

the continuous monitoring station. The site should be selected in the deepest area of the estuary where potential to capture hypoxia is maximized, while accounting for the need for the site to be accessible and minimize potential vandalization. Data sondes will be deployed on a moored buoy or stationary structure (piling, post, etc.). The sonde should be deployed at the bottom of the water column approximately 0.5 m above the sediment. The location of the continuous monitoring station should be recorded with a GPS unit.

The following parameters will be continuously monitored at each site: temperature, conductivity, dissolved oxygen, pH, turbidity, and chlorophyll fluorescence (to assess phytoplankton biomass). These parameters will be measured using *in situ* sensors equipped with data loggers (data sondes) or another moored sensor platform. These data sondes should be programmed to measure parameters every 30 minutes and, with routine maintenance, should be deployed at minimum throughout the growing season to capture development and decay of algal blooms. Data sondes will need to be removed from the water to download the data and for maintenance (removal of biofouling, re-calibration, replace batteries, etc.) approximately once every two or three weeks.

#### **Pre-Deployment Protocol.**

1. In the laboratory, within 2 days of deployment, data sondes should be calibrated according to manufacturer's specifications using commercially available standards. Evaluate condition of the sonde:
  - a. Replace/recharge batteries
  - b. Ensure battery case is sealed
  - c. Ensure probes are clean
  - d. Clean casing and check for damage
  - e. Check wiper functioning
  - f. Check that the data sonde is set up with the correct date and time
  - g. Ensure the sonde has enough available memory for the expected deployment duration
2. Copper tape and wire can be applied to the probes and sonde casing to minimize biofouling (refer to manufacturer's recommendations to minimize fouling).
3. Run a test of the sonde's functionality by programming the sonde to record the required parameters and leaving it in a bucket of water overnight. The following morning, check that the sonde logged all the required constituents and that they fall within the expected range.
4. Program the sonde for unattended sampling at 30-minute intervals. You may start logging in the laboratory or start logging in the field if you have a field computer or the hand-held interface for the sonde.

#### **Deployment Protocol.**

1. Install an anchored mooring with surface float or stationary structure (if the lake is shallow) for the sondes. Sondes may be deployed within an additional structure to prevent theft/vandalism, but the structure must allow flow through to the sonde.
2. If you have not done so in the laboratory, begin the logging program for each sonde.
3. Mount a data sonde 0.5 meters above the sediment.

## **6. Laboratory Processing**

### **6.1. Macroalgae Processing**

All macroalgal biomass samples must be processed within 48 hours of collection, ideally upon returning to the lab or during the workday immediately following field collection (i.e., all samples collected on a Monday should be processed the following Tuesday). One biomass sample will take approximately 30 minutes to 1 hour to process so plan accordingly. It is recommended to have a field and lab processing team.

All biomass samples will need to be cleaned of all mud, bugs, and debris, weighed wet, dried in an oven at 60° C, and then weighed dry. All samples should be kept refrigerated at 4°C in the dark until they are processed (do not freeze). Once samples have a wet and dry weight they can be discarded.

If the amount of biomass in each sub-sample (from the 5 sites along each transect or within each sub-segment), they can be composited into a single sample representative of that segment transect/sub-segment. In this scenario, you will have 3 biomass composites per estuary segment. If the biomass from each sub-sample is large (enough to fill the Ziploc bag), weigh each subsample individually and add 5 subsamples at the end. This will improve accuracy of the weight measurements.

### **6.2. Equipment**

- Data sheet
- Biomass Samples
- Labels
- Weighing Dishes
- Sharpie
- Small wash tub
- Forceps
- Estuarine water or seawater
- Deionized (DI) water
- Gloves
- Salad Spinner

### **6.3. Macroalgal Biomass Lab Protocol**

- Wear gloves
- Take one biomass sample from the refrigerator
- Carefully remove biomass sample from bag and place into small wash tub
- Fill wash tub with seawater
- Let macroalgae float in seawater to gently clean off all mud, insects, and debris. This may take several rinses to remove all non-algae material
- Once clean, dip the algae in DI water to remove the salts

- Weigh out at least 2 grams into the total phosphorus (TP) vial.
- Record that the splits were collected onto the data sheet.
- If samples are to be sent to a contract lab, wrap the vials bubble wrap and prepare for shipment.

#### **Sediment Grain Size Protocol:**

- Tare the balance with nothing on it (make sure it reads 0.00 g)
- Place a weigh dish on the scale and record the dish weight on data sheet (DO NOT RE-TARE THE BALANCE).
- Weigh a series of weigh dishes and record the weights on the data sheets.
- Write the sample ID on the bottom of a weigh dish with the sharpie
- Weigh the remainder of the dried sediment (sediment not used for grinding) into the weigh dishes and record the weight as "total dry weight" on the sediment grain size portion of the table on the data sheets.
- Place the dried sediment into a small 150 mL bottle and fill half to  $\frac{3}{4}$  full with 5% sodium metaphosphate solution (5 grams of sodium phosphate in 1000mL of water).
- Place in sonicator for at least 30min. Be sure that sonicator is filled to the recommended level with tap water.
- After the sample has been sonicated, pour the sediment into a 65mm sieve
- Rinse all sediment from the bottle into the sieve using a squirt bottle filled with DDI water, rinsing out all fine particles from the sieve. Rinse the sediment until the water comes out clear.
- Using a spatula and squirt bottle, remove all sediment from the sieve into the original weigh-dish.
- Place dish in the oven at 60 °C for two to three days until dry.
- Rinse the metal table down so that all the sediment has been cleaned from the table.
- Re-weigh the dish and record the new dry weight on the data sheets as "Sand weight".
- Re-weigh in an hour to make sure the weight has stabilized and record final unchanging weight on the data sheets.
- Discard sediment once final weights are recorded
- The difference between the total dry weight and the sand weight is the weight of the fine-grained sediment. Divide the fine-grained sediment weight by the total weight and multiply by 100 to get Percent Fines.

## 8. Data Interpretation

A framework to assess estuarine condition with respect to eutrophication based on macroalgal biomass has been proposed for California estuaries (Sutula et al. 2017). This assessment framework is a quantitative scheme intended to classify estuarine segments in tiers of ecological condition, from very high to very low, based on risk of potential adverse effects of eutrophication, similar to the construct of a biological condition gradient model. The intent is to provide a decision framework for quantifying the extent to an estuary is supporting beneficial uses with respect to nutrients. The assessment framework is comprised of two elements: 1) conceptual models that define symptoms (indicators) of eutrophication, the adverse effects on estuarine beneficial uses, 2) classification tables that specify magnitude, frequency and duration of macroalgal biomass associated with adverse effects.

Each estuary segment should be classified separately. Figure 7 provides the proposed assessment framework to diagnose eutrophication in seagrass dominated and unvegetated intertidal and subtidal habitats. Bins of biomass are used to categorize an estuarine segment into five categories from very high to very low ecological condition. The moderate category merits management attention, including additional monitoring of fauna to further investigate potential impairment.

Condition Category	Unvegetated	Seagrass
Very Low	$\geq 140$	$\geq 170$
Low	70 to $< 140$	100 to $< 170$
Moderate	30 to $< 70$	75 to $< 100$
High	15 to $< 30$	15 to $\leq 75$
Very High	$\leq 15$	$\leq 15$

Figure 7. Proposed assessment framework to diagnose eutrophication using macroalgae in seagrass dominated and unvegetated intertidal flat and subtidal habitat for California estuaries. Assessment is based on average biomass (grams of dry weight per meter squared) of the two highest consecutive sampling periods if sampled monthly; if sampled bi-monthly, the assessment is based on the maximum segment-averaged biomass from any single sampling event. In habitats in which seagrass beds are distributed into the intertidal zone, the seagrass density is sparse or intermixed with unvegetated habitat, the framework for unvegetated intertidal and shallow subtidal habitat should be employed.

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## Appendix A. Resources for Avoiding Introduction of Invasive Species

The following is an adaptation of an excerpt taken from an EMAP-based Quality Assurance Project Plan developed by the California Department of Fish and Game Aquatic Bioassessment Laboratory (2008).

Organisms of concern in the U.S. include, but may not be limited to, Eurasian watermilfoil (*Myriophyllum spicatum*), New Zealand mud snail (*Potamopyrgus antipodarum*), zebra mussel (*Dreissena polymorpha*), *Myxobolus cerebralis* (the sporozoan parasite that causes salmonid whirling disease), and *Batrachochytrium dendrobatidis* (a chytrid fungus that threatens amphibian populations).

Load the boat on the trailer and inspect the boat, motor, and trailer for evidence of weeds and other macrophytes. Clean the boat, motor, and trailer as completely as possible before leaving the launch site. Inspect all equipment for pieces of macrophyte or other organisms and remove as much as possible before packing the nets for transport. Pack all equipment and supplies in the vehicle and trailer for transport; keep them organized as presented in the equipment checklists (Appendix A). Lastly, be sure to clean up all waste material at the launch site and dispose of or transport it out of the site if a trash can is not available.

Field crews must be aware of regional species of concern and take appropriate precautions to avoid transfer of these species. Crews should make every attempt to be apprised of the most up-to-date information regarding the emergence of new species of concern, as well as new advances in approaches to hygiene and decontamination to prevent the spread of such organisms (e.g., Hosea and Finlayson, 2005; Schisler et al., 2008).

There are several online resources regarding invasive species, including information on cleaning and disinfecting gear:

Whirling Disease Foundation  
[www.whirling-disease.org](http://www.whirling-disease.org)

USDA Forest Service - Preventing Accidental Introductions of Freshwater Invasive Species  
[www.fs.fed.us/invasivespecies/documents/Aquatic\\_is\\_prevention.pdf](http://www.fs.fed.us/invasivespecies/documents/Aquatic_is_prevention.pdf)

California Department of Fish and Game  
[www.dfg.ca.gov](http://www.dfg.ca.gov)

U.S. Geological Survey Nonindigenous Aquatic Species: general information about freshwater invasive species  
<http://nas.er.usgs.gov>

Protect your Waters - Co-sponsored by the U.S. Fish and Wildlife Service  
[www.protectyourwaters.net/hitchhikers](http://www.protectyourwaters.net/hitchhikers)

The California State Water Resources Control Board Aquatic Invasive Species website  
[www.swrcb.ca.gov/water\\_issues/programs/swamp/ais](http://www.swrcb.ca.gov/water_issues/programs/swamp/ais)



CLERK'S COPY

to Riverside County Clerk of the Board, Stop 1010  
Post Office Box 1147, Riverside, Ca 92502-1147  
Thank you.

MEMORANDUM OF UNDERSTANDING  
BETWEEN  
THE COMMANDING GENERAL, MARINE CORPS INSTALLATIONS WEST-MARINE  
CORPS BASE, CAMP PENDLETON (MCIWEST-MCB CAMPEN)  
AND  
THE CITY OF MURRIETA  
AND  
THE CITY OF TEMECULA  
AND  
THE CITY OF WILDOMAR  
AND  
THE COUNTY OF SAN DIEGO  
AND  
THE COUNTY OF RIVERSIDE  
AND  
THE RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION  
DISTRICT  
FOR  
CONDUCTING A WATER QUALITY IMPROVEMENT MONITORING AND  
ASSESSMENT PROGRAM FOR EUTROPHIC CONDITIONS IN THE SANTA  
MARGARITA RIVER ESTUARY AND WATERSHED IN ACCORDANCE WITH  
INVESTIGATIVE ORDER NO. R9-2019-0007

M02214-20200114-0158

This is a Memorandum of Understanding (MOU) between the Commanding General, MCIWEST-MCB CAMPEN, the City of Murrieta, the City of Temecula, the City of Wildomar, the County of San Diego, the County of Riverside, and the Riverside County Flood Control and Water Conservation District, hereinafter referred to as "Partners".

1. BACKGROUND: The California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) placed the Santa Margarita River Estuary (SMRE) on the Clean Water Act Section 303(d) List of Water Quality Limited Segments in 1986 due to eutrophic conditions. Numerous studies conducted in the SMRE since the listing have determined that the impairment is caused by excessive amounts of total nitrogen and total phosphorus (nutrients) entering the SMRE stimulating algal growth and subsequently eutrophic conditions. As a result of this listing, Total Maximum Daily Loads (TMDLs) are required to be developed by the San Diego Water Board for nutrients at a level necessary to achieve the applicable water quality standards. To this end, in 2006 the San Diego Water Board issued Investigative Order (IO) No. R9-2006-0076 to Municipal Separate Storm Sewer System (MS4) owners within the SMRE watershed to assess the impairment and gather monitoring data necessary to develop TMDLs. The MS4 owners listed in IO No. R9-2006-0076 entered into MOA No. 08-MU-35-0005 to accomplish the required monitoring which confirmed the impairment of the SMRE was due to eutrophication. In 2012, as a follow-on effort to IO No. R9-2006-0076, the San Diego Water Board, MS4 owners, and other stakeholders established the Santa Margarita River Watershed Nutrient Initiative Stakeholder Group (Stakeholder Group) with the purpose of implementing

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supplemental monitoring and special studies to answer key technical questions for the development of site specific Nutrient Numeric Endpoint (NNE) targets for the SMRE. The NNE framework approach for California estuaries developed by the Southern California Coastal Water Research Project (SCCWRP) uses site-specific ecological response variables and benthic community condition scores combined with a weight of evidence approach to more directly and robustly assess beneficial use impairment than relying on nutrient concentrations alone. The San Diego Water Board in collaboration with the Stakeholder Group used the NNE approach to develop numeric targets for the SMRE and published their findings in the July 2018 Draft Staff Report titled *Santa Margarita River Estuary, California Nutrients Total Maximum Daily Load Project*. According to analysis presented in the Draft Staff Report, the enforcement and full implementation of the Region-wide Agricultural Waste Discharge Requirements Order No. R9-2016-0005, the Regional Phase I MS4 Permit Order No. R9-2013-0001 as amended, and the Statewide Phase II MS4 Permit 2013-0001-DWQ as amended, combined with natural attenuation of polluted groundwater, is expected to achieve the load reductions necessary to restore the beneficial uses of the SMRE.

As an alternative to a traditional rule-making TMDL, the San Diego Water Board issued IO No. R9-2019-0007 to the Partners on May 9, 2019 to assess the condition of the SMRE and evaluate the linkage between nutrient loading trends resulting from implementation actions by MS4 owners and the restoration of the water quality and beneficial uses in the SMRE. The Partners, as owners and operators of MS4s within the SMRE watershed are required by IO No. R9-2019-0007 to monitor the SMRE water quality condition for a period of four years starting in 2020 with a final report summarizing the findings due in March 2024.

2. AUTHORITIES: The following authorities are provided for reference purposes.

- a. Title 10, U.S. Code 2539(b) (Availability of samples, drawings, information, equipment, materials, and certain services.)
- b. Clean Water Act, Title 33, U.S. Code 1323.
- c. DoD Instruction 4000.19, Support Agreements, 25 April 2013.

3. PURPOSE: This MOU documents the Partners' intentions to collaborate and share costs associated with conducting a water quality improvement monitoring and assessment program in coordination with Naval Information Warfare Center Pacific (NIWC-PAC) for eutrophic conditions in the SMRE (SMRE Monitoring Program) as required by IO No. R9-2019-0007.

4. UNDERSTANDINGS OF THE PARTNERS:

4.1. The Partners intend for NIWC-PAC to implement the SMRE Monitoring Program in coordination with and/or on behalf of the Partners in compliance with requirements prescribed in IO No. R9-2019-0007, Monitoring and Assessment Work Plan, and Quality Assurance Project Plan. The Partner's understand that NIWC-PAC has specialized skills in aquatic sampling, extensive knowledge of the estuary biology and experience with conducting chemical and biological monitoring in the SMRE over the last decade. The roles of all Partners and NIWC-PAC



will be in accordance with Section 4 of the Final Quality Assurance Project Plan for Santa Margarita River Estuary and Watershed Monitoring and Assessment Program.

4.2. The Partners understand that separate funding agreements will need to be coordinated with NIWC-PAC in order to fulfill the purposes of this MOU. Accordingly, MCIWEST-MCB CAMPEN intends to coordinate with NIWC-PAC in completing Fiscal Form 7600A, United States Government General Terms & Conditions (GT&C). The remaining Partners intend to coordinate with NIWC-PAC in completing Cooperative Support Agreements; these agreements will be provided by NIWC-PAC to the Partners. Riverside County Flood Control and Water Conservation District, will enter into such agreement with NIWC-PAC on behalf of the County of Riverside, City of Murrieta, City of Temecula, City of Wildomar, and Riverside County Flood Control and Water Conservation District.

4.3. The Partners understand that if one or more Partners do not fulfill their funding agreements with NIWC-PAC, then required work may be delayed and/or proportionately reduced until funding is received.

4.4. The Partners intend to collaborate and share costs required to manage and implement the SMRE Monitoring Program. The Partners will designate representatives to serve as points of contact for decision making and planning related to the SMRE Monitoring Program. The Partners' representatives will participate in the oversight of the SMRE Monitoring Program, attend meetings, develop strategies, and review draft work plans, technical data and draft monitoring reports.

4.5. The Partners understand that the estimated costs of the SMRE Monitoring Program are as follows:

Cost Share Partner	FY 2020 <sup>1</sup>	FY 2021	FY 2022	FY 2023	FY 2024	Totals	
MCIWEST- MCB CAMPEN	<i>Administration</i>	\$6,795	\$15,901	\$16,031	\$16,642	\$17,893	\$73,262
	<i>River Station</i>	\$37,500	\$38,635	\$39,774	\$40,917	\$5,000	\$161,826
	<i>Groundwater</i>	\$56,800	\$58,286	\$59,789	\$61,893	\$0	\$236,768
	<i>Estuary (2.74%)<sup>2</sup></i>	\$3,877	\$3,829	\$3,944	\$4,062	\$0	\$15,712
	<b>Total</b>	\$104,972	\$116,651	\$119,538	\$123,514	\$22,893	\$487,568
County of San Diego <sup>3</sup>	\$22,334	\$32,165	\$32,748	\$33,872	\$19,682	\$140,801	
Riverside Co-permittees <sup>3</sup> : City of Murrieta City of Temecula City of Wildomar County of Riverside Riverside County Flood Control and Water Conservation District	\$173,899	\$222,270	\$227,030	\$234,548	\$98,413	\$956,161	
<b>Total</b>	\$301,205	\$371,086	\$379,316	\$391,934	\$140,988	\$1,584,530	

4.6. The Partners understand that any and all work, data, and documents produced in cooperation for compliance with the requirements prescribed in the IO, including originals prepared by anyone in connection with or pertaining to the work under this MOU, shall become the property in whole and in part of all Partners, jointly and severally.

4.6.1. The Partners will implement an agreed upon quality control and quality assurance process for the release of monitoring data amongst the Partners. The Partners understand that data shall be released in a timely manner under an agreed upon schedule to accommodate compliance reporting and data upload requirements.

4.6.2. The Partners understand that if one or more Partners do not fulfil their obligation to produce or make available the required monitoring data necessary to fulfill the assessment for compliance reporting in a timely manner that said data may not be included in compliance reporting in order to meet the regulatory deadlines.

<sup>1</sup> FY is the United States Federal Government's Fiscal Year from October 1 through September 30. For example: FY2020 is between October 1, 2019 and September 30, 2020.

<sup>2</sup> MCIWEST-MCB CAMPEN is responsible for 2.74% of the total estuary monitoring cost based on land use.

<sup>3</sup> County of San Diego and Riverside Co-permittee costs do not include their Santa Margarita River station monitoring costs since they will fund and execute it separately from the MOU.

4.7. Any Partner found in non-compliance by the San Diego Water Board with conditions of the IO within its jurisdictional boundaries shall be solely liable for any enforcement actions and assessed penalties.

4.8. The Draft Staff Report (table 10 and figure 14) shows that discharges from commercial agriculture are the largest sources of dry-weather nutrient loads to the SMRE. The partners understand that commercial agricultural operations are regulated by the San Diego Water Board through Order No. R9-2016-0004 and Order No. R9-2016-0005. Addressing eutrophic conditions is a problem requiring a collaborative approach that includes management of all activities in the shared space of the SMRE watershed that potentially contribute excess nutrients to include commercial agriculture operations. Exchanging and integrating information will benefit all parties with the common goal of protecting beneficial uses in the SMRE watershed.

## 5. PERSONNEL:

5.1. RESPONSIBILITIES: All partners are responsible for costs of personnel including pay benefits, support, and travel. Each Partner is responsible for supervision, management and safety of its personnel.

5.2. ACCESS: Each Partner will provide and coordinate access to property and locations required to perform work, in advance to the targeted start date of work. Personnel granted access are required to follow access guidance and restrictions of the respective Partner.

## 6. GENERAL PROVISIONS:

6.1 POINTS OF CONTACT: The following points of contact (POC) will be used by the Partners to communicate in the implementation of this MOU. Each Partner may change its POC upon reasonable notice to the other Partners.

6.1.1. For the Commanding General, MCIWEST-MCB CAMPEN:

6.1.1.1. Primary POC: Mr. Mark Bonsavage, Engineering Branch Head, 760-725-9753.

6.1.1.2. Alternate POC: Mr. Matthew Winterbourne, Water Quality Section Head, 760-725-0141.

6.1.2. For the City of Murrieta:

6.1.2.1. Primary POC: Ms. Mai Son, Associate Engineer, 951-461-6085.

6.1.2.2. Alternate POC: Mr. Bob Moehling, Public Works Director / City Engineer, 951-461-6036.

6.1.3. For the City of Temecula:

6.1.3.1. Primary POC: Mr. Stuart Kuhn, Associate Engineer, 951-308-6387.

6.1.3.2. Alternate POC: Mr. Patrick Thomas, Director of Public Works, 951-506-5163.

6.1.4. For the City of Wildomar:

6.1.4.1. Primary POC: Mr. Dan York, Assistant City Manager, 951-677-7751 x 216.

6.1.4.2. Alternate POC: Mr. Jason Farag, Associate Engineer, 951-677-7751 x 219.

6.1.5. For the County of San Diego:

6.1.5.1. Primary POC: Ms. Jo Ann Weber, Planning Manager, 858-495-5317.

6.1.5.2. Alternate POC: Ms. Brianna Martin, Land Use Environmental Planner II, 858-495-5333.

6.1.6. For the County of Riverside:

6.1.6.1. Primary POC: Ms. Rania Odenbaugh, Principal Management -Analyst, 951-955-1110.

6.1.6.2. Alternate POC: Ms. Jan Bulinski, NPDES Coordinator, 951-955-6859.

6.1.7. For the Riverside County Flood Control and Water Conservation District:

6.1.7.1. Primary POC: Mr. Richard Boon, Chief of Watershed Protection Division, 951-955-1273.

6.1.7.2. Alternate POC: Mr. Matt Yeager, Watershed Program Manager, 951-955-0843.

6.1.7.3. Alternate POC: Ms. Rebekah Guill, Watershed Monitoring Program Manager, 951-955-2901.

6.2. CORRESPONDENCE: All correspondence to be sent and notices to be given pursuant to this MOU will be addressed, if to the Commanding Officer, to:

6.2.1. Mr. Mark Bonsavage  
Environmental Engineering Branch  
Environmental Security Department  
MCIWEST-Marine Corps Base Camp Pendleton (Bldg. 22165)  
Box 555008  
Camp Pendleton, CA 92055-5008

And, if to the City of Murrieta, to:

6.2.2. Ms. Mai Son  
City of Murrieta  
Public Works/Engineering Department  
1 Town Square  
Murrieta, Ca 92562

And, if to the City of Temecula, to:

6.2.3. Mr. Stuart Kuhn  
City of Temecula  
Public Works Department  
41000 Main Street  
Temecula, Ca 92590

And, if to the City of Wildomar, to:

6.2.4. Attn: Dan York  
City of Wildomar  
23873 Clinton Keith Rd., Suite 201  
Wildomar, Ca 92595

And, if to the County of San Diego, to:

6.2.5. Ms. Jo Ann Weber  
County of San Diego  
5510 Overland Avenue, Ste. 410  
San Diego, Ca 92123-5263

And, if to the County of Riverside, to:

6.2.6. Ms. Rania Odenbaugh  
County of Riverside Executive Office  
4080 Lemon Street, 4<sup>th</sup> Floor  
Riverside, Ca 92501

And, if to the Riverside County Flood Control and Water Conservation District to:

6.2.7. Mr. Richard Boon  
Riverside County Flood Control and Water Conservation District  
1995 Market Street  
Riverside, Ca 92501

Or as may from time to time otherwise be directed by the Partners.

6.3. FUNDS AND MANPOWER: This MOU does not document nor provide for the exchange of funds or manpower between the Partners nor does it make any commitment of funds or resources. Separate agreements will be coordinated with NIWC-PAC.

6.4. MODIFICATION OF MOU: This MOU may only be modified by the written agreement of the Partners, duly signed by their authorized representatives.

6.5. DISPUTES: Any disputes relating to this MOU will, subject to any applicable law, Executive Order, Directive, or Instruction, be resolved by consultation between the Partners or in accordance with DODI 4000.19.

6.6. TERMINATION OF AGREEMENT: This MOU may be terminated in writing at will by any Partner.

6.7. TRANSFERABILITY: This MOU is not transferable except with the written consent of the Partners.

6.8. SCOPE OF MOU: It is expressly understood and agreed that this MOU is made preparatory and contingent on the Partners entering into separate agreement with NIWC-PAC. Accordingly, this MOU embodies the entire agreement between the partners in contemplation of this effort.

6.9. EFFECTIVE DATE: This MOU takes effect beginning on the day after the last Partner signs.

6.10. COUNTERPARTS: This MOU may be executed in counterparts, with the same force and effect as if executed in a single, complete document. For purposes of this MOU, a facsimile or Portable Document Format ("PDF") execution shall be considered as the equivalent of a wet ink signature, shall be deemed good and valid acceptance of this MOU, and shall be reasonably relied upon by all Partners.

6.11. EXPIRATION DATE: This MOU expires on June 30, 2025.

APPROVED:

For the Commanding General, MCIWEST-MCB CAMPEN –

\_\_\_\_\_  
J. S. PAULL  
Director, Environmental Security  
By direction of the Commanding General  
MCIWEST-MCB CAMPEN

\_\_\_\_\_  
(Date)



For the CITY OF MURRIETA –

---

Dan York  
Assistant City Manager

---

(Date)

For the CITY OF TEMECULA –

---

Patrick Thomas  
Director of Public Works

---

(Date)

For the CITY OF WILDOMAR –

APPROVED AS TO FORM

\_\_\_\_\_  
DUSTIN NIGG  
Mayor

\_\_\_\_\_  
THOMAS D. JEX  
City Attorney

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Date)

ATTEST –

\_\_\_\_\_  
JANET MORALES  
Acting City Clerk

\_\_\_\_\_  
(Date)

For the COUNTY OF SAN DIEGO –

Approved as to Legal Form

\_\_\_\_\_  
John M. Pellegrino  
Director, Department of Purchasing



\_\_\_\_\_  
Thomas Deak  
Contracting Senior Deputy Counsel

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Date)

For the COUNTY OF RIVERSIDE --

RECOMMENDED FOR APPROVAL:

By  By   
GEORGE JOHNSON V. MANUEL PEREZ, Chairman  
County Executive Officer Riverside County Board of Supervisors

MAR 10 2020  
(Date)

MAR 10 2020  
(Date)

APPROVED AS TO FORM:

ATTEST:

GREGORY P. PRIAMOS  
County Counsel

KECIA HARPER  
Clerk of the Board

By   
AARON C. GETTIS  
Supervising Deputy County Counsel

By   
Deputy

2/19/20  
(Date)


MAR 10 2020  
(Date)

(SEAL)

For the RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT –

RECOMMENDED FOR APPROVAL:

By   
 JASON E. UHLEY  
 General Manager-Chief Engineer

By   
 KAREN SPIEGEL, Chairwoman  
 Riverside County Flood Control and Water  
 Conservation District Board of Supervisors

11 Feb 2020

(Date)

MAR 10 2020


(Date)

APPROVED AS TO FORM:

GREGORY P. PRIAMOS  
 County Counsel

ATTEST:

KECIA HARPER  
 Clerk of the Board

By   
 for MARSHA L. VICTOR  
 Deputy County Counsel

By   
 Deputy

MAR 10 2020

(Date)

(Date)

(SEAL)