ENGINEERING AND OPERATIONS COMMITTEE

AGENDA FOR

AUGUST 24, 2006

10:55 a.m. – 12:00 p.m.

Bill Knutson, Chair     Keith Lewinger
Betty Ferguson, Vice Chair    George Loveland
John Johnson, Vice Chair    Ron Morrison
Gary Arant     Ed Rogers
Tom Brammell     Larry Sundram
Gary Croucher     Fred Thompson
Jim Lewanski     Yen Tu


2. Additions to agenda (Government Code Section 54954.2(b)).

3. Public comment – opportunities for members of the public to address the Committee on matters within the Committee’s jurisdiction.

4. Chair’s report.
   4-A Directors’ comments.

I. CONSENT CALENDAR

1. Approve purchase of two replacement 36-inch plunger valves from VAG-Armaturen GmbH for $193,844.
   Staff recommendation: Approve purchase of two replacement 36-inch plunger valves from VAG for $193,844. Water Authority staff will complete installation of the valves as part of the Valve and Venturi Meter Replacement Program. (Action)  
   Stine

2. Construction contract with CDM Construction, Inc. for the San Vicente construction management trailer complex relocation.
   Staff recommendation: Award a construction contract to CDM Construction, Inc., for $785,277 for the San Vicente Construction Management Trailer Complex Relocation project. (Action)  
   Henry
3. **Contract with Celerity Energy LLC licensing use of four standby generators.**
   
   **Staff recommendation:** Approve contract with Celerity Energy LLC (Celerity) allowing Celerity to use, operate, improve, control, and sell power of the four standby generators at Olivenhain Dam, in exchange for Celerity taking responsibility for the maintenance of the generators, subject to the Water Authority’s emergency requirements. (Action)

4. **Notice of completion for the Mission Trails emergency pipeline repairs.**
   
   **Staff recommendation:** Accept the Mission Trails emergency pipeline repairs project as complete, record the notice of completion, and release all funds held in retention to Vadnais Corporation, following expiration of notice of completion period. (Action)

II. **ACTION/DISCUSSION**

1. **Aqueduct System Operations**
   
   1-A **Aqueduct Operations decision support software.**
      
      (Information)

   1-B **Professional services contract with Franklin G. DeFazio, Incorporated for hydraulic transient analysis support services.**
      
      **Staff recommendation:** Award a professional services contract to Franklin G. DeFazio, Incorporated in the amount of $686,800 for hydraulic transient analysis support for the design of water conveyance facilities for a period of three years. (Action)

2. **Security and Emergency Services.**
   
   2-A **Resolution to adopt the National Incident Management System (NIMS).**
      
      **Staff recommendation:** Adopt Resolution No. 2006-____ a Resolution of the Board of Directors of the San Diego County Water Authority adopting the National Incident Management System (NIMS). (Action)

   2-B **Designations for Emergency Assistance and Relief.**
      
      **Staff recommendation:** Adopt Resolution No. 2006-____ a Resolution of the Board of Directors of the San Diego County Water Authority designating officers and employees authorized to execute certain disaster relief or emergency assistance documents. (Action)
3. **CLOSED SESSION:**
   Conference with Legal Counsel – Existing Litigation
   Government Code §54956.9(a)
   Name of Case: San Diego County Water Authority v. Atlantica, et al.; SDSC Case No. 046976

III. **INFORMATION**

1. Presentation on fiscal year 2006 Aqueduct Protection Program shutdown activities. Galleher

IV. **ADJOURNMENT**

Doria F. Lore
Clerk of the Board

**NOTE:** This meeting is called as an Engineering & Operations Committee meeting. Because a quorum of the Board may be present, the meeting is also noticed as a Board meeting. Members of the Board who are not members of the Committee may participate in the meeting pursuant to Section 2.00.060(g) of the Authority Administrative Code (Recodified). All items on the agenda, including information items, may be deliberated and become subject to action
August 16, 2006

Attention: Engineering and Operations Committee

Approve purchase of two replacement 36-inch plunger valves from VAG-Armaturen GmbH for $193,844.41. (Action)

Staff recommendation
Approve purchase of two replacement 36-inch plunger valves from VAG for $193,844.41. Water Authority staff will complete installation of the valves as part of the Valve and Venturi Meter Replacement Program.

Alternatives
1. Do not authorize the purchase of the replacement valves and direct staff to pursue other purchases. This alternative may result in higher costs and delay the project for up to 12-months due to staff availability during the approaching shutdown season.

Fiscal impact
There are sufficient funds remaining in the Valve and Venturi Meter Replacement Program project budget, and the Capital Improvement Program fiscal year 2006 and fiscal year 2007 appropriation, to support staffs’ recommendation.

Background
The Water Authority’s Crossover Pipeline transfers water from the Second Aqueduct in the Twin Oaks Valley area to the First Aqueduct in Escondido. The Crossover Terminal Structure is located at the end of the Crossover Pipeline, and houses two 36-inch plug valves that control the flow from the Crossover Pipeline to the First Aqueduct. During internal inspection of the valves this past shutdown season, damage to the interior of the plug valves was discovered. Staff determined the damage was caused by three factors: excessive cavitation of the valves due to the type of control valves currently installed, the necessary flows through the valves to meet downstream demands, and the facility piping configuration.

Discussion
Cavitation results when high pressure within a closed conduit is suddenly reduced to a lower pressure as occurs through valves under certain flow conditions. Cavitation has caused extensive damage to the existing plug valves and they need to be replaced before they start leaking. Rather than replace the plug valves with identical valves and have the same damage occur in the future, staff researched replacement valve alternatives and determined that the plunger valve was a cost effective preferred alternative.

On June 28, 2006, bid solicitations were mailed to 42 vendors and 125 firms received notification e-mails through their registration on the Network (the Water Authority’s collaborative online vendor registration system). In addition, a Notice to Bidders was advertised
in the San Diego Daily Transcript. The solicitation requested bids for two 36-inch plunger valves. Bidders had the option to comply with the minimum specifications as stated in the bid document, or submit alternate-equal specifications.

Two responses were received and opened on July 18, 2006. Operations and Maintenance staff recommend awarding the bid for the two valves to VAG, the lowest responsible bidder, for the total purchase price (including tax) of $193,844.41.

Due to the special circumstances for this type of service, SCOOP outreach requirements were not applicable.

Prepared by: Gary P. Stine, Operations & Maintenance Manager
Reviewed by: Gary A. Eaton, Director of Operations & Maintenance
Approved by: Paul A. Lanspery, Deputy General Manager

GPS: cao

Attachment:
  1. Table of Bids
### Table of Bids

<table>
<thead>
<tr>
<th>ITEM</th>
<th>GENERAL DESCRIPTION</th>
<th>VAG-Armaturen GmbH</th>
<th>Integrated 8A Solutions, Inc</th>
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<td>1</td>
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August 16, 2006

Attention: Engineering and Operations Committee

Construction contract with CDM Construction, Inc., for the San Vicente construction management trailer complex relocation. (Action)

Staff recommendation
Award a construction contract to CDM Construction, Inc. for $785,277 for the San Vicente Construction Management Trailer Complex Relocation project.

Alternatives
Reject all bids and re-bid the project.

Fiscal Impact
Funds in the amount of $785,277 for the construction contract are available within the existing San Vicente project budget and the approved fiscal year 2006 and 2007 Capital Improvement Program appropriations.

Background
The Water Authority has six portable buildings at the San Vicente site that are currently used as field offices to manage the construction of the San Vicente Pipeline. These field offices will be needed over the next six years during the construction of the San Vicente Pipeline, San Vicente Pumping Facilities (combined pump station and surge control facility), Interconnect Pipelines, and Dam Raise projects. The new complex location is necessary because it provides additional work area for the future dam raise construction and significantly lessens the risk of property damage and personnel injury due to blasting operations during the San Vicente Pumping Facilities project construction. The new complex site is located southwest of the existing marina access road on Water Authority owned land.

The San Vicente Construction Management Trailer Complex Relocation project consists of the relocation of the portable buildings including furniture and office equipment, the installation of water, septic holding tanks, electrical utility services and connections, installation of communication cabling, site grading, site lighting, and fencing. The San Vicente Construction Management Trailer Complex Relocation project was advertised for bids on June 15, 2006. The construction cost estimate was $720,000 to $840,000.

Previous Board action: None.

Discussion
Four bids were received at the public bid opening held on July 25, 2006. Bid prices ranged from $785,277 to $1,135,304. A bid summary is attached. CDM Construction, Inc. submitted the apparent low bid in the amount of $785,277. Staff reviewed the bid and performed an evaluation of
the apparent lowest responsible, responsive bidder. Based on the review and evaluation, CDM Construction, Inc. is the lowest responsible, responsive bidder, and is qualified to construct the San Vicente Construction Management Trailer Complex Relocation project. Completion of construction is scheduled for January 2007.

The small business participation for this project is 100 percent. The minority and women-owned business participation for this project is 2 percent.

Prepared by: Karen Henry, Senior Engineer
Reviewed by: John A. Economides, Director of Engineering

KH:af/bb

Attachment
1. Figure 1 –Location Map
2. Bid Results
# RESULTS OF BID OPENING

SAN VICENTE CONSTRUCTION MANAGEMENT  
TRAILER COMPLEX RELOCATION  
SPECIFICATION 543  

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August 16, 2006

Attention: Engineering and Operations Committee

Contract with Celerity Energy LLC licensing use of four standby generators. (Action)

Staff recommendation
Approve contract with Celerity Energy LLC (Celerity) allow Celerity to use, operate, improve, control and sell power of the four standby generators at Olivenhain Dam, in exchange for Celerity taking responsibility for the maintenance of the generators, subject to the Water Authority’s emergency requirements.

Alternatives
1. Do not approve the contract and direct staff to continue to negotiate with Celerity Energy LLC. A delay in negotiations could impact the $50,000 financial incentive offered by Celerity for contract approval and project implementation.

2. Do not approve the contract, and direct staff to continue to maintain the generators at an estimated cost of approximately $65,000 per year.

Fiscal impact
The projected annual savings to the operating budget in contracted maintenance services and fuel is approximately $65,000, leading to an estimated savings of $650,000 over the 10-year contract life. In addition Celerity Energy has offered the Water Authority a financial incentive of $25,000 for contract approval by the end of August, and an additional $25,000 for implementation by December 31, 2006.

Background
The Water Authority has four Caterpillar emergency generators at the Olivenhain Dam site. Each of the generators provide up to 2 MW of power to run the Olivenhain Dam and Pump Station in the event of an SDG&E power failure. The generators were purchased from the Olivenhain Dam construction contractor, Kiewit Pacific, who used them on-site during construction activities.

The California Public Utility Commission (CPUC) has approved an SDG&E demand reduction program to aggregate local standby generators for the purpose of producing energy during peak demand periods. Celerity was awarded the contract by SDG&E, which gives them the exclusive right to negotiate and contract with multiple owners of standby generators to produce energy for sale to SDG&E during peak demand periods. The generators can only be used during peak power emergencies, up to a maximum of 200-hours per generator per year.

Celerity is in negotiations and/or has contracted with the following member agencies: City of San Diego, Olivenhain Municipal Water District, Padre Dam Municipal Water District, Fallbrook Public Utility District, City of Oceanside, Otay Water District, and the City of Escondido. In addition
agreements are pending with the University of San Diego, Fox News, Caltrans, City of Chula Vista, San Diego Wild Animal Park, and a large biotech company.

**Discussion**
Celerity has offered an agreement to the Water Authority, which includes securing all permits, purchase and installation of mandatory clean air filter systems, interconnection of the generators to SDG&E’s electric system, transfer switch upgrades, purchase and delivery of fuel, purchase and installation of necessary communications equipment for remote operation, complete maintenance and repair of the generators up to a maximum amount of $50,000 per year with a 3 percent per year escalation clause. Celerity’s estimated cost to complete these tasks is $775,000. The installed equipment becomes Water Authority property at the end of the 10-year contract. In addition, if damage or failure to maintain by Celerity is the cause of necessary repairs, Celerity is responsible for all costs associated with the repairs. The 200-hour use limitation, per generator, does not significantly impact the life expectancy or long-term maintenance costs of the generators. The contract ensures that the Water Authority retains first right to use the generators for necessary operational or emergency use. In exchange, Celerity will receive an exclusive license to operate the generators and sell electricity generated, subject to the Water Authority’s required right to use the electricity for emergencies.

To pursue a similar agreement with SDG&E, the Water Authority would need to reach agreement with SDG&E to purchase the energy produced by the standby generators. If we were successful in reaching an agreement with SDG&E, we would then need to request approval from the CPUC, a process that could take three to four years. We would not be able to determine the revenue that could be gained from the sale of the electricity until this approval had been granted. The risk associated with the potential sale of energy would be the Water Authority’s. We would then need to secure the changes to the permits, make required changes including the installation of air filters, upgrade of the transfer switch, and the engineering, purchase, and installation of all necessary communications gateway equipment. Based on the savings to the Water Authority by the transfer of maintenance to Celerity, the Celerity contract is the preferred alternative.

This project is exempt from the California Environmental Quality Act pursuant to Section 15301 of the State CEQA Guidelines.

Due to the special circumstances for this type of service, SCOOP outreach requirements were not applicable. However Celerity anticipates the use of a small subcontractor to provide related work for this project.

Prepared by: Cheryll Stewart, Purchasing Manager
Reviewed by: Gary A. Eaton, Director of Operations & Maintenance
Approved by: Paul A. Lanspery, Deputy General Manager

CS:cao
August 16, 2006

Attention: Engineering and Operations Committee

Notice of completion for the Mission Trails emergency pipeline repairs (Action)

**Staff Recommendation**
Accept the Mission Trails emergency pipeline repairs project as complete, record the notice of completion, and release all funds held in retention to Vadnais Corporation, following expiration of notice of completion period.

**Alternatives**
None

**Fiscal impact**
There are sufficient funds remaining in the project budget and the Capital Improvement Program Fiscal Year 2007 Appropriation to release the retention to the contractor at the expiration of the Notice of Completion period.

**Background**
On May 16, 2006, the Water Authority experienced a failure on untreated water Pipeline 3 in the Mission Trails Regional Park. The General Manager issued an emergency time and material construction contract to Vadnais Corporation to complete the repair of both Pipeline 3 and Pipeline 4B. Vadnais Corporation began work on the morning of May 17, 2006. The treated water Pipeline 4B was inspected, secured with backfill, and returned to treated water service on May 18, 2006.

The contractor continued work on the untreated Pipeline 3 removing two damaged PCCP sections. Water Authority staff then conducted internal and external inspections of additional sections of pipe upstream and downstream of the removed sections. Based on the extensive damage of Pipeline 3, an interconnection pipe between Pipeline 3 and Pipeline 4 near Lake Murray proved to be the most cost effective and expeditious method to return temporary untreated water service to our south county service area.

*Previous Board action: 1) On May 25, 2006 Board Ratified the emergency construction contract to Vadnais Corporation for $860,000 to mobilize manpower, labor, and equipment to repair damage to Pipeline 3 (untreated water), stabilize Pipeline 4BII (treated water), and install an interconnect pipeline between Pipeline 3 and Pipeline 4 near Lake Murray.*

*2) On July 27, 2006, the Board ratified the increase to the emergency construction contract to Vadnais Corporation for an amount not to exceed $1,300,000 to repair damage to Pipeline 3, stabilize Pipeline 4B, and install an interconnect pipeline between Pipeline 3 and Pipeline 4 near Lake Murray.*
Discussion

All work is complete and the contractor’s time and material proposed costs were reviewed against the inspector’s daily reports to verify the actual costs of the repair. Additionally, an independent audit was performed by the Finance Department to insure the accuracy of the contractor’s invoiced costs. Compensation for Vadnais Corporation was based on actual labor and material cost plus 15 percent for overhead and profit for work done by the General Contractor. Compensation for subcontracted services included actual invoiced amount plus 5 percent for the General Contractor.

An amount of $61,487 (approximately 5 percent of the total contract amount) was retained in accordance with the contract terms. All funds retained during the course of construction will be released after Board acceptance, expiration of the 60-day period following recording of the Notice of Completion, and receipt of a signed Conditional Waiver and Release of Liens and Claims from the contractor. As a result, the final construction contract price including changes to the original scope of work was $1,229,730.14

Vadnais Corporation provided a Bond for Faithful Performance at the time of bidding, which will remain in full force and effect for the two-year post construction warranty period.

According to monthly proof of payment reports, each subcontractor has certified receiving payment in an amount consistent with the amount of work they have performed to date. The small business participation for this project was 14 percent.

Prepared by:  Habib Hariri, Engineer (P.E.)
Reviewed by:  John A. Economides, Director of Engineering
Approved by:  Paul A. Lanspery, Deputy General Manager

JAE/cv:af

Attachments:
   1. Figure 1 – General Vicinity Map
   2. Figure 2 – General Location Map
August 16, 2006

**Attention: Engineering and Operations Committee**

**Aqueduct Operations Decision Support Software (Information)**

**Purpose**
This report provides information on a phased approach to the development of aqueduct operations decision support software.

**Background**
The Water Authority’s aqueduct system is becoming more complex with the integration of new facilities, such as pipelines, pump stations, dams and reservoirs, hydroelectric facilities, and a water treatment plant. With a more complex system, the duty operators will have more options in supplying the member agencies demands for treated or untreated water and less time to make critical delivery decisions. The available delivery options may include moving water from multiple reservoirs into the aqueduct system or purchasing water from one of several different treatment plants. Each of these options will be impacted by numerous member agency and stakeholder contractual agreements, water quality impacts, cost implications, energy purchase requirements or daily maintenance issues.

*Previous Board Action: None.*

**Discussion**
During development of the Operations & Maintenance Strategic and Business Plans, staff focused on the increasing complexity of the aqueduct system and the critical need to employ innovative technology and business practices to keep pace with an ever-changing water supply and delivery environment. Operational and business continuity concerns led to the creation of several objectives aimed at ensuring documentation of operational policies and procedures and the effective transfer of institutional knowledge among staff. The phased development and implementation of a decision support software program was one of the tactics included in this year’s plan update.

The Water Authority’s increased supply and operational options have increased as new facilities have come on-line. Each of these options brings a unique set of contractual obligations, operational restrictions, and potential water quality and economic impacts to the Water Authority and member agencies. A decision support software that constantly monitors operational parameters (i.e. reservoir levels, maintenance outages, water quality constraints, etc.) and contractual obligations (i.e. power delivery schedules, surface storage delivery totals, etc.) will be used to assist Operations personnel in employing the best mix of available options to most economically and efficiently meet member agency demands for treated and untreated water.
Staff has developed a three-year program schedule for development and implementation of the decision support software. A brief description of the conceptual phases, and estimated duration of the program are outlined below.

Phase 1 (July 2006 through July 2009) – Hydraulic Transient Analysis Support Services
Lead: Engineering Department
Objective: Develop comprehensive and integrated aqueduct system-wide hydraulic transient analysis program and train in-house staff in the use and maintenance of the software. This is an essential first step to developing a comprehensive detailed model to evaluate potential surge issues that may occur with the construction and installation of new facilities into our existing aqueduct system.

Phase 2 (July 2007) – System Operations Model
Lead: Engineering Department
Objective: Integrate data from the transient analysis model into a steady state hydraulic system model that Engineering, Water Resources, and Operations and Maintenance personnel will utilize to identify impacts to the aqueduct system from hydraulic transients, new construction, maintenance outages, key equipment outages, flow restrictions, and design changes.

Phase 3 (July 2008) – Decision Support Software
Lead: Operations & Maintenance Department
Objective: Develop decision support software and integrate into Phase 2, Systems Operations Model. The decision support software and operations model will utilize real time flow, pressure, and energy use data from our existing SCADA system into the decision support software. This will assist personnel in evaluating the most economical and efficient operational options to meet the member agency demands for treated and untreated water. Staff will provide the Board with detailed information and the opportunity to approve each phase of the program prior to implementation.

Prepared by: Gary A. Eaton, Director of Operations and Maintenance
Reviewed by: Paul A. Lanspery, Deputy General Manager

GAE/VB:cs
August 16, 2006

Attention: Engineering and Operations Committee

Professional services contract with Franklin G. DeFazio, Incorporated for hydraulic transient analysis support services. (Action)

Staff recommendation
Award a professional services contract to Franklin G. DeFazio, Incorporated in the amount of $686,800 for hydraulic transient analysis support for the design of water conveyance facilities for a period of three years.

Alternatives
Do not award the contract, and continue to have separate consultants perform transient analysis for the aqueduct system on a project-by-project basis.

Fiscal impact
Individual CIP projects will be charged the $686,800 for these services. There are sufficient funds in the existing budget for projects impacted in the current 2007 fiscal year. Future funding will be requested in the 2008/2009 CIP appropriations.

Background
It has been past practice to have a hydraulic transient analysis performed as part of the design of each new CIP project added to the aqueduct system. This practice does not adequately highlight, in a timely fashion, possible surge events that could result from inter-project operational conditions, which could lead to costly facility additions late in the project cycle.

Previous Board Actions: None

Discussion
It has become evident that a comprehensive and integrated hydraulic transient analysis program for the entire water conveyance system is crucial for facility planning, design, and operation. Because of the increasingly complex facilities being added to the aqueduct system, the system historical and operational knowledge needed to perform this kind of work are so central to the Water Authority’s core function that this expertise should reside in-house. This will enable design decisions to be made in a way that reflects the integrated nature of the whole aqueduct system, and on a schedule that is under Water Authority direct control.

Staff has developed a three-step program to develop in-house transient analysis expertise:

Step 1: Contract directly with a transient analysis specialist to supplement individual project studies with an integrated system-wide view. At the same time, select and acquire an off-the-shelf and easily maintained transient analysis software package for in-house use. The transient analysis specialist will develop a test protocol to help select the new software.
Step 2: Train staff in the use of the new software and convert data sets prepared for old individual project studies into a format for the new system-wide model. Retain the services of the contract transient analysis specialist to assist in the data transition.

Step 3: In-house staff assumes responsibility for all transient analysis. The contract transient analysis consultant initially serves in a QA/QC function to check staff’s work, but is eventually phased out as in-house expertise develops.

Transient analysis is a highly specialized study in hydraulic dynamics, with only a limited number of experienced practitioners in the country performing such work. Acting as a subconsultant to various design engineering firms, Franklin G. DeFazio, Incorporated has provided the transient analysis services for several major Water Authority projects, including the Rancho Penasquitos Pressure Control and Hydroelectric Facility, the San Vicente Pump Station and Surge Control Facility projects, the Mission Trails FRS II and Pipeline Tunnel projects, the San Vicente Dam Raise project, the Olivenhain Pump Station, and the Twin Oaks Valley Water Treatment Plant. Because of this, the firm has a unique knowledge of the Water Authority system and has an existing calibrated model that represents nearly all of the Second Aqueduct untreated water system, and parts of the treated water system.

Due to their unique background, extensive hydraulic data collected, and specialty services in transient study, a competitive acquisition waiver is requested for Franklin G. DeFazio, Incorporated to provide hydraulic transient support to supplement current project efforts, perform inter-project coordination studies, assist in the organized conversion and transfer of existing data and background information, provide support for selection of hydraulic transient analysis software, and provide on-going hydraulic transient analysis quality assurance and quality control services. It is anticipated that an in-house transient analysis program will be developed within a period of two to three years, enabling trained staff to eventually perform this work without the use of consultants.

Due to the special circumstances for this type of service, SCOOP outreach requirements were not applicable. However, Franklin G. DeFazio, Incorporated is a SCOOP-qualified firm.

Prepared by: Jeff Garvey, Design Supervisor
Reviewed by: John A. Economides, Director of Engineering
Approved by: Paul A. Lanspery, Deputy General Manager

JAE:cs
August 16, 2006

Attention: Engineering and Operations Committee

Resolution to adopt the National Incident Management System (NIMS). (Action)

Staff Recommendation
Adopt Resolution No. 2006-__, a Resolution of the Board of Directors of the San Diego County Water Authority adopting the National Incident Management System (NIMS).

Discussion
The Water Authority supports a comprehensive emergency preparedness program focused on emergency response and recovery that is based on California’s Standardized Emergency Management System (SEMS). SEMS was mandated for public agencies in 1993, and the Board was informed of the Water Authority’s Emergency Preparedness Program at the June 1993 Board meeting. Since that time, much has happened at the state and national level in the area of emergency preparedness. Terrorist attacks and natural disasters have created an increased awareness of the need to standardize emergency preparedness and management at all levels of government.

In Homeland Security Presidential Directive (HSPD)-5, Management of Domestic Incidents, President Bush directed the U.S. Department of Homeland Security to develop and administer a National Incident Management System (NIMS). This system provides a consistent nationwide approach for Federal, State, local, and tribal governments to work effectively and efficiently together to prepare for, prevent, respond to, and recover from domestic incidents, regardless of cause, size, or complexity.

HPSD-5 requires all Federal departments and agencies to adopt NIMS and to use it in their individual domestic incident management and emergency prevention, preparedness, response, recovery, and mitigation programs and activities. It also requires them to take actions to assist State, local jurisdictions, or tribal entities. The directive also requires Federal departments and agencies to make adoption of NIMS by States, local jurisdictions, and tribal entities a condition of receiving Federal preparedness assistance as of September 30, 2006.

The Governor of the State of California has directed the Office of Emergency Services and the Office of Homeland Security, in cooperation with the SEMS Advisory Board, to develop a program to integrate NIMS into the State’s emergency management system. The Water Authority has been following publications on the Office of Emergency Services’ website and FEMA’s website, as well as attending local workshops to ascertain the minimum requirements for NIMS compliance.
The Water Authority is integrating NIMS into emergency management through revisions to emergency plans, incorporation of NIMS concepts into training and exercises, and interoperability with member agencies and emergency response organizations.

One of the integration compliance requirements for public agencies is the adoption of NIMS by resolution and forwarding of the adopted resolution to the Office of Emergency Services. The State of California will certify general compliance to the U.S. Department of Homeland Security for the State, local jurisdictions, and tribal entities in 2006.

Prepared by: Lisa Prus, Supervising Management Analyst
Reviewed by: Gary Eaton, Director of Operations and Maintenance
Approved by: Paul Lanspery, Deputy General Manager

Attachments
1. Resolution No. 2006-______
2. Letter from the Governor’s office of Emergency Services
RESOLUTION NO. 2006-____

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE SAN DIEGO COUNTY WATER AUTHORITY ADOPTING THE NATIONAL INCIDENT MANAGEMENT SYSTEM (NIMS)

WHEREAS, the President, in Homeland Security Directive-5, directed the Secretary of the Department of Homeland Security to develop and administer a National Incident Management System, which would provide a consistent nationwide approach for federal, state, local, and tribal governments to work together more effectively and efficiently to prevent, prepare for, respond to, and recover from disasters, regardless of cause, size, or complexity; and

WHEREAS, it is essential for responding to disasters that federal, state, local, and tribal organizations utilize standardized terminology, standardized organizational structures, interoperable communications, consolidated action plans, unified command structures, uniform personnel qualification standards, uniform standards for planning, training, and exercising, comprehensive resource management, and designated incident facilities during emergencies or disasters; and

WHEREAS, the California Standardized Emergency Management System substantially meets the objectives of the National Incident Management System; and

WHEREAS, the National Commission on Terrorist Attacks (9-11 Commission) recommended adoption of a standardized Incident Command System nationwide; and

WHEREAS, the Governor of the State of California has directed his Office of Emergency Services and Office of Homeland Security, in cooperation with the Standardized Emergency Management System Advisory Board, to develop a program to integrate the National Incident Management System, to the extent appropriate, into the state’s emergency management system; and

WHEREAS, the San Diego County Water Authority implemented the Standardized Emergency Management System in 1993 and has continued to support a comprehensive emergency management system that includes emergency plans, an emergency operations center, annual training and emergency exercises, and mutual aid agreements with member agencies, the Metropolitan Water District of Southern California, and the Water Agency Response Network.

NOW THEREFORE, the Board of Directors of the San Diego County Water Authority RESOLVES as follows:

1. That the foregoing facts are true and correct.

2. That the San Diego County Water Authority will integrate the National Incident Management System, to the extent appropriate, into its emergency management system.

3. That the San Diego County Water Authority will use and comply with the National Incident Management System as well as the Standardized Emergency Management System in California.

4. That a copy of this resolution is forwarded to the Governor’s Office of Emergency Services.
PASSED, APPROVED, AND ADOPTED THIS 24TH DAY OF AUGUST 2006, BY THE FOLLOWING VOTE:

AYES:

NOES:

ABSTAIN:

ABSENT:

_________________________
James H. Bond, Chairman
Board of Directors

ATTEST:

_________________________
Claude A. Lewis,
Secretary

I, Doria Lore, Clerk of the Board of the San Diego County Water Authority, certify that the vote shown above is correct and this Resolution 2006 - was duly adopted at the meeting of the Board of Directors on the date stated above.

_________________________
Doria F. Lore
Clerk of the Board
March 28, 2006

To: Mayors and Chairs, Boards of Supervisors

Subject: National Incident Management System

The purpose of this letter is to provide an update on the National Incident Management System (NIMS). Pursuant to Homeland Security Presidential Directive (HSPD) -5, "Management of Domestic Incidents," the federal Department of Home Land Security (DHS) developed NIMS. Compliance with NIMS is a prerequisite to receiving federal preparedness grant funds, including funds provided under the Homeland Security Grant Program and Urban Area Security Initiative. California’s Standardized Emergency Management System (SEMS) served as a model for the federal government in their development of NIMS and, as such, we are already compliant with many NIMS requirements.

The Governor’s Office of Emergency Services (OES) is responsible for coordinating and monitoring the overall statewide integration of NIMS into SEMS. California is addressing NIMS requirements through the SEMS Maintenance System as set forth in Governor’s Executive Order S-2-05 (enclosure 1). This system provides a vehicle for addressing NIMS implementation through its cross-jurisdictional and cross-disciplinary structure of the Advisory Board, Technical Group, Specialist Committees, and Mutual Aid Regional Advisory Committees.

Federal Fiscal Year (FFY) 2006 is the first year that DHS has set forth NIMS requirements for local government. OES, together with the SEMS Maintenance System committees, is developing guidance materials to assist local government in meeting the FFY 2006 NIMS requirements (enclosure 2). Beginning in May, OES will sponsor workshops throughout the state and provide technical assistance, as needed. Many documents have already been developed including a sample local resolution adopting NIMS (enclosure 3). You can find additional SEMS/NIMS information posted on the OES website at www.oes.ca.gov. Our regional offices will continue to work with local government on this issue. For your convenience, we have enclosed a regional map with contact information (enclosure 4).

I want to express my appreciation and support for the efforts of local government, particularly the emergency management staff, in ensuring NIMS compliance for their respective jurisdictions. Collectively, we have made significant progress and continue to work with our federal counterparts to ensure California’s NIMS implementation.

Sincerely,

[Signature]

Henry R. Renteria
Director

Enclosures
August 16, 2006

Attention: Engineering and Operations Committee

Designations for Emergency Assistance and Relief. (Action)

Staff Recommendation
Adopt Resolution No. 2006-___, a Resolution of the Board of Directors of the San Diego County Water Authority to designate officers and employees authorized to execute certain disaster relief or emergency assistance documents.

Alternatives
1. Do not adopt Resolution No. 2006-______, and require Board signature on any and all applications for federal or state financial assistance available as a result of a state and/or federally declared disaster.

2. Do not adopt Resolution No. 2006-______, and do not file for state and/or federal financial assistance following declaration of a state and/or federal disaster.

Discussion
The State Office of Emergency Services has developed standard forms under the California Disaster Assistance Act (CDAA) to ensure proper recording and authorized distribution of federal and state financial assistance resulting from a disaster. Form OES-130 is used to file a resolution designating an applicant’s authorized representative to whom all official correspondence and funding will be directed. Funding will not be provided to any requester within the state until this form has been approved by the state and on file.

The CDAA authorizes the Director of the Governor’s Office of Emergency Services (OES) to administer a disaster assistance program that provides financial assistance from the state for costs incurred by local governments as a result of a disaster event. Funding for the repair, restoration, or replacement of public real property damaged or destroyed by a disaster is made available when the Director concurs with a local emergency proclamation requesting state disaster assistance. The program also provides for the reimbursement of local government costs associated with certain emergency activities undertaken in response to a state of emergency proclaimed by the Governor. In addition, the program may provide matching fund assistance for cost sharing required under federal public assistance programs in response to a Presidential Major Disaster or Emergency Declaration. The regulations on implementation for CDAA can be found in Title 19 of the California Code of Regulations, Chapter 6.

The Water Authority has requested federal and state financial assistance most recently as a result of the 2005 Winter Storms under Federal Emergency Management Agency (FEMA) Disaster Record (DR) 1577 and FEMA-DR-1585. Total assistance requested is $373,708.60, and represents recovery from damage to structures and roads, as well as hazard mitigation at several
of the sites. None of these funds will be released until either a member of the Water Authority’s Board signs all documents related to the request, or the attached resolution is executed and submitted to the State.

The resolution put forth today is an adaptation of the form OES-130, which has been reviewed by State agents to ensure State’s acceptance upon Board adoption.

Prepared by: Lisa Prus, Supervising Management Analyst
Reviewed by: Gary A. Eaton, Director of Operations and Maintenance
Approved by: Paul A. Lanspery, Deputy General Manager

LP: cao

Attachment
Resolution No. 2006-_____
RESOLUTION NO. 2006-_______

RESOLUTION OF THE BOARD OF DIRECTORS OF THE SAN DIEGO COUNTY WATER AUTHORITY DESIGNATING OFFICERS AND EMPLOYEES AUTHORIZED TO EXECUTE CERTAIN DISASTER RELIEF OR EMERGENCY ASSISTANCE DOCUMENTS

Whereas, the San Diego County Water Authority is a public entity established under the laws of the State of California; and

Whereas, the Water Authority’s Board of Directors has delegated to the Water Authority’s General Manager, and subordinate employees designated by the General Manager, the power and authority to declare a local emergency, and further, to act to prevent and mitigate the loss or impairment of life, health, property or essential public services during or in response to an emergency event; and

Whereas, the Water Authority has adopted an Emergency Plan; and

Whereas, the State of California requires designation of agents authorized to apply for federal financial assistance under P.L. 93-288 as amended by the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988 or state financial assistance under the California Disaster Assistance Act, or both acts; and

Whereas, the Board of Directors desires to specifically designate by reference to employment positions those employees of the Water Authority designated to execute documents required for application and receipt of federal or state emergency or disaster financial assistance;

Now therefore, the Board of Directors of the San Diego County Water Authority resolves as follows:

1. Persons employed by the Water Authority in any of the following positions are authorized to execute applications, assurances, and agreements for federal and/or state disaster assistance to the State Office of Emergency Services for and on behalf of the San Diego County Water Authority:

   General Manager, or
   Deputy General Manager, or
   Assistant General Manager, or
   General Counsel, or
   Assistant General Counsel, or
   Deputy General Counsel, or
   Director of Operations and Maintenance, or
   Director of Finance/Treasurer, or
   Deputy Director of Finance, or
   Controller, or
   Financial Services Manager/Assistant Treasurer, or
   Operations and Maintenance Manager, or
   Risk Manager, or
Supervising Management Analyst in the Operations and Maintenance Department.

2. That this resolution be filed with the State office of Emergency Services.

PASSED, APPROVED, and ADOPTED this 24th of August 2006.

Ayes: Unless otherwise noted, all Directors present voted yes

Noes:

Abstain:

Absent:

________________________
James H. Bond, Chairman

ATTEST:

________________________
Claude A. Lewis,
Secretary

I, Doria F. Lore, Clerk of the Board of the San Diego County Water Authority, certify that the vote shown above is correct and this Resolution No. 2006- _____ was duly adopted at the meeting of the Board of Directors on the date stated above.

________________________
Doria F. Lore,
Clerk of the Board
August 16, 2006

Attention: Engineering and Operations Committee

CLOSED SESSION:
Conference with Legal Counsel – Existing Litigation
Government Code §54956.9(a)
Name of Case: San Diego County Water Authority v. Atlantica, et al.; SDSC Case No. 046976

Purpose

This memorandum is to recommend that the committee by motion hold a closed session, pursuant to Government Code §54956.9(a) to discuss the above-referenced matter at the August 24, 2006 Board meeting.

A closed session has also been included on the agenda of the formal Board of Directors’ meeting, but unless the Board has additional questions or concerns, it is not staff’s intention to ask for a closed session with the full Board at that time.

Prepared by: Daniel S. Hentschke, General Counsel
August 16, 2006

Attention: Engineering and Operations Committee

Fiscal Year 2006 Aqueduct Protection Program shutdown activities. (Information)

Background
In 1992, the APP was established to monitor and maintain the condition of the Water Authority’s aqueducts. To effectively complete this objective, it is necessary to perform periodic internal inspections of the pipelines, which allow staff to re-evaluate and adjust, if necessary, the estimated service life and internal inspection frequencies. This report summarizes the APP’s fiscal year 2006 shutdown activities and provides a summary of the fiscal year 2007 planned shutdowns.

Discussion
The following is a summary of APP work performed during fiscal year 2006.

Internal Inspections:
APP staff inspected 51.2 miles of pipe along the First and Second Aqueducts over four planned shutdowns. Pipes were inspected both visually and with the latest non-destructive technology available to gain the best information about the current condition. During visual inspection, a total of 220 minor repairs were found and repaired. The overall condition of the pipelines was good for their age and the data collected will be used to update the remaining service life.

Remotely Operated Vehicle Internal Inspections:
During the February 2006 scheduled shutdown, APP staff utilized two different remote operated vehicle (ROV) tools to inspect 1,340 feet of Pipeline 3 and 830 feet of Pipeline 4 under Lake San Marcos that could not be dewatered. These ROV’s used sonar and video to record the internal condition of the pipe. The inspection found that the pipe was in good condition and no repairs were required. The data collected will be used to update the remaining service life calculations for this area.

Acoustic Fiber Optic Cable Monitoring:
During the March 2006 shutdown, 10.4 miles of acoustic fiber optic (AFO) cable was installed in sections of Pipeline 3 and 4 between Mission Trails Regional Park and State Route 94. This includes 4 miles of the 72-inch Pipeline 4 (Mission Trails to Lake Murray) and 6.3 miles of the 66 and 69-inch Pipeline 3 (Mission Trails to State Route 94). Acoustic fiber optic cable is a continuous hydrophone that listens, records, and locates wire breaks within prestressed concrete cylinder pipe while the pipeline is in service. This provides information on the pipelines rate of decay from the date of the AFO cable installation, but does not provide information on the previous condition of the pipeline. Preliminary monitoring of Pipelines 3 and 4 began in April 2006. Commissioning of the AFO cable system was ongoing when Pipeline 3 failed in Mission...
Trails Regional Park on May 16, 2006. Currently, AFO cable is monitoring Pipeline 4 (Mission Trails to Jackson Drive) and Pipeline 3 (Jackson Drive to State Route 94).

The AFO cable was able to record the wire breaks as they occurred during the Mission Trails Pipeline 3 failure. However, the communications between the data acquisition system in San Diego and the data analyst in Canada had not been fully commissioned so there was a delay in retrieving the data. Since the failure, communications has been established and the pipeline is being monitored 24-hours a day via computer. The Water Authority is the first and only AFO system in the world that has this ability. Due to the ability of this type of monitoring system to detect the wire breaks in real time, future AFO cable installation sites are being investigated and will be brought back to the Board in the near future. In addition, staff will be recommending that the current monitoring contract be extended from 3 to 12 months at the September 2006 Board meeting.

Emergency/Urgent Repairs:
During fiscal year 2006 there were two urgent repairs and one emergency repair.

**Pipeline 3, Mission Trails Emergency Repair, May 2006:** APP gathered forensic information to aid in determining the cause of the failure. This included visual inspection and assessment of eight exploratory excavations on Pipeline 3 to determine the condition of the joints within the area of the pipe failure, and one exploratory excavation on Pipeline 4 adjacent to where Pipeline 3 failed. The data collected from the exploratory excavations coupled with remote field eddy current (RFEC), acoustic fiber optic cable, and visual inspections will be used to provide a condition assessment and recommendation for rehabilitation of Pipeline 3 in the Mission Trails area. This report will be brought to the Board in November 2006.

**Pipeline 5, Twin Oaks Valley Urgent Repair, June 2006:** An urgent repair was declared on Pipeline 5 based on refinements to RFEC software which elevated two sections of pipe from moderate to severe, and further analysis completed by two independent engineering consultants which confirmed a high probability for pipeline failure. An exploratory excavation was conducted and confirmed the corroded and broken wires in the region that RFEC had reported. Due to the location and time sensitivity for the urgent repair, it was decided to install carbon fiber reinforcement to both sections of pipe. The work was completed within the scheduled six-day shutdown.

**Ramona Pipeline Urgent Repair, June 2006:** The Right of Way Department was working with a contractor on the planned encasement of approximately 200-feet of the Ramona Pipeline as part of the construction of a private school in Rancho Bernardo. APP staff was requested to assess the condition of the pipeline prior to encasement to ensure the integrity of the joints and verify previously recorded inspection data. Visual inspection found corrosion had caused a small leak on the pipe. At the time the repair was found, San Diego County was experiencing record high temperatures. The Operations and Maintenance and Engineering Departments worked together to expedite an assessment of the pipe, and schedule an urgent three-day shutdown of the Ramona Pipeline. A buttstrip was welded on
the interior of the pipe over the damaged area and the pipeline was placed back into service before the end of the scheduled three-day treated water shutdown.

Fiscal year 2007 Shutdowns:
There are five scheduled shutdowns for fiscal year 2007. Of the five, there are four that involve untreated and one involving treated water. The four untreated water shutdowns are comprised of two minor ones (early October 2006 and January 2007) and two major ones (late October 2006 and March 2007). The treated water shutdown is scheduled for November 2006, and will be a total treated water outage. This outage is required for Metropolitan Water District (MWD) staff and contractors to perform the final connection work being performed at MWD’s Skinner Water Treatment Plant. These shutdowns and any other work that affects the delivery of water to San Diego County is included in the Aqueduct Operating Plan that was presented to the Board in March 2006. Any changes to the Aqueduct Operating Plan are updated monthly at the Operating Heads meeting.

In summary, the APP team completed the planned milestones for fiscal year 2006, and performed inspection of cathodic protection systems. Planned activities for fiscal year 2007 are installation of AFO cable in select areas, internal inspection of scheduled pipelines, presentation of the condition assessment of Pipeline 3 in Mission Trails in November 2006, development of an APP workshop for the Board in January 2007, presentation of the Aqueduct Operating Plan in March 2007, and revision of the APP’s 10 year milestones and goals in May 2007.

Prepared by: John J. Galleher Jr., Senior Engineer (P.E.)
Reviewed by: Gary A. Eaton, Director of Operations and Maintenance

JG:cao