	\$5,000	\$5,250	\$25,252
006	Phase 1 Services	0	0	0	0	0	0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
007	Additional Services	180	0	0	20	40	100	6	6	0	352	\$72,217	\$5,000	\$5,000	\$5,000	\$15,000	\$15,000	\$15,750	\$87,967
****	Additional Services	180	0	0	20	40	100	6	6	0	352	\$72,217	\$5,000	\$5,000	\$5,000	\$15,000	\$15,000	\$15,750	\$87,967
GRAND TOTAL		320	24	6	28	46	125	12	10	10	581	\$116,719	\$58,600	\$103,500	\$30,500	\$192,600	\$192,600	\$202,230	\$318,949

Hours and Dollars are rounded to nearest whole number. To display decimals, change the format of the cells.

DRAFT Scope of Work – Drought Contingency Planning: Review and Assessment of the Regional Water Supply Resiliency Study

The Brown and Caldwell (BC) team shall work collaboratively with the North Bay Water Reuse Authority (NBWRA) member agencies to review Sonoma Water’s Regional Water Supply Resiliency Study (Study) to determine if it compares to the criteria of a “Drought Contingency Plan” (DCP) and to identify actions to be taken to meet the DCP criteria. The purpose is to allow NBWRA member agencies to make needed revisions or enhancements to the Study to afford them the opportunity to apply for U.S. Bureau of Reclamation (Reclamation) funding under the “Drought Resiliency Program.”

Task 1 – Document Review

The BC team will review the DCP requirements as described in Reclamation’s “WaterSMART Drought Response Program Framework” and those that were included in “Funding Opportunity Announcement No. R22AS00178 WaterSMART Drought Response Program: Drought Contingency Planning Grants for Fiscal Year 2022.” Topics will include:

Phase I

- Establishment of a Drought Planning Task Force.
- Development of a Detailed Work Plan.

Phase II

Per Reclamation guidance, new DCPs or DCP updates are required to address each of the six elements that are listed below. Updates to an existing drought plan may focus on only those elements that have not yet been developed in the plan, or that require further development or updating; however, completed plan updates must address each of these six elements.

- Drought Monitoring
- Vulnerability Assessment
- Mitigation Actions
- Response Actions
- Operational and Administrative Framework
- Plan Development and Update Process

The BC team will review the Study and other pertinent documents provided by NBWRA agencies and compare to the DCP requirements. If necessary, the BC team will meet with the Study consultant to determine available information that is not directly in the Study that could support the DCP effort.

Assumptions

- Sonoma Water will provide the Study or any other pertinent document within 5 days of the submitted request.
- If a meeting between the BC team and the Study consultant is needed, Sonoma Water will direct the Study consultant to meet. The meeting will be attended by up to two BC staff and one Data Instincts staff and be up to one hour in duration. It is assumed the meeting will be held by videoconference.

Task 2 – Technical Memorandum

The BC team will develop and provide a draft Technical Memorandum (TM) outlining the findings and identifying the items that should be addressed to make the Study meet DCP criteria. Findings will be presented to the Technical Advisory Committee (TAC) for comment. Following review and revision the BC team and NBWRA agency representatives will schedule a meeting with Reclamation staff to discuss the proposed approach and to receive Reclamation comments. A final TM will summarize the findings and recommended actions needed to develop a document sufficient to meet DCP requirements to allow applications for project funding through Reclamation’s “Drought Resiliency Program.”

Task 2 Deliverables

- One administrative draft (for review/comment) and one final version of the TM.
- Summary of meetings, focused on key outcomes and action items.

Task 2 Assumptions

- BC team will attend one meeting with the TAC to present findings and recommended actions needed to make the Study meet the DCP Criteria. The meeting will be attended by up to two BC staff and one Data Instincts staff and be up to two hours in duration.
- BC team will attend one meeting with Reclamation staff to discuss the proposed updates and receive feedback from Reclamation. The meeting will be attended by up to two BC staff and one Data Instincts staff and be up to two hours in duration.
- It is assumed that all the meetings will be held by videoconference.
- The TM will identify the needed updates to the existing Study but does not conduct/develop the action items identified in the TM.
- BC will conduct quality reviews on deliverables prior to submittal to the NBWRA Agencies. BC will submit deliverables to the NBWRA Agencies initially as a draft for review, then as final to address the NBWRA Agencies’ review comments.
- The NBWRA member agencies will have 10 days to review the draft TM.
- Sonoma Water will provide a single set of collated comments (in MS Word and/or an Excel comment log) from the NBWRA member agencies. BC will document follow-up actions or rationale (if not revising a work product to incorporate one or more of the NBWRA Agencies’ comment[s]) in the comment log.

Task 3 – Project Management

This task includes facilitation of project meetings; coordination of the project team; oversight of project staff, budget, and schedule; project administration and accounting; and monthly project status reports with invoices.

3.1. Project Management. Provide monthly progress reports via email to the Project Manager summarizing project status, identifying outstanding data needs, and noting challenges or risks that may impact budget or schedule. Include summaries of meetings conducted, including meeting attendees and key decisions and outcomes. Prepare monthly invoices and track schedule and progress of project. BC will oversee project staff and budget.

3.2. Progress Meetings. The BC Project Manager (PM) and Sonoma Water PM will hold up to six, one-hour progress meetings by phone to coordinate and collaboratively monitor project progress. While topics and activities for progress meetings will vary through project duration, these meetings will serve as a venue for reviewing analysis assumptions and results.

Task 3 Deliverables

- Monthly progress reports and invoices.

Task 3 Assumptions

- Up to 12 months of PM services and monthly progress reports.
- Meetings will be attended by up to two BC staff and one Data Instincts staff and be up to one hour in duration, unless noted otherwise. The progress meetings will be scheduled at the request of the Sonoma Water PM.
- It is assumed that all the meetings will be held by videoconference.

Budget.

Drought Contingency Planning: Review and Assessment of the Regional Water Supply Resiliency Study																
Phase	Phase Description	Rene Guillen	Jacki Bates	Bernadette Visitacion-Sumida	Melanie Holton	Sara Romero	Julia Teixeira	Deanna Tanner	Susan Sicora	Total Labor Hours	Total Labor Effort	Data Instincts	Total Sub Cost	Total Expense Cost	Total Expense Effort	Total Effort
		PM	PA	Project Oversight	QA/QC	Finance	Engineering Support	Word Processing	Graphics			Mike Savage Cost				
		\$203.00	\$122.00	\$268.00	\$268.00	\$98.00	\$147.00	\$147.00	\$122.00							
001	DCP Review	118	24	4	8	10	76	8	8	256	\$45,734	\$6,000	\$6,000	\$6,000	\$6,300	\$52,034
001	Document Review	60	0	0	0	0	40	0	0	100	\$18,602	\$4,000	\$4,000	\$4,000	\$4,200	\$22,802
002	Technical Memorandum	40	0	0	8	0	36	8	8	100	\$18,239	\$2,000	\$2,000	\$2,000	\$2,100	\$20,339
003	Project Management	18	24	4	0	10	0	0	0	56	\$8,893	\$0	\$0	\$0	\$0	\$8,893
GRAND TOTAL		118	24	4	8	10	76	8	8	256	\$45,734	\$6,000	\$6,000	\$6,000	\$6,300	\$52,034

Hours and Dollars are rounded to nearest whole number. To display decimals, change the format of the cells.

DRAFT Scope of Work – Sea Level Rise Adaptation: BRIC Grant Application

The following scope describes the services to develop a FEMA Building Infrastructure and Communities (BRIC) Grant application intended to help support the development of a Las Gallinas Valley Sanitary District and Marin County Adaptation Plan. It is assumed that these services will be amended to the existing Consultant contract.

Task 1 – BRIC Grant Application & Management

The Consultant team will support NBWRA member agencies preparation of one (1) BRIC grant application. The grant application will include a detailed narrative to address evaluation criteria cited for the respective funding opportunity. The Consultant team will prepare one draft of the grant application that will be submitted to the NBWRA member agencies seeking funding for review and comment and finalize to incorporate comments. Once the grant application is submitted, the Consultant team will respond to questions and comments that may arise as requested by the NBWRA member agencies. The Consultant team will provide services up to the limit of the budget.

Task 1 Deliverables:

- Draft and final grant applications for one (1) BRIC grant application.

Task 1 Assumptions:

- Consultant team will require notice of at least 6 weeks before a grant application deadline for coordinating a staffing plan and allowing NBWRA member agencies review time. NBWRA member agencies review period for the draft grant application is up to 5 business days depending on the required timeline for the grant opportunity.
- NBWRA member agencies will provide required forms and information required from the grant applicant, such as: required federal/state forms; Board resolution; project budget with in-kind staff costs (including, for example, staff names/titles, estimated number of project hours, and current hourly salary); NBWRA member agencies internal rates for paid absence, fringe benefits, and overhead); federal indirect cost rates; and a letter of local partner funding commitment (i.e., funding amount, date funding will be available, time constraints on funding availability, and other contingencies).
- Consultant team will conduct quality reviews on deliverables prior to submittal to NBWRA member agencies. Consultant team will submit deliverables to NBWRA member agencies initially as a draft for review, then as final to address review comments.
- NBWRA member agencies will provide a single set of collated comments using a comment log. Consultant team will document follow-up actions or rationale (if not revising a work product to incorporate one or more NBWRA member agencies comment[s]) in the comment log.
- A maximum of 8 hours has been budgeted for responding to comments and questions on the submitted grant application.

Task 2 – Project Management

The Consultant will provide monthly progress reports via email to the Project Manager summarizing project status, identifying outstanding data needs, and noting challenges or risks that may impact budget or schedule. Include summaries of meetings conducted, including meeting attendees and key decisions and outcomes. Prepare monthly invoices and track schedule and progress of project.

Task 2 Deliverables

- Monthly progress reports and invoices.

Task 2 Assumptions

- Up to 2 months of PM services and monthly progress reports.
- It is assumed that any potential meetings will be held by videoconference.

Budget.

Sea Level Rise Adaptation - BRIC Grant Application												
Phase	Phase Description	Rene Guillen	Jacki Bates	Bernadette Visitacion-Sumida	Sara Romero	Total Labor Hours	Total Labor Effort	ESA	Total Sub Cost	Total Expense Cost	Total Expense Effort	Total Effort
		PM	PA	Project Oversight	Finance			Cost				
		\$203.00	\$122.00	\$268.00	\$98.00							
001	BRIC Grant Application	6	0	0	0	6	\$1,255	\$50,000	\$50,000	\$50,000	\$52,500	\$53,755
****	Sea Level Rise Adaptation	6	0	0	0	6	\$1,255	\$50,000	\$50,000	\$50,000	\$52,500	\$53,755
002	Project Management	2	3	1	1	7	\$1,034	\$0	\$0	\$0	\$0	\$1,034
****	Sea Level Rise Adaptation	2	3	1	1	7	\$1,034	\$0	\$0	\$0	\$0	\$1,034
GRAND TOTAL		8	3	1	1	13	\$2,289	\$50,000	\$50,000	\$50,000	\$52,500	\$54,789

Hours and Dollars are rounded to nearest whole number. To display decimals, change the format of the cells.

DRAFT Scope of Work – Sea Level Rise Adaptation Plan Option 4B & Option 4C

The following scope describes proposed scope of work for the Option 4B \$115,000 SLR Adaptation Plan, which envisions a Marin County focused plan. To extend this plan to the entire NBWRA service area, Option 4C, we would anticipate a similar scope of work, but at an increased scale, with a cost estimate of \$252,000

Task 1 – Project Management

The Consultant will provide monthly progress reports via email to the Project Manager summarizing project status, identifying outstanding data needs, and noting challenges or risks that may impact budget or schedule. Include summaries of meetings conducted, including meeting attendees and key decisions and outcomes. Prepare monthly invoices and track schedule and progress of project.

Task 1 Deliverables

- Monthly progress reports and invoices.

Task 1 Assumptions

- Up to 2 months of PM services and monthly progress reports.
- It is assumed that any potential meetings will be held by videoconference.

Task 2. Strategic outreach and coordination

ESA will work with Member Agencies to develop a strategic outreach plan aimed at validating sea-level rise risks and vulnerabilities, and building stakeholder (landowner) support for future adaptation concepts. ESA will in implement some aspects of the outreach plan as described below.

1. **Strategic outreach/coordination plan.** ESA will develop a strategic outreach plan (draft and final) that identifies the goals of outreach, key stakeholders, the number of stakeholder outreach meetings, and the content and objectives of each outreach meeting.
2. **External stakeholder outreach meetings:** In partial implementation of the strategic outreach plan, ESA will meet twice with key stakeholders. The first meeting will likely explain risks and vulnerabilities to landowners identified in Task 2a to solicit input on adaptation strategies. This meeting will inform refinement of the screening criteria in Task 3 and development and evaluation of adaptation concepts in Task 4. In a second meeting, including both stakeholders and also select members of the broader community to be determined by the project team and potentially, the TAC. ESA will share the preliminary adaptation options developed in Task 4 and receive feedback. ESA will support facilitation of these meeting with the development of materials, presentation, and agendas for the meetings
3. **Stakeholder Public Meeting/Charette:** ESA will facilitate a public meeting to review adaptation strategies and garner input.
4. **Optional to be augmented with additional funds:** *attend additional stakeholder meetings and/or City Council briefing mid-way, identified in Strategic Outreach plan and agreed upon by NBWRA.*

Deliverables:

- a. Memo: Draft and Final strategic outreach plan
- b. Up to 3 meetings with external stakeholders including meeting attendance/facilitation, technical content development/presentation, and action items.
- c. Two Public Meetings. Including meeting attendance/facilitation, presentations as appropriate, and action items follow up. It is also assumed

that TAC meeting content, agendas, etc. will be identical to the content developed for external stakeholder meetings.

- d. *Optional deliverable: ESA attendance or support of additional individual or public stakeholder meetings.*

Task 3. Decision making framework. This task provides the framework in which the NBWRA and stakeholders will consider and decide about their shoreline adaptation. The goals/vision/and screening criteria that form part of the framework may need to be vetted with stakeholders at a future date in order to get buy-in. A vetting may be identified in the Strategic Outreach Plan.

- a. ESA will draft a risk-informed decision-support framework that includes an initial vision, goals, and objectives of adaptation planning. The framework will include recommended preliminary screening/and evaluation criteria that can be modified with city and stakeholder input as appropriate. We will start with standard criteria often used in flood risk management (such as frequency of flooding, reduced damages, etc.), and we may add up to 8 NBWRA or stakeholder-driven criteria such as i) the types of permits needed, ii) potential acquisition issues for various concepts, and/or iii) those criteria developed in the Adapting to Rising Tides program, to support decision-making and better reflect unique interests and value of NBWRA.
- b. ESA will meet with the NBWRA project manager to discuss the framework in the context of the memo, solicit input, and revise as necessary. General feedback from external stakeholder meeting #1 in Task 2 may also inform the draft or revision of the decision framework.

Deliverables: Draft and final Decision-support memo. Assumes two rounds of ESA revision and consolidated comments.

Task 4. Understand risks and vulnerabilities

The key risks and priorities identified in this task will directly inform the set of concepts/alternatives developed in task 5.

- c. ESA will review existing studies and synthesize the primary concerns identified therein, studies include: Marin County Hazard Management Plan, BayWave vulnerability assessment; Burlingame General Plan update, the latest FEMA FIRM mapping, BCDC Guidance; and other studies. *Our focus will be applying work completed to date to adaptation strategies that can inform a list of projects for funding. ESA will not generate any new analyses or data in this effort.*
- d. ESA will then identify key risks and vulnerabilities in the project area. This includes highlighting where risks may be the greatest or most urgent, and whether there any areas or risks which would be considered intolerable. They will use this information to identify key or priority areas.
- e. ESA and staff will meet with County and City Floodplain Administrators to validate findings in terms of key vulnerabilities/risks, and to collect any additional critical information from those staff that may be discussed in the meeting.

- f. Following the review, ESA will identify critical information gaps that will be essential to more fully understanding risks. They will make recommendations for filling those gaps in Task 7, and preliminary cost estimates associated with the recommendations.

Deliverables:

- a. Draft and final memo that summarizes key risks and vulnerabilities. Assumes one round of review with one set of consolidated comments from NBWRA. Memo is intended for an educated lay-person audience, i.e., memo will assume readers understand what SLR is, its causes, etc. and will focus on highlighting key risks that will be addressed by adaptation concepts identified in subsequent tasks.

Task 5. Identify and screen adaptation options to reduce risks and vulnerabilities

- g. ESA will identify no more than 3 concepts to reduce the risks and vulnerabilities identified in Task 4 above. Adaptation concepts will include a range of structural and nonstructural options, and at least one nature-based or multi-benefit strategy.
- h. ESA will then use a matrix to screen/evaluate the adaptation concepts with the screening criteria established in Task 3. This screening/evaluation will consider how well each of the concepts perform compared to the criteria and whether or how they work toward the established goals.
- i. As appropriate, ESA will develop 1 page project summary sheets and background information to support funding applications. We anticipate a CIP list of projects can be developed for articulation at both an individual project and overall program. Our scope of work assume development up of up ten project descriptions.

Deliverables:

- a. Internal Preliminary Draft, Draft, and Final memo describing the adaptation concepts and the results of the evaluation process. This assumes that the preliminary draft is reviewed by the NBWA, that the draft will be presented to stakeholders at External Stakeholder meeting #2, and that the Final draft will incorporate feedback (as appropriate) from External Stakeholder meeting #2.

Task 6. Advance and illustrate concepts for further consideration

ESA and NBWRA will come to an agreement on the two highest scoring adaptation concepts to illustrate and advance for future consideration. Illustrating the concepts will give stakeholders and Member Agencies a better vision for what future adaptation concepts could look like on the ground with context which can offer clarity, generate enthusiasm for concepts, and dispel fears about the unknowns. It is assumed that illustrations will demonstrate concepts in context, but will not be detailed enough to support feasibility or engineering analyses.

- j. ESA will work with NBWRA to select 2 top concepts for advancement that consider the results of the screening evaluation and stakeholder input received from Stakeholder Meeting #2.
- k. Create graphic renderings of the 2 selected adaptation concepts. *note, this is the more labor intensive of these two sub-tasks—anticipated that 6a can be done rather efficiently.

Deliverables: **a.** Draft and final illustrations of two selected adaptation concepts.

Task 7. Next steps strategy and Final Presentation

- I. ESA will develop a memo that identifies the next steps for the NBWRA to advance shoreline adaptation. The memo will recommend sequencing, and may include items like:
 - i. Key studies gaps that must be filled, and why
 - ii. Hydraulic and hydrologic modeling that may be needed to better evaluate how adaptation concepts reduce flood risks.
 - iii. Additional studies or analysis needed to refine the adaptation concepts evaluation, i.e., economics/benefit-cost analysis, cost estimates of adaptation concepts
 - iv. Key Projects that Can be applied for funding programs
 - v. Anticipated permitting, rights of way, policy challenges that may need to be addressed, as identified through screening in task 5b.
 - vi. Potential land use changes or zoning updates that may be required
 - vii. List of additional agencies/stakeholders likely needed to advance the effort and/or fund, permit, construct, implement
 - viii. Sequencing of the steps with rough time frame
- m. **Final presentation to NBWRA Board/Stakeholders**
ESA will develop a final summary presentation to identify the key messages for the NBWRA Member Agencies and stakeholders, likely including an overview of the project process, the key findings, and next steps.

Deliverables:

- a.** Draft and final next steps strategy memo
- b.** Final summary presentation (draft and final)

Budget.

Option 4B

NBWR Focused SLR ESA Labor Detail and Expense Summary

		2021 Employee Billing Rates																																										
Employee Names																																												
Labor Category		Senior Director III	Senior Director II	Senior Director I	Director III	Director II	Director I	Managing Associate III	Managing Associate II	Managing Associate I	Senior Associate III	Senior Associate II	Senior Associate I	Associate III	Associate II	Associate I	Subtotal	Project Technician III	Project Technician II	Project Technician I	Subtotal	Total Hours	Labor Price																					
Task #	Task Name/Description	\$ 325	\$ 300	\$ 275	\$ 260	\$ 245	\$ 225	\$ 220	\$ 205	\$ 190	\$ 185	\$ 170	\$ 160	\$ 145	\$ 135	\$ 115		\$ 130	\$ 110	\$ 90																								
1.0	Project Management		16										8				\$ 5,860				\$ -	24.00	\$ 5,360																					
2.0	Strategic Outreach		16									32	8				\$ 11,600				\$ -	56.00	\$ 11,000																					
3.0	Decision Making Framework		16									32	8				\$ 11,600				\$ -	56.00	\$ 11,000																					
4.0	Vulnerability		8			32						32	8				\$ 16,520				\$ -	80.00	\$ 16,520																					
5.0	Adaptation Strategies		8			32						80	8				\$ 24,200				\$ -	128.00	\$ 24,200																					
6.0	Advance Concepts		16			16						40	8				\$ 16,800				\$ -	80.00	\$ 16,200																					
7.0	Next Steps Strategy		8										8				\$ 3,560				\$ -	16.00	\$ 3,560																					
																	\$ -				\$ -		\$ -																					
	Total Hours		88			80						216	56				\$ 440				\$ -	440																						
	Total Labor Costs	\$ -	\$ 26,400	\$ -	\$ -	\$ 19,600	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 34,560	\$ 8,120	\$ -	\$ -	\$ 26,680	\$ -	\$ -	\$ -	\$ -		\$ 88,680																					
	Percent of Effort - Labor Hours Only	0.0%	20.0%	0.0%	0.0%	18.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	48.1%	12.7%	0.0%	0.0%	80.6%	0.0%	0.0%	0.0%	0.0%	100.0%																						
	Percent of Effort - Total Project Cost	0.0%	22.9%	0.0%	0.0%	17.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	29.9%	7.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		76.8%																					
																						ESA Labor Cost																					\$ 88,680	
																						Labor Cost Communication Fee																						\$ 2,660
																						ESA Non-Labor Expenses																						
																						Reimbursable Expenses																						\$ 9,134
																						ESA Equipment Usage																						\$ -
																						Subtotal ESA Non-Labor Expenses																						\$ 9,134
																						Subconsultant Costs																						\$ 15,000
PROJECT TOTAL																																												\$ 115,474

Option 4C

NBWR Full Service Area SLR ESA Labor Detail and Expense Summary

		2021 Employee Billing Rates																																										
Employee Names																																												
Labor Category		Senior Director III	Senior Director II	Senior Director I	Director III	Director II	Director I	Managing Associate III	Managing Associate II	Managing Associate I	Senior Associate III	Senior Associate II	Senior Associate I	Associate III	Associate II	Associate I	Subtotal	Project Technician III	Project Technician II	Project Technician I	Subtotal	Total Hours	Labor Price																					
Task #	Task Name/Description	\$ 325	\$ 300	\$ 275	\$ 260	\$ 245	\$ 225	\$ 220	\$ 205	\$ 190	\$ 185	\$ 170	\$ 160	\$ 145	\$ 135	\$ 115		\$ 130	\$ 110	\$ 90																								
1.0	Project Management		16										16				\$ 2,480				\$ -	32.00	\$ 7,120																					
2.0	Strategic Outreach		40									100	16				\$ 31,520				\$ -	156.00	\$ 31,320																					
3.0	Decision Making Framework		16									100	16				\$ 24,480				\$ -	132.00	\$ 24,120																					
4.0	Vulnerability		40			100						100	16				\$ 55,600				\$ -	256.00	\$ 55,520																					
5.0	Adaptation Strategies		40			100						100	16				\$ 55,600				\$ -	256.00	\$ 55,520																					
6.0	Advance Concepts		16			40							80	16			\$ 28,320				\$ -	152.00	\$ 28,720																					
7.0	Next Steps Strategy		8									4	16				\$ 5,400				\$ -	28.00	\$ 5,400																					
																	\$ -				\$ -		\$ -																					
	Total Hours		176			240						404	80				\$ 492				\$ -	1,012																						
	Total Labor Costs	\$ -	\$ 52,800	\$ -	\$ -	\$ 58,800	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 68,680	\$ 12,800	\$ 16,240	\$ -	\$ 208,320	\$ -	\$ -	\$ -	\$ -		\$ 209,320																					
	Percent of Effort - Labor Hours Only	0.0%	17.4%	0.0%	0.0%	23.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	39.9%	7.9%	11.1%	0.0%	80.6%	0.0%	0.0%	0.0%	0.0%	100.0%																						
	Percent of Effort - Total Project Cost	0.0%	20.9%	0.0%	0.0%	23.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	27.2%	5.1%	6.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		83.0%																					
																						ESA Labor Cost																						\$ 209,320
																						Labor Cost Communication Fee																						\$ 6,280
																						ESA Non-Labor Expenses																						
																						Reimbursable Expenses																						\$ 21,560
																						ESA Equipment Usage																						\$ -
																						Subtotal ESA Non-Labor Expenses																						\$ 21,560
																						Subconsultant Costs																						\$ 15,000
PROJECT TOTAL																																												\$ 252,160