Scope of Work - Amendment 1

Hydrogeologic Modeling Services in Support of the Monterey County Water Resources Agency's Nacimiento – San Antonio Interlake Tunnel and San Antonio Spillway Modification Project (Project)

The initial seven-month schedule of modeling work in 2017 has been extended to 30 June 2021 under the 18 October 2018 Agreement between Wood Environment & Infrastructure Inc. (Wood) and the Monterey County Water Resources Agency (Agency). This Amendment 1 provides an updated scope of work (scope) and budget to continue technical support of the engineering and environmental decision processes of the Project by providing model results.

Organization of the Contents

- Modeling Objectives
- Updated Scope Objectives
- Updated Scope of Work by Tasks
- Proposed Budget Augmentation & Work Schedule (Table 1)

Modeling Objectives This updated scope is to continue collaboration with the U.S. Geological Survey (USGS), developer of the Salinas Valley Integrated Hydrologic Model (SVIHM), and to implement the operational SVIHM in support of the Project - which was part of the original modeling work identified in the 2017 and 2018 USGS agreements. Details of the original scope are in Exhibit 1 of the 10 October 2018 Wood Agreement.

The USGS has completed development of the operational SVIHM system that simulates the integrated groundwater/surface water system of the Salinas Valley Groundwater Basin (SVGB). This modeling system consists of an HSPF watershed and BCM climate model, the Salinas Valley Watershed Model (SVWM); a hydrogeologic framework model; and a land use model, all feeding into the SVIHM, which uses the MODFLOW-OWHM code.

Implementing the operational SVIHM includes simulating the impacts and benefits of the Project by incorporating physical and operational details of the Project into the modeling system. Wood will continue to modify SVIHM input parameters and operational logic as appropriate to reflect the operational and design criteria of various potential configurations of the Project as well as select alternative (future) projects. The results of these simulations will be reported in a series of TMs and hydrographs/data spreadsheets.

Updated Scope Objectives Since receiving the model in April 2018, Wood has performed extensive testing, running the received version of the model and all updated versions (both updates to the groundwater model and updates to the Surface Water Operations [SWO] process), post-processing these test runs, and analyzing the post-processed results. The efforts originally scoped under Subtask 1.3 "Coordination with USGS" were expected to be limited to Wood working with the USGS to learn how to use the model, which was to be delivered as the operational Baseline model. The actual efforts to assist the USGS ended up being much more extensive. The proposed updated scope includes the additional efforts (not in the 2018 Wood Agreement) for Wood to assist the Agency and the USGS in interpreting and validating the operational SVIHM results relative to current hydrologic conditions in the SVGB. A critical-path effort is for Wood to continue to modify the SWO rule file to incorporate reservoir operations that were not previously anticipated.

Updated Scope of Work by Task

Task 1: Project Management, Workplan, and USGS Coordination

Task 1.1 Project Management

This subtask is proposed to administer the project and coordinate management of the engineering and environmental support efforts by Wood for the duration of the seven-month continued modeling effort. Wood will manage efforts by the team, which includes sub consultant Flow West, Inc. The project manager (PM) will participate in bi-monthly (two per month) project meetings with the Agency.

Updated Scope:

• The project management efforts are extended to the end of 2019.

Budget augmentation (Table 1 and Exhibit B).

Deliverables: Monthly progress report, budget status, earned value report, and invoicing.

Task 1.2 Concise Modeling Workplan - HEC-RAS, SWO, SVIHM, HSPF

Wood will prepare a "Workplan" consistent with engineering and environmental requirements and concisely describe the modeling approach in coordination with the Agency. The approach is intended to support the required deliverables put forth by both the engineering and environmental consultants. The Workplan can be updated as the modeling project progresses to accommodate changes in specific study requirements.

Deliverables: Initial draft and one update of the Workplan.

Task 1.3 Modeling Coordination with USGS

Wood will receive the SVIHM-2014Base from the USGS in a ready-to-run state. Wood will run the model to confirm successful operation, and will become familiar with the inputs, outputs, structure, and parameters of the modeling system.

Updated Scope:

- Extensive review of Flow Prescription memo and re-coding of Flow Prescription rule files for SWO (smolt and juvenile passage), plus minor editing to SWO related files.
- Extensive review of current MCWRA operational approach (with MCWRA) and alignment of all SWO rules files.
- Extensive review of model output files and consulting with USGS to identify improvements to the model executable and SVIHM historical calibration

Budget augmentation (Table 1 and Exhibit B).

Deliverable: E-mail communications with the USGS and the Agency

Task 2: Team Kick-Off Meeting and External Coordination

Task 2 is proposed to coordinate management of the engineering and environmental support efforts by Wood for the duration of the seven-month modeling effort. The PM and specific modeling leads will participate in bi-monthly (two per month) project meetings with the Agency. Certain meetings could include the Agency staff, environmental consultant, the design/engineering consultant, and the ILT Project Manager.

Updated Scope:

• The External Coordination efforts are extended to the end of 2019.

Budget augmentation (Table 1 and Exhibit B).

Deliverable: Meeting agenda, handouts, minutes and action items for up to 14 meetings.

Task 3: Baseline Model (This task is 95% complete)

Current operational configurations will be continued into the future, as will current land use and pumping configurations. Year 2045 water demands for the SVIHM-2045Base will be developed in coordination with the USGS or will be a synthetic hydrology that is based on projected climate change conditions.

Wood has made notable progress in the original scope of work, specifically on Task 3 (95%). However, the significant level of effort expended negatively impacted the original estimated budget. A small updated scope and budget augmentation are requested in Table 1 and Exhibit B.

Updated Scope:

Wood use a 2014 baseline model with 2014 water demand conditions to simulate hydrology under projected year 2045 water demand conditions, without Project implementation.

Budget augmentation (Table 1 and Exhibit B).

Deliverable: Hydrographs of SVIHM-2045Base are the results against which subsequent scenarios will be compared.

Task 4: HEC-RAS Model Incorporation and Implementation

Task 4.1 HEC-RAS Model Incorporation

Wood will receive the Salinas River 2D HEC-RAS model from the Agency in a ready-to- run state, including a complete set of input and output files for the calibrated historical simulation. Wood will run the model to confirm successful operation, and will become familiar with the inputs, outputs, structure, and parameters of the model. Wood will analyze the event- based results to become familiar with the area of inundation, depth of inundation, duration of inundation, and velocity vector maps of historical flood events.

Wood will build a tool to integrate the 2D HEC-RAS model into the SVIHM-2014Base. This tool will translate the model outputs from the SVIHM-2014Base into inputs for the 2D HEC-RAS model. This will allow for the detailed simulation by 2D HEC-RAS of the impacts of inundation events, including consideration of how the interaction between the groundwater and surface water systems affects the propagation of flood events.

Updated Scope:

- Included flood rule curves for both San Antonio and Nacimiento, changing the max stage variables accordingly;
- Continue to discuss operational rules for downstream controls with Agency;
- Re-write fish release SWO rule files to align with required flow prescription document;

Budget augmentation (Table 1 and Exhibit B).

Deliverable: TM#1 – Summary of integration approach, results, and benefits.

Assumption: The Team will respond to comments on two (2) drafts of the TM and prepare a final TM.

Task 4.2 2D HEC-RAS Model Runs – Baseline plus Two Alternatives

The integrated 2D HEC-RAS model will be used to simulate a set of flood events that appear in the results of the SVIHM-2014Base. Approximately 12 flood events will be simulated in the 2D HEC-RAS model; these events will be selected from the SVIHM-2014Base results in coordination with the Agency and the USGS. Results of the 2D HEC-RAS model simulations will be presented in terms of area of inundation, depth of inundation, duration of inundation and velocity vector maps.

Four alternative scenarios developed under Tasks 5 and 6 (two for the Tunnel-Only option and two from the Tunnel plus Spillway option) will include 2D HEC-RAS model runs to investigate the Project effect of the alternative scenarios on flood events. The alternative scenarios will be selected from the Tunnel-Only and Tunnel plus Spillway Modification alternatives in coordination with the Agency. The same set of flood events analyzed for the SVIHM-2014Base results will be analyzed using the results of the selected two alternative scenarios, and the model results of the selected alternatives will be compared against the same flood events in the SVIHM-2014Base results.

Deliverable: TM#1 Continuation – Summary discussion of SVIHM-2014Base and selected alternative scenarios. TM#2 will present the approach to incorporation of the 2D HEC-RAS model with the SVIHM-2014Base. Modifications made to the existing 2D HEC-RAS model will be reported. The process for choosing 12 flood events will be reported. TM#2 will present the results of the 2D HEC-RAS model run based on SVIHM-2014Base conditions.

Assumption: The Team will respond to comments on two (2) drafts of the TM and prepare a final TM.

Task 5: Tunnel-Only Model System

A set of up to 7 alternative scenarios will be developed incorporating construction of the Interlake Tunnel only, analyzing its effects compared to baseline conditions of the SVIHM-2014Base. Task 5.1 is devoted and budgeted for three tunnel design-related alternative model runs. Task 5.2 is intended for four tunnel operations-related alternatives model runs.

The model scenarios will be configured in coordination with the Agency to reflect variants of the design and operation of the engineered surface water system. The results of each alternative scenario will be compared against the SVIHM-2014Base. As noted in Task 4.2, two of the alternative scenarios will also be simulated using the 2D HEC-RAS model to investigate the effects of the alternative configuration relative to flood or peak flow events. Changes to the model system will largely be limited to modification of the parameters of the Surface Water Operations (SWO) Package, reflecting alternative designs and operational rules.

Updated Scope:

- Continued extensive coordination with USGS and MCWRA to identify issues with and address corrections to SWO and SVIHM;
- Continued to modify the new rule files to incorporate reservoir operations that were previously not included, such as: 1) flood rule curve; 2) tunnel rules; and 3) spillway raise rules;
- Discussed model status with Agency weekly, instead of biweekly;
- Incorporated SLO diversion and Nacimiento lakeside use into model;
- Updated tunnel logic to prevent spill by limiting transfer to the storage remaining in San Antonio and inflow into San Antonio;
- Extensively reviewed the SWO code and modified the SWO rule/logic;
- Advised the Agency/USGS on needed adjustments to the SWO code and informed them of changes by Wood to the rule files;
- Continued to compare new model results to ECORP benefit calculations;
- Prepared model runs to test the latest USGS model versions.
- Worked on groundwater infiltration calibration improvement with focus on river losses;
- Corrected diversion rule modeling in SWO for San Luis Obispo County diversion and Nacimiento lakeside use: and
- Expanded inflow time series for reservoir input/SWO triggers at Sapaque.

Budget augmentation (Table 1 and Exhibit B).

Deliverable: TM#2 will present the results of the Tunnel-Only modeling scenarios. Results will be presented for each scenario and will be compared against the SVIHM-2014Base results. As applicable, results for any HEC-RAS model runs (Task 4.2) will be presented.

Assumption: The Team will respond to comments on two (2) drafts of the TM and prepare a final TM.

Task 6: Tunnel Plus Spillway Modification Model System

A set of up to 9 alternative scenarios will be developed incorporating construction of the Interlake Tunnel Plus Spillway Modification, analyzing its effects compared to baseline conditions of the SVIHM-2014Base. Task 6.1 is devoted and budgeted for three tunnel/spillway design-related alternative model runs. Task 6.2 is intended for six tunnel/spillway operations-related alternative model runs.

The results of each alternative scenario will be compared against the SVIHM-2014Base. Two of the scenarios will also be simulated using the 2D HEC-RAS model (Task 4.2) to investigate the effects of the alternative configuration relative to flood or peak flow events. Changes to the model system will largely be limited to modification of the parameters of the SWO Package, reflecting alternative designs and operational rules.

Through the course of Tasks 5 and 6, a Preferred Alternative will be identified that demonstrates maximum benefit. The results of this Preferred Alternative will be used during subsequent tasks for the purposes of comparison.

Updated Scope:

Update input data files for baseline, tunnel, and tunnel-with-spillway model runs.

Budget augmentation (Table 1 and Exhibit B).

Deliverable: TM#3 will present the results of the Tunnel Plus Spillway Modification modeling scenarios. Results will be presented for each scenario and will also be compared against the SVIHM-2014Base. As applicable, results for any 2D HEC-RAS model runs will be presented.

Assumption: The Team will respond to comments on two (2) drafts of the TM and prepare a final TM.

Task 7: Alternative Project Scenario: New Upstream Reservoir (No updates)

An Alternative Project Scenario will be configured to simulate operation of the proposed Jerrett Reservoir in lieu of the Interlake Tunnel Project. The Jerrett Reservoir site is located upstream of Nacimiento Reservoir along the Nacimiento River, approximately at its confluence with El Piojo Creek (Boyle, 1991). It's designed storage capacity is 145,000 acre-feet, with a usable storage volume of 135,000 acre-feet. The Jerrett Reservoir will be incorporated into the SVIHM-2014Base by the USGS. Operational rules will be developed in coordination with the Agency. The results of the Upstream Reservoir Alternative Project Scenario will be compared to the SVIHM-2014Base scenario to demonstrate the effects of the Alternative Project and will also be compared to the Preferred Alternative scenario to provide a comparison of benefits of the projects. Additionally, downstream effects will be analyzed with the HEC-RAS model.

Deliverable: TM#4 will present the results of the Alternative Project Scenarios. Results will be presented for each Alternative Project Scenario and will be compared to the results of the Preferred Alternative scenario and the SVIHM-2014Base scenario to quantify any potential benefits of the Alternative Project Scenarios. TM#4 will present results of alternative project scenarios for both Tasks 7 and 8.

Assumption: The Team will respond to comments on two (2) drafts of the TM and prepare a final TM.

Task 8: Alternative Project Scenario: Modification to Nacimiento Outlet Works (No updates) An Alternative Project with a separate project description will be configured to simulate modifications to the Nacimiento Outlet Works in lieu of the Project. This modification would allow for increased conservation releases from the Nacimiento Reservoir. This Alternative Project will be incorporated through modification of the operational rules to be developed within the SWO Package. The results of the Nacimiento Outlet Works Modification Alternative Project Scenario will be compared to the SVIHM-2014Base to demonstrate the effects of the Alternative Project and will also be compared to the Preferred Alternative scenario to provide a comparison of potential benefits of the project. Additionally, downstream effects will be analyzed with the HEC-RAS model.

Deliverable: TM#4 will present the results of the Alternative Project Scenarios. Results will be presented for each Alternative Project Scenario and will be compared to the results of the Preferred Alternative scenario and the SVIHM-2014Base scenario to quantify any potential benefits of the Alternative Project Scenarios. TM#4 will present results of alternative project scenarios for both Tasks 7 and 8.

Assumption: The Team will respond to comments on two (2) drafts of the TM and prepare a final TM.

Task 9: Build-Out Scenarios: Sea Level Rise, and Climate Change Scenarios (No updates)Four model scenarios will be developed to investigate the effects of year 2045 water demand, sea level rise, and climate change on the groundwater-surface water system. The four scenarios will be

developed in coordination with the Agency and the USGS. Development of these scenarios will include a few considerations that include the following:

 Changes to water demand over the model period, including changes to municipal, industrial, and agricultural demand based on: existing projections of population change; anticipated changes to agricultural demand due to increased temperature under a changing climate; and initial estimates of future agricultural demand scaled from current demand.

- Rising sea levels due to climate change, which will be incorporated into the SVIHM-2045Base through modification of the model boundary condition at Monterey Bay.
- Changes in climate, mostly manifested through changes to precipitation, temperature, and
 potential evapotranspiration. A modified hydrology will be developed for each of the four
 scenarios by running the SVWM under a modified set of climate inputs, and the SVWM
 results will be used to construct boundary conditions for the SVIHM-2045Base (streamflow
 and recharge at the edges of the model).
- The Pure Water Monterey Project will be incorporated into the Build-Out Scenarios through modification of the SWO Package in the SVIHM.

Climate change will be incorporated into the SVIHM-2014-Base using input and output data from the USGS Basin Characterization Model (BCM), which simulates hydrologic conditions throughout California using a set of climate projections downscaled to a 270-meter resolution. A selection of climate futures will be chosen from those simulated by the BCM, with the scenarios selected to define an envelope of potential climate futures, from warm to hot and from dry to wet. The results will give a range of groundwater-surface water system conditions that can be expected under future climate and water demand conditions.

The Build-Out Scenarios will utilize the Preferred Alternative identified under Tasks 5 and 6. Results of the Build-Out Scenarios will be compared to the Baseline Model results and to the Preferred Alternative results. The Build-Out Scenarios will not be simulated in the 2D HEC-RAS model.

Deliverable: TM#5 will present the details of all parts of the Build-Out Scenarios, including the setup

and results of each of the four scenarios. The details of model setup will be listed, including the projected changes in water demand, the development of sea level rise time series, the development of the climate futures, and the parameters of the Pure Water Monterey Project. Model scenario results will be compared to the SVIHM-2014Base to demonstrate changes over time.

Assumption: The Team will respond to comments on two (2) drafts of the TM and prepare a final TM.

Task 10: Configuration of New Downstream Diversion (No updates)

Wood will incorporate a potential new downstream diversion into the SVIHM-2014Base. This scenario would be based on the Preferred Alternative scenario, with the addition of the potential downstream diversion. The downstream diversion will be incorporated into the SVIHM-2014Base through modification of the SWO Package as well as the Surface Water Routing (SWR) and Streamflow Routing (SFR) Packages and Farm Process, as necessary. Results of this scenario will be compared to results of the SVIHM-2014Base and the Preferred Alternative scenario.

Deliverable: TM#6 will present the results of the New Downstream Diversion scenario. Information will be presented on the configuration of the downstream diversion and changes to operational rules. The results will be compared to quantify potential effects on water supply.

Assumption: The Team will respond to comments on two (2) Drafts and prepare a final TM.

Table 1 - Proposed Budget Augmentation and Work Schedule

Task #	Task Names	Additional Costs	Total Costs	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Deliverables
1	Project Management; Workplan, and USGS Coordination	\$88,873	\$138,930	11,577	11,577	11,577	11,577	11,577	11,577	11,577	11,577	11,577	11,577	11,577	Modeling Workplan; Monthly Project Reports; invoices
2	Coordination External Meetings Team Kick Off meeting and	\$867	\$31,771		5,295	5,295	5,295		5,295		5,295		5,295		Meeting Minutes
3	Baseline Model	\$6,449	\$6,626												
4	HEC-RAS Model Incorporation and Implementation (3 runs)	\$8,217	\$52,219			17,406	17,406	17,406							TM#1
5	Tunnel Only Model System (7 runs)	\$54,016	\$139,766	27,953	27,953	27,953	27,953	27,953							TM#2
6	Tunnel + Spillway Modification Model System (9 runs)	\$3,723	\$125,951			31,488	31,488	31,488	31,488						TM#3
7	Alternative Project Scenario: New Upstream Reservoir - Jerrett Reservoir (1 run)	\$0	\$11,267							5,633	5,633				TM#4
8	Alternative Project Scenario: Modification to Nacimiento Outlet Works (1 run)	\$0	\$14,321			7,160	7,160								TM#4
9	Buildout Scenarios: Climate Change / Sea Level Rise / Monterey Pure (4 runs)	\$0	\$46,727							11,682	11,682	11,682	11,682		TM#5
10	Configuration of New Downstream Diversion (1 run)	\$0	\$29,711										14,855	14,855	TM#6
	Contingency Budget	\$8,107	\$32,040												
	Total Charge	\$170,252	\$629,327												
	Projected Monthly Charges			39,531	44,826	100,880	100,880	88,425	48,360	28,893	34,188	23,259	43,410	26,433	
	Cumulative Total Charges			51,108	95,934	196,814	297,694	386,119	434,479	463,372	497,559	520,819	564,228	590,661	

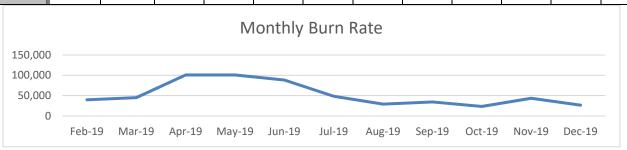


Exhibit B
Fee Schedule – Amendment 1

Task #	Task Name	Wood Inc. 2018 Estimated Budget (\$)	Proposed Budget Augmentation	Wood Inc. Amendment 1 Estimated Budget
	Total Effort (hours & \$)	\$459,075	\$170,252	\$629,327
1	Project Management; Workplan, and USGS Coordination	\$50,057	\$88,873	\$138,930
1.1	Project Management and Coordination of Task Activities	\$25,557	\$28,873	\$54,430
	Deliverable: Monthly progress report, budget status, and earned value report	\$25,557	\$28,873	\$54,430
	Assumptions: Weekly Team check-in conference calls until December 2019			
1.2	Concise Modeling Workplan - HEC-RAS; SWO; SVIHM; HSPF	\$637	\$10,000	\$10,637
	Deliverable: Technical Memorandum Modeling Workplan	\$637	\$10,000	\$10,637
	Assumptions: 1) The Team will respond to one (1) set of comments compiled by the MCWRA for the workplan. 2) Budget is estimated for one (1) final and one (1) update of the modeling workplan			
1.3	Modeling Coordination with USGS	\$23,863	\$50,000	\$73,863
	Transition from USGS deliverable of the SWO and SVIHM to prepare for scenarios study	\$22,903	\$40,000	\$62,903
	Assumptions: 25 meetings with USGS and MCWRA to discuss/updated model system and required engineering and environmental deliverables.	\$959	\$10,000	\$10,959
2	Meetings - Team Kick-Off and External Coordination	\$30,904	\$867	\$31,771
	Team Kick-Off meeting and Coordination External Meetings	\$30,904	\$867	\$31,771
	Two (2) Project meetings per month for 7 months with stakeholders; environmental consultants; engineering consultants, USGS, and MCWRA	\$28,205	\$867	\$29,072
	Deliverable: Coordination Activities, Meeting Minutes and Action Item Follow up			
	Use of Company Vehicle \$0.535/mile (GSA rate) - 222 miles roundtrip from San Francisco to Salinas. 14 trips (2 meetings per month for 7 months)	\$1,663		\$1,663
	Per Diem for meals and incidental expense @ \$74/day (GSA rate) - up to 14 days	\$1,036		\$1,036
3	Baseline Model	\$177	\$6,449	\$6,626

Exhibit B
Fee Schedule – Amendment 1

Task #	Task Name	Wood Inc. 2018 Estimated Budget (\$)	Proposed Budget Augmentation	Wood Inc. Amendment 1 Estimated Budget
	Baseline Model Run	\$177	\$6,449	\$6,626
	Baseline Model Run	\$177	\$6,449	\$6,626
	Deliverable: Hydrographs depicting results of baseline run and comparison with USGS results	\$0		\$0
4	HEC-RAS Model Incorporation and Implementation (3 runs)	\$44,002	\$8,217	\$52,219
4.1	HEC-RAS Model Incorporation	\$20,155	\$8,217	\$28,372
	Incorporation of the existing HEC-RAS model for the Salinas River into the SVIHM	\$20,155	\$8,217	\$28,372
	Deliverable: Technical Memorandum #1 – Summary of integration approach, results, and benefits.	\$0		\$0
4.2	HEC-RAS Model Runs - Baseline (1 run) + Alternatives (2 runs)	\$23,847	\$0	\$23,847
	HEC-RAS results provide details of water velocity, bottom shear stress, elevation, and width of flow; Fast schedule (for EIR): Utilize HSPF flows for groundwater (infiltration) from SVIHM for HEC-RAS via output file; Model channel/bank details in HEC-RAS.	\$20,970		\$20,970
	Deliverable: Technical Memorandum #1 – Summary of baseline and updated alternatives and hydrology discussions. The Team will respond to comments on two (2) Drafts.	\$1,918		\$1,918
5	Tunnel Only Model System (7 runs)	\$85,750	\$54,016	\$139,766
5.1	Alternative Design Scenarios (3 runs)	\$21,458	\$54,016	\$75,474
	Agency provides hydraulic characteristics of the preliminary tunnel design elements that are coded into SWO Package. Predictive model runs are performed.	\$19,540	\$54,016	\$73,556
	Deliverable: Technical Memorandum #2 – Summary of hydrology discussion. The Team will respond to comments on two (2) Drafts.	\$1,918		\$1,918
5.2	Alternative Operational Scenarios (4 runs)	\$64,292	\$0	\$64,292
	Agency provides hydraulic characteristics of the preliminary tunnel operational descriptions to be modeled.	\$62,374		\$62,374

Exhibit B
Fee Schedule – Amendment 1

Task #	Task Name	Wood Inc. 2018 Estimated Budget (\$)	Proposed Budget Augmentation	Wood Inc. Amendment 1 Estimated Budget
	Deliverable: Technical Memorandum #2 – Summary of hydrology impact discussion. The Team will respond to comments on two (2) Drafts.	\$1,918		\$1,918
6	Tunnel + Spillway Modification Model System (9 runs)	\$122,228	\$3,723	\$125,951
6.1	Alternative Design Scenarios (3 runs)	\$57,659	\$3,723	\$61,382
	Agency provides preliminary spillway modification hydraulic characteristics. Spillway elements are coded into the SWO Package. Predictive model runs are performed.	\$55,741	\$3,723	\$59,464
	Deliverable: Technical Memorandum #3 – Summary of updated design alternatives and hydrology impact discussion. The Team will respond to comments on two (2) Drafts.	\$1,918		\$1,918
6.2	Alternative Operational Scenarios (6 runs)	\$64,569	\$0	\$64,569
	Agency provides preliminary spillway modification hydraulic characteristics. Spillway elements are coded into the SWO Package. Predictive model runs are performed.	\$62,651		\$62,651
	Deliverable: Technical Memorandum #3 – Summary of updated operational alternatives and hydrology impact discussion. The Team will respond to comments on two (2) Drafts.	\$1,918		\$1,918
	Alternative Project Scenario: New Upstream Reservoir - Jerrett Reservoir (1			
7	run)	\$11,267	\$0	\$11,267
	Alternative Operational Scenario (1 run)	\$11,267	\$0	
	Configure and model the upstream Jerrett site. This is not yet part of the USGS SWO package.	\$9,348		\$9,348
	Deliverable: Technical Memorandum #4 – Summary of hydrology discussion. The Team will respond to comments on two (2) Drafts. TM#4 will present results of alternative project scenarios for both Tasks 7 and 8.	\$1,918		\$1,918
8	Alternative Project Scenario: Modification to Nacimiento Outlet Works (1 run)	\$14,321	\$0	\$14,321
	Alternative Operational Scenario (1 run)	\$14,321	\$0	\$14,321

Exhibit B
Fee Schedule – Amendment 1

Task #	Task Name	Wood Inc. 2018 Estimated Budget (\$)	Proposed Budget Augmentation	Wood Inc. Amendment 1 Estimated Budget
	Agency describes the project design and operational scenarios for the modification to Nacimiento outlet works. This is not part of the USGS SWO package.	\$10,484		\$10,484
	Deliverable: Technical Memorandum #4 – Summary hydrology discussion. The Team will respond to comments on two (2) Drafts. TM#4 will present results of alternative project scenarios for both Tasks 7 and 8.	\$1,918		\$1,918
9	Buildout Scenarios: Climate Change / Sea Level Rise / Monterey Pure (4 runs)	\$46,727	\$0	\$46,727
	Climate Change / Buildout Project: Monterey Pure (4 runs)	\$46,727	\$0	\$46,727
	Total of four (4) model runs will be configured and calculated for buildout scenarios in response to climate change and the planned Monterey Pure recycled water project.	\$44,809		\$44,809
	Deliverable: Technical Memorandum #5 – Summary of hydrology discussion. The Team will respond to comments on two (2) Drafts.	\$1,918		\$1,918
10	Configuration of New Downstream Diversion (1 run)	\$29,711	\$0	\$29,711
	Configuration of New Downstream Diversion (1 run)	\$29,711	\$0	\$29,711
	Agency will provide descriptions of downstream diversion facility. One (1) model run will be configured and calculated.	\$27,793		\$27,793
	Deliverable: Technical Memorandum #6 – Summary of hydrology discussion. The Team will respond to comments on two (2) Drafts.	\$1,918		\$1,918
	Contingency Budget for Additional Modeling Needs @ 5.5% of estimate labor			
	efforts	\$23,933	\$8,107	\$32,040
	Contingency Budget for Additional Modeling Needs	\$23,933	\$8,107	\$32,040
	The use of this budget requires additional Agency authorization	\$23,933	\$8,107	\$32,040

Exhibit B
Fee Schedule – Amendment 1

Task #	Task Name	Wood Inc. 2018 Estimated Budget (\$)	Proposed Budget Augmentation	Wood Inc. Amendment 1 Estimated Budget
	Total Labor for Tasks 1 to 1	\$435,142	\$162,145	\$597,287
	Contingency Budge	t \$23,933	\$8,107	\$32,040
	Total Budge	\$459,075	\$170,252	\$629,327