STANDARD SERVICES AGREEMENT – EXHIBIT A
SCOPE OF WORK

Task A – CRSMP Development and RSM Tools. This task is to develop a comprehensive guidance and policy document discussing how regional sediment management targeting coastal erosion is to be implemented in an expeditious, cost-effective, and resource-protective manner throughout the region. Elements of the plan include the subtasks below.

1. Compile Relevant Coastal References and Sediment Information – The M&N Team (Team) will compile references used to summarize information on coastal resources (including sensitive biological resources and other data) in the vicinity of proposed sand receiver sites, and sediment information of receiver sites and sources. Work done for the Sand Compatibility and Use Program (SCOUP) will significantly apply to this task.

2. Locate Critical Coastal Erosion Areas (CCEAs) Within the Region – The Team will research existing data of CCEAs provided by the USACE and State, and review previous work in the region and identify their locations along the regional coast in GIS. Again, work in the region will apply directly here and facilitate rapid completion of this task.

3. Identify Potential Sediment Sources Including Harbors, Wetlands, Flood Control Sites, Offshore Areas, and Construction and Highway Projects – Work for the SCOUP and the CSBAT has provided sources that have already been identified and catalogued that will apply directly here. Limited additional research will occur to update the previous inventories.

4. Compile Available and Appropriate Sediment Quality Data for Beaches and Sources – Previous work on the SCOUP and CSBAT will help immensely and form the basis of this data base. Limited additional research will occur to update existing inventory.

5. Identify Innovative Technologies – The Team will conduct an internal workshop to brainstorm strategies to restore sand to beaches without use of upland sources. The Team will consider constraints and opportunities associated with discussed technologies, drawing upon experience gained from participating in preparation of documentation for the SANDAG Sand Retention Strategy Project, 2001 San Diego Regional Beach Sand Project, the SCOUP project, CSBAT, and Biological Impact Study for the CSMW. Outside experts, such as Dr. Craig Everts, will be consulted for advice without budget being provided for their participation. The Team will use the Regional Sand Retention Strategy as a starting point and will attempt to develop a limited amount of relevant new information, but this effort will be constrained by existing task budget constraints.

6. Determine the Economic Feasibility of Removal, Transport, and Placement of Potential Source Materials – The Team will investigate the economic feasibility of removal, transport, and placement of potential source materials. EIC will lead this task on behalf of the Team. The CSBAT model developed previously by EIC will be used as the primary tool for this

task. CSBAT will be used to analyze up to 12 scenarios involving various combinations of sediment sources and receiver sites as well as different transportation options (e.g., truck hauling and hydraulic dredging pipeline). The CSBAT model will be used to calculate the costs associated with removing sediment from potential source sites (Oceanside Harbor, Mission Bay, SANDAG RBSP offshore sites, several debris basins, Batiquitos Lagoon, San Elijo Lagoon, and Buena Vista Lagoon) as well as transporting and placing it at receiver sites (Oceanside Beach, Carlsbad Beach, Moonlight Beach, Fletcher Cove Beach, Del Mar Beach, Torrey Pines Beach, Mission Beach, and Imperial Beach). CSBAT will also be used to estimate the economic benefits associated with the placement of various volumes of sediment at the different receiver sites. The final outcome of this task will be the formulation of several sand nourishment scenarios that can be used to develop the final set of alternatives that will be included in the Plan.

7. Collate Available Data of Physical and Chemical Sediment Compatibility – Existing data of the compatibility of sand sources and receiver sites, stockpile sites, transport routes, placement options, and generalized protocols will be compiled as generated from the SCOUP, Opportunistic Beach Fill Programs, and the CSBAT.

8. Assess and Geo-reference Critical Species and Habitats – The Team will develop a Geographic Information System (GIS) format for sensitive species and habitats complementary to existing CSMW GIS tools. Spreadsheets will be produced that summarize available information on sensitive biological resources in the vicinity of and downdrift from potential coastal sand source and receiver sites addressed in the plan. The tables will address sensitive resource occurrence by distance intervals from the potential restoration sites. The biological checklists developed by SAIC staff for the SCOUP will be used as a template for summarizing biological resource information. SAIC will coordinate with the USFWS and U.S. Navy to obtain available geo-referenced data for nesting sites of threatened and endangered bird species, such as California least tern and western snowy plover, and will obtain applicable geo-referenced data on critical habitat from available documentation. It is assumed that SANDAG will provide the Team with GIS layers associated with the Nearshore Mapping Program, which include relevant biological information on nearshore substrate (e.g., reefs) and aquatic vegetation. Additionally, other sources of information will be considered such as the nearshore mapping conducted by the U.S. Navy in 1995, surveys conducted in support of the 2001 San Diego Regional Beach Sand Project, local reef surveys conducted by SAIC in 2006, and Wetlands Recovery Project summaries for coastal lagoons. Measures to protect sensitive biological resources will be included.

9. Identify Data Gaps – The Team will prepare a list of data gaps for sediment character and quality information, and sensitive species and habitats for the project area, note what information is available, and identify what types of information (including specific geo-referenced data) are lacking. Recommendations for filling critical information gaps will be provided. Recommendations will be programmatic according to the type of data gap.

10. Viability of Nearshore Receiver Sites – The Team will conduct another half-day technical workshop addressing nearshore receiver sites in areas of critical sediment deficit. Considerations will include biological constraints and benefits associated with nearshore receiver sites. Measures to protect sensitive biological resources will be generated. As with

previous tasks, we will apply monitoring data from Regional Beach Sand Project to this effort and will attempt to develop a limited amount of relevant new information, but this effort will be constrained by existing task budget constraints.

11. Identify Permitting Requirements – The Team will assess the regulatory process for sediment management. The BRRG and SCOUP documents will be the bases of assessment. Recommendations will be generated with respect to resource agency coordination tailored to the region for the CSMW to streamline the permitting process in environmentally constrained areas. Additionally, the Team will work with local entities to ensure inclusion of all applicable permits and recommend changes to LCPs to facilitate nourishment.

12. Identify Potential Sources of Local and Regional Funding Streams for Incremental Costs Associated with Beneficial use of Sediment across the Region – The Team will identify potential sources of local and regional funding streams to cover the incremental costs associated with beneficial use of sediment across the region. EIC will lead this task on behalf of the Team. Potential sources will include existing funds (e.g., CCC sand impoundment mitigation fees administered by SANDAG) as well as the creation of new funds from existing sources (e.g., transit occupancy taxes). In addition, new ideas (e.g., license fees, grading fees, and storm water fees) for sources of money to develop funding streams will be identified from the PPR Analysis recommendations and from discussions with the California Coastal Coalition and California Shore and Beach Preservation Association. This information will be organized to identify local funds to be administered by local organizations such as coastal cities and lagoon managers (e.g., CDFG for Batiquitos and SDG&E for Agua Hedionda Lagoon) as well as regional funds to be managed by a regional entity such as SANDAG. The final outcome of this task will be the development of a table or matrix that identifies various sources of funds and potential administration arrangements for those funds.

Task B – Outreach. The Team will assist SANDAG to develop and implement a Community Outreach Plan. The Plan will be based on the SANDAG existing method of utilizing its Shoreline Preservation Committee to conduct public meetings and disseminate information. It is assumed SANDAG leads this task with our team's assistance as needed to expand the existing contacts list, attend up to six meetings consisting of three public meetings and three management meetings, contribute to and link existing websites of SANDAG and the CSMW, and generate technical information that SANDAG can use to create brochures. Management meetings are assumed to occur on the same days as Shoreline Preservation Committee meetings to capitalize on opportunities to interact with the Committee, solicit information, and glean local input on certain technical issues.

Task C – Governance Structure. Our Team assumes that SANDAG will lead this task too. We will provide assistance to SANDAG to help:

1. Identify additional stakeholders not presently involved in the SPC meetings;

2. Determine coordination and cooperative agreements (assumes SANDAG enacts them) to implement the CRSMP;

3. Identify jurisdictional agencies, boundaries, and regulatory impediments within the region; and

4. Assess any unique additional local issues that could affect the CRSMP.

Task D - Preparation of a draft and final plan. The Team will prepare a regional sediment management plan that can be used by SANDAG and its member agencies as well as other interested parties to restore and maintain coastal beaches and other critical areas of sediment deficit; reduce the proliferation of protective shoreline structures; sustain recreation and tourism; enhance public safety and access; and restore coastal sandy habitats throughout the San Diego County shoreline area. Upon compilation and integration of the tools and reference material through completion of Task A, the Team will develop a graphic illustration of sediment management within the region under existing conditions based on modification of the schematic regional sediment management graphic contained in the SMP informational brochure. The sand nourishment scenarios developed from Task A6 will be used to prepare an initial set (up to four) of alternative graphic illustrations of regional sediment management for consideration by SANDAG, SANDAG member agencies, and other interested parties (e.g., CSMW, DBAW, SCC, SDG&E, CDFG, SELC, and SCE). The Team will formulate evaluation metrics and criteria for approval by SANDAG via a workshop with SANDAG member agencies and other interested parties. Upon approval, the metrics and criteria will be utilized to evaluate the initial alternatives to identify the best three alternatives to move forward with in the development of the draft plan. The graphic illustrations for these final three alternatives will be enhanced and brief written descriptions will be prepared for these three alternatives. The plan will specify measures to beneficially re-use sediment and protect sensitive biological resources based on consideration of agency approved methods associated with Regional General Permit (RGP) 67, locally approved opportunistic sand programs, measures recommended for SCOUP implementation in San Diego County, and measures reviewed for the CSMW as part of the comprehensive biology impact study. The protective measures will be described in a programmatic format according to sensitive resource type. Cross-reference tables will be prepared that indicate which protective measures are applicable at each of the coastal sand source and receiver sites addressed in the plan based on consideration of available biological resource information and data gaps.

Deliverables: The project deliverables will consist of a draft and final Regional Sediment Management Plan that includes items listed below. Two iterations of the draft (3 draft versions) and one iteration of the final plan (2 final versions) will be provided.

1. List of references of coastal resources and sediment information to be used during performance of this work scope;

2. GIS layer and map product of CCEAs to be used during performance of this work scope;

3. Matrices and geo-referenced information (GIS layers) of sediment sources;

4. Matrices of available sediment quality information of sources and receiver sites, with geo-referenced information (GIS layers) for the CSMW database;

5. Possible concepts for innovative nourishment technologies;

6. Quantified economic feasibility of sediment management options;

7. Matrices and maps of physical and chemical sediment compatibility of source and receiver sites, stockpiles, transport routes, and placement options;

8. Spreadsheets and GIS summarizing sensitive habitats and species in vicinity of coastal sand source and receiver sites based on existing information from available information sources; geo-referenced data on sensitive species such as the western snowy plover critical habitat in San Diego County and others based on information in the Federal Register listing of critical habitat for the species; and geo-referenced data on sensitive bird species (as available) based on SAIC coordination with the USFWS and U.S. Navy;

9. Check-list table of available information and data gaps material characteristics, sources, sensitive species and sensitive habitat types, organized by coastal sand source and receiver sites, and other gaps, and programmatic recommendations for filling critical biological and sediment resource information gaps according to the type of data gap;

10. Recommendations on nearshore receiver sites and possible concept placement areas and technologies;

11. Matrix of permitting requirements as taken from previous-related work;

12. Matrix of funding opportunities;

13. Web site information;

14. Possible identification of cooperative agreements needed within the region for the plan and resolution of impediments to plan implementation; and

15. Possible scenarios/concepts of sediment management and re-use to maximize effects and minimize costs and environmental and social impacts.

STANDARD SERVICES AGREEMENT – EXHIBIT A-1
SCHEDULE

Project Schedule		
Task	**Number of Months**	**Timeline**
Task A	6	Month 0-6
Task B	12	Month 0-12
Task C	3	Month 3-9
Task D	6	Draft Report Month 6-9 Final Report Month 9-12