EXHIBIT 2-A

MONTGOMERY & ASSOCIATES
Water Resource Consultants

November 3, 2022

Mr. Jonathan Lear
Monterey Peninsula Water Management District
P.O. Box 85
Monterey, CA 93942-0085

SUBJECT: LETTER PROSOPAL FOR TULARCITOS ASR FEASIBILITY STUDY

Dear Mr. Lear:

Montgomery & Associates (M&A) is pleased to present this letter proposal to the Monterey Peninsula Water Management District (MPWMD) for an initial feasibility study on the potential use of Aquifer Storage and Recovery (ASR) in the Tularcitos Creek subbasin of the Carmel River groundwater basin.

MPWMD currently holds 3 water rights (WR), WR-20808 A, B, and C, which originated with the proposed New Los Padres Dam on the Carmel River. WR-20808 A and C are used to divert water to support the existing Monterey Peninsula ASR Project that injects water diverted from the Carmel River into the Seaside groundwater subbasin. WR-20808 B is the water right to impound water behind the proposed New Los Padres Dam, which might not be built. MPWMD is evaluating several projects – including the Tularcitos ASR Project (the Project) – that would use a portion of the 20808 B water right for alternative water storage through the Petition for Change of Use process. The Project would divert water from the Carmel River at the confluence with Tularcitos Creek at a property owned by California American Water Company (Cal-Am). The water would then be injected into and recovered from ASR wells screened in an unnamed Miocene sandstone unit in the upland portions of the Tularcitos Creek subwatershed that is bound by faults. The proposed diversion site and 3 potential ASR investigation areas are shown on Figure 1.

In 2013 MPWMD contracted with Right On Q, Inc. (ROQ) consultants to perform a preliminary data compilation effort and to develop a reconnaissance level understanding of the region that could later support a full feasibility investigation of the Project. This initial Phase 1 work was started but not completed due to budgetary constraints. Completed Phase 1 tasks included a data compilation and inventory from multiple sources including geologic maps, relevant technical reports, well logs, water quality reports, well test results, and streamflow records; the development of Microsoft Access database of existing well and boring records; and the beginnings of GIS database of project information.

Between 2014 and 2021, MPWMD worked with the U.S. Geological Survey (USGS) and a consultant team that included ROQ to develop the Carmel River Basin Hydrologic Model (CRBHM) using the USGS Groundwater Surface Water Flow (GSFLOW) model. GSFLOW is a coupled Groundwater and Surface-water flow model based on the integration of the USGS Precipitation-Runoff Modeling System (PRMS) and the USGS Modular Groundwater Flow Model (MODFLOW). The goal of the CRHBM is to help evaluate hydrologic effects on the Carmel River Basin related to changes in water supply, groundwater pumping, and climate change. The CRBHM covers the entire Carmel River watershed and groundwater basin and is calibrated to a 25-year period with daily records of rainfall, temperature, evapotranspiration, runoff, groundwater elevations, and diversions in the basin (MPWMD *et al.*, 2022).

M&A understands that as part of the preliminary project feasibility evaluation, MPWMD would like to use the CRBHM to simulate several different possible project configurations to evaluate ASR feasibility and potential project sizing in the area of interest. The model-based evaluations will complement other hydrogeological data analysis and synthesis tasks that include the following:

- Developing a preliminary water budget for the area of interest
- Analyzing the availability of Carmel River water for ASR diversion
- Developing a hydrogeological framework and cross sections of the area of interest
- Selecting hydrogeologic units and sites for further analysis and field testing if preliminary screening indicates potential project feasibility

These tasks are described more fully in the scope of work below.

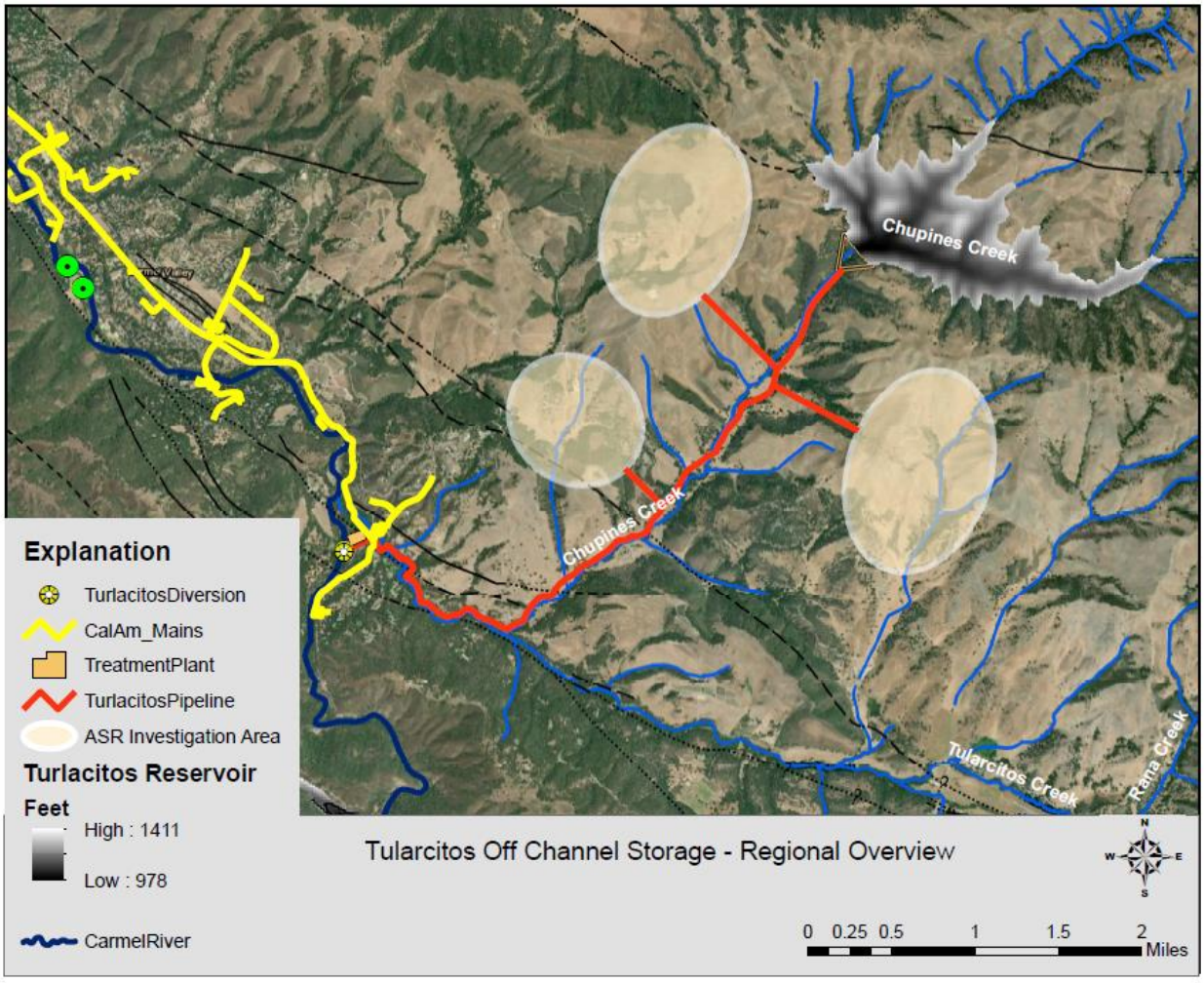

Figure 1. Proposed Potential ASR Investigation Areas (MPWMD, 2020)

SCOPE OF WORK

Task 1: Kick-Off Meeting, Data Transfer, Inventory, and Review

M&A will attend a kick-off meeting with MPWMD staff to review the project goals and tasks, establish preliminary criteria for evaluating initial ASR project feasibility, and coordinate transfer of existing project data previously compiled as part of earlier investigations by MPWMD and other consultants. These data will include the data assembled as part of the Phase 1 scope of work completed by ROQ consultants in 2013 and subsequent work conducted by MPWMD and the consultant team in the development of the CRBHM, including geologic maps, relevant technical reports, water quality reports, well test pumping data, streamflow records, MS Access database, and GIS databases. M&A will review all relevant data and reports and will develop an updated data inventory and combined GIS database. M&A will prepare summary notes of the kick-off meeting and the data transferred.

Task 2: Summarize existing land uses, well production, water rights

In support of evaluating water sources and demand in the project area, M&A will investigate and summarize all water rights, water use patterns and land uses associated with the area of interest. M&A will develop a preliminary water budget for the area of interest by processing and analyzing output of the calibrated CRBHM historical model using the USGS MODFLOW ZoneBudget tools.

Task 3: Describe basin surface water hydrology and availability of Carmel River diversions for ASR

M&A will develop a description of the surface water hydrology of the basin and will assess the availability of Carmel River water for ASR diversions by analyzing historic flow records at existing diversion points associated with permit WR-20808 B. The streamflow and stream diversion analysis will be developed for daily data, and summarized into monthly and annual totals. The annual summaries will be classified by Carmel River water year type.

Assumptions:

- MPWMD will provide daily historical streamflow records in digital format and will provide detailed guidance on diversion criteria such as diversion seasons and/or minimum instream flow requirements.

Task 4: Develop hydrogeologic framework with maps and cross sections

M&A will synthesize the available hydrogeologic data collected from previous investigations and studies to produce hydrogeologic maps and cross sections of the area of interest. This hydrogeologic framework will be used to evaluate the amount of potential underground storage available and to identify target units for ASR injection wells. In Task 6, this framework will be compared against the regional hydrogeologic framework developed for the CRBHM.

Assumptions:

- One hydrogeologic map and up to 3 cross sections will be developed.
- Cross sections will be developed by integrating land surface topography from the digital elevation model, subsurface projection of geology from surface mappings based on mapped strike and dip information of sedimentary units, and incorporation of boring logs and other available data.

Task 5: Evaluate ASR potential based on current hydrogeologic understanding using CRBHM modeling

M&A will perform a sensitivity analysis of the number of ASR wells, location of ASR wells, and volume of injected water using the District's CRBHM to investigate the feasibility and potential size of an ASR project in the area of interest.

ASR feasibility and potential will be evaluated based on the following proposed criteria:

- The formation has capacity to accommodate the injected water volumes without groundwater levels rising above ground level (or some other pre-determined depth below ground level).
- The injected water stays in the vicinity of the ASR wells for a long enough time that it can be recovered by the ASR wells (or alternately by downstream recovery wells); or alternatively, even if injected water moves down gradient, the increased water levels remain high enough for a sufficiently long time that an equivalent volume of native groundwater can be recovered by the ASR wells.
- The number of wells needed to inject required volumes would not be prohibitively expensive.
- Other feasibility criteria – such as potential slope stability issues or downstream impacts of increased ASR diversion on Carmel River streamflows – can be evaluated in the next phase of work.

The timing and volumes of potential ASR diversion and injection will vary seasonally depending on precipitation and streamflow and will change from year to year depending on hydrologic conditions. Maximum volumes of ASR diversion and injection would be expected during very wet years when groundwater levels are highest, which could also create maximum mounding from ASR injection. The feasibility analysis simulations should then consider the hydraulic response of ASR injection under a range of varying hydrologic conditions that will capture a range of potential site conditions.

M&A will develop a baseline scenario with input from MPWMD based on projected future pumping and hydrologic conditions. For this initial screening level analysis M&A proposes that the projected climate will be based on repeating the historical climate inputs (precipitation, temperature, and streamflow). Climate change projections can be incorporated into an updated baseline scenario in future phases of work. The baseline simulation will be used to determine expected seasonal water levels without the ASR project and serve as the basis for evaluating the hydraulic response due to ASR injection and for defining the water level criteria to be evaluated.

The modeling incorporates various assumptions:

- The effort needed for M&A staff to familiarize themselves with running the CRBHM is part of a separate existing scope of work associated with updating the CRBHM
- No additional model update or calibration will be performed as part of this scope of work.
- The hydrological and climatological inputs for the GSFLOW simulations will be based on repeating the historical climate time series of rainfall and temperature used in the existing calibrated historical model as developed by the USGS.
- M&A will work with MPWMD to develop projected future pumping schedules that include pumping at existing production wells, and injection and recovery of ASR water at the proposed ASR sites. The baseline simulation's purpose is only to review operations under a range of hydrologic conditions, and therefore M&A proposes that the future municipal and rural pumping be based on repeating the pumping from the calibrated historical model period.
- Simulated operations of the Los Padres Reservoir will be repeat operations simulated in the calibrated historical model.
- Potential ASR wellfield sites will be evaluated at each of the 3 areas of interest shown on Figure 1, separately.
- Up to 2 different combinations of total number of ASR wells and ASR injection rates per well will be evaluated at each wellfield site.
- For this high-level feasibility evaluation M&A will not incorporate the projected ASR stream diversion into the model streamflow routing package or evaluate the potential impacts of the additional[1] ASR diversions on the streamflows downgradient of the Diversion site. Impacts on streamflow can be evaluated in the next phase of evaluation if the initial feasibility study shows that there is good ASR potential.

Modeling Outputs:

- Hydrographs of simulated water level (or depth-to-water) at each simulated well field for baseline each ASR scenario
- Representative head contour (or change in head) maps
- Maximum mounding for each scenario

[1] "Additional" relative to the existing Carmel River ASR diversions that are part of the Seaside ASR program.

Task 6: Evaluate Limitations & Uncertainty associated with CRHBM Hydrogeological Framework & Calibration

The hydrogeological framework developed for use in the CRBHM, as well as the CRBHM calibration process, was based on specific modeling objectives, data sources, and assumptions, and was geared primarily toward representing water levels in the alluvial aquifer and streamflows in the lower reaches of the Carmel River during low flow conditions.

M&A understands that the CRBHM was calibrated with a greater priority on groundwater levels from wells in the alluvial deposits close to the Carmel River–and to matching downstream Carmel River streamflows during low flow periods–rather than to matching non-alluvial groundwater levels in the upland areas of the basin. M&A also notes that the proposed ASR areas are in an upland region of the basin where there are very few wells and limited or no calibration data for the CRBHM.

Based on M&A's preliminary review of the CRHBM documentation, the source of lithologic groupings for the hydrogeological framework model used in CRBHM appears to have been based on the generalized state-wide geology map of Ludington *et al*. (2007) which combines all the Miocene marine formations into a single grouping, rather than the more localized county-scale geological maps (such as those prepared by Dibblee & Minch, 2007) that map out individual Miocene units including the Santa Margarita Sandstone, Monterey Formation Shale, and the unnamed marine sandstone cited as the target aquifer for ASR. From the draft documentation report, it is not immediately clear if or how the differences between Miocene units or the stratigraphic dip of the Miocene units are represented in the CRBHM hydrogeologic framework. There are limitations and uncertainties associated with using the CRBHM as the only means of evaluating the feasibility of an ASR project at the specific areas of interest. For example, if the model construction and calibration was not sensitive to the specific spatial distribution of hydraulic properties representative of Monterey Shale versus Miocene sandstone in the upland areas, then the simulated hydraulic response at potential sites could be very different and not representative of the expected response.

M&A understands that one of the reasons for choosing the unnamed Miocene sandstone as potential target for ASR injection is because it is potentially bounded by faults. M&A notes that the hydrogeologic framework described in the CRBHM documentation does not mention what hydrogeological role, if any, the numerous regional faults that run parallel to the valley axis play, or if they are represented in the model. It is possible that the faults may play a very limited role in the shallow alluvial aquifer and would thus not greatly affect the current model calibration but could potentially play a larger role in the hydrogeology of the deeper Miocene unit aquifers.

M&A will review the CRBHM model construction and calibration and compare it to the hydrogeological framework developed in Task 4 to provide a qualitative evaluation of the

limitations and sources of potential uncertainty in the results of the model simulations conducted in Task 5.

To help bracket the possible range of uncertainty in the CRBHM, M&A will perform non-model-based calculations using analytical equations for the hydraulic response to injection under a range of parameters (including the values used in the model). By using upper and lower bounds of possible aquifer parameters representative of the target aquifer these calculations will provide an upper and lower bound of possible hydraulic responses to supplement the hydraulic responses simulated in the CRBHM.

Task 7: Select hydrogeologic units and sites for further analysis/ field testing

If Tasks 5 & 6 show that an ASR project may be feasible, M&A will identify areas where field testing should take place to investigate site specific hydrogeologic conditions. M&A will also suggest a testing program to assess the ASR program as the next phase of this program.

M&A notes that the currently proposed ASR investigation areas shown on Figure 1 include areas that have been mapped as being at high risk for deep-seated landslides by both Monterey County (2018) and the California Geological Survey (2015) due to the combination of steep slopes and rock types. A geotechnical evaluation will likely also be a necessary component of any future analysis to understand the potential increase in landslide risk associated with the increased groundwater levels and pore pressures that would develop due to ASR injection operations. This may be especially important as maximum ASR injection would occur during the wettest periods of wettest years, when landslide risks would already be higher.

Task 8: Prepare a report summarizing work and conclusions related to previous tasks and Phase 2 work

M&A will prepare a report summarizing all work completed, and if ASR is found feasible, suggesting a field work plan and additional modeling that would be the next phase of the project.

STAFFING PLAN

Staffan Schorr, Principal Hydrogeologist at M&A with extensive experience in groundwater flow modeling and development of conceptual hydrogeologic models, will serve as project manager; and Pascual Benito, Ph.D., will oversee the work as technical lead. Pascual is an experienced hydrogeologist who is currently supporting the Pure Water Monterey indirect potable reuse project and as-needed hydrogeological services for the Seaside Basin Watermaster. He has also provided modeling support for the Salinas and Pajaro Valley Groundwater Sustainability Plans. Pascual will be supported by a junior level hydrogeologist, and Cameron Tana, P.E., will provide senior review and GSFLOW modeling technical expertise. Derrik Williams, P.G. will serve as senior technical advisor.

BUDGET & SCHEDULE

The total estimated cost for all the above-described tasks is $119,200. The attached cost estimate, shown in Table 1, provides a breakdown of costs by task and subtask. Work will begin with the kick-off meeting after contracting is finalized and is expected to be completed within a 6-month period. Please feel free to contact us with any questions about the proposed scope of work and budgets.

Sincerely,
MONTGOMERY & ASSOCIATES

Staffan Schorr
Principal Hydrogeologist

Pascual Benito
Senior Hydrogeologist

REFERENCES

California Geological Survey, 2015. *Landslide Inventory and Deep Landslide Susceptibility Map.* Online web map. Accessed October 3, 2022. https://maps.conservation.ca.gov/cgs/lsi/

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Monterey County, 2018. *Geologic Hazards Map for Monterey County.* Online web map, updated February 5, 2018. Accessed October 3, 2022. https://montereyco.maps.arcgis.com/apps/webappviewer/index.html?id=80aadc38518a45889751e97546ca5c53

Monterey Peninsula Water Management District (MPMWD), 2020. Steps toward licensing of Carmel River water rights Permits 20808A and 20808C and making a petition for extension of time to show beneficial use for 20808B to the State Water Resources Control Board, MPWMD Technical Memorandum 2020-01, July 1, 2020.

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Table 1. Proposed Cost Estimate

MPWMD: Turlacitos ASR Feasibility Study	Montgomery & Associates Estimate of Hours, Fees and Expenses										
	Scientist VIII	Scientist VII	Scientist VI	Scientist V	Scientist III	GIS II	Editor	Total Hours	Total Prof. Fees	Expenses	Total Estimated Fees & Expenses
	DW	CT	SS	PB	PW						
2022 Professional Billing Rates	$283	$265	$240	$211	$165	$149	$82				
Task 1. Kick-Off Meeting and Data Transfer & Inventory											
1 - Attend Kickoff Meeting	1	1	2	2	0	0	0	6	$1,500		$1,500
2 - Review data and tabulate data inventory, create combined GIS database	0	0	1	16	16	16	0	49	$8,600	$100	$8,700
Subtotal	1	1	3	18	16	16	0	55	$10,100	$100	$10,200
Task 2. Summarize existing land uses, well production, water rights											
1 - Summarize land use well production and water rights	0	0	1	4	4	4	0	13	$2,300		$2,300
2 - Develop Preliminary Water Budget from Baseline Historical Model Simulation	0	1	1	8	24	4	0	38	$6,700		$6,700
Subtotal	0	1	2	12	28	8	0	51	$9,000	$0	$9,000
Task 3. Carmel River Water Diversion Availability Analysis											
1 - Describe basin hydrology	0	0	0	4	8	0	0	12	$2,200		$2,200
2 - ASR diversion availability analysis of historical hydrology data	0	0	1	4	16	0	0	21	$3,700		$3,700
Subtotal	0	0	1	8	24	0	0	33	$5,900	$0	$5,900
Task 4. Develop hydrogeological framework with maps and cross sections											
1 - Review & synthesize hydrogeological data, develop map and up to 3 XS's	1	0	2	24	32	32	0	91	$15,900		$15,900
Subtotal	1	0	2	24	32	32	0	91	$15,900	$0	$15,900
Task 5. Evaluate ASR potential using CRBHM modeling											
1 - Develop baseline scenario	0	0	1	8	8	0	0	17	$3,200		$3,200
2 - Develop & Run ASR Scenarios	0	1	2	24	40	0	0	67	$12,400		$12,400
3 - Process and Analyze Baseline and Scenario Results	0	1	2	24	40	8	0	75	$13,600	$0	$13,600
Subtotal	0	2	5	56	88	8	0	159	$29,200	$0	$29,200
Task 6. Evaluate Limitations & Uncertainty associated with CRHBM Simulations											
1 - Compare Hydrogeologic Frameworks & Local Parameter Calibration	1	2	2	16	24	8	0	53	$9,800		$9,800
2 - Analytic Calculations of upper and lower bound hydraulic response	0	2	2	16	32	0	0	52	$9,700		$9,700
Subtotal	1	4	4	32	56	8	0	105	$19,500	$0	$19,500
Task 7. Select hydrogeologic units and sites for further analysis/ field testing											
1 - Select target units and sites for further analysis & testing	1	1	2	8	4	4	0	20	$4,000		$4,000
Subtotal	1	1	2	8	4	4	0	20	$4,000	$0	$4,000
Task 8. Prepare a report summarizing work and conclusions related to previous tasks and Phase 2 work											
1 - Prepare Draft Report and 1 Set of Revisions based on MPWMD review	4	4	8	40	48	24	16	144	$25,400	$100	$25,500
Subtotal	4	4	8	40	48	24	16	144	$25,400	$100	$25,500
Total (hours)	**8**	**13**	**27**	**198**	**296**	**100**	**16**	**658**			
Total ($)	**$2,264**	**$3,445**	**$6,480**	**$41,778**	**$48,840**	**$14,900**	**$1,312**		**$119,000**	**$200**	**$119,200**