- **Water Planning, Quality and Resources Committee**
  CALFED/Bay-Delta Oversight Subcommittee

January 9, 2006 Committee Meeting

8a

Subject

Evaluation of Delta Levee System Vulnerability and Emergency Preparedness and Response Capability

Description

The New Orleans levee failures due to Hurricane Katrina have increased the awareness of the potential for catastrophic failure of California's Delta levee system, as well as the adequacy of emergency, near-term and long-term governmental response. Delta islands were created in the late 1800s through draining and reclamation of land for agriculture. Delta islands have subsided up to 35 feet through farming and the oxidation of peat soils. A system of more than 1,100 miles of levees protects these islands, and major utilities, highways, and railroads interlace this region. Levees that provide for the conveyance of freshwater to state and federal export pumps traverse portions of the Delta where subsidence is most pronounced. The most problematic areas exist in the western and central Delta, where peat soil subsidence is greatest, levee designs and maintenance practices are varied and 11 islands have flooded since 1960.

If levees were to be disrupted by earthquake, severe weather or sabotage, it could trigger a domino effect of multiple levee failures across the Delta – a scenario that could have severe and wide-ranging consequences for California. Specifically, multiple failures would likely disrupt drinking water for more than 22 million Californians, industry and agriculture; severely impact the state's $400 billion economy; impact homes for more than 400,000 people; disrupt habitat for 500 species; and potentially damage critical infrastructure such as highways, pipelines, power distribution, railroad and deep water ports. Given that the State Water Project (SWP) has provided more than half of the imported supplies available to Metropolitan over the past couple of years, Metropolitan would likely experience potentially prolonged disruption in SWP supply. In addition, serious water quality concerns have resulted from Delta levee failures, including elevated levels of TDS, TOC and invasive algae species. Further, since issuance of the CALFED Record of Decision (ROD) in 2000, levee remediation efforts have not resulted in significant reduction in risk to Delta export water quality and supply.

In testimony before the California Senate on November 1, 2005, the Department of Water Resources (DWR) stated that the Delta levee system might experience sustained damage and not fully recover from a plausible 6.5 Richter earthquake on faulting below the western Delta. In October 2005, Assembly Bill 1200 by Assemblyman John Laird (D-Santa Cruz) called for a joint study by DWR and the Department of Fish and Game on the potential impacts on water supplies derived from the Sacramento-San Joaquin Delta resulting from a variety of man-made and natural disasters. This study would be completed by 2008.

Given DWR's recent testimony and the significant risk to Delta export water quality and supply, Metropolitan and the State Water Contractors (SWC) are coordinating with DWR's emergency response plans to avert the predicted catastrophic consequences of levees' failure. This information board letter provides background on the Delta levee system and its vulnerability, and presents strategies for emergency preparedness, emergency response, and preemptive near-term and long-term actions. A more detailed review of these actions is contained in **Attachment 1**. In February, Metropolitan's Board will consider proposed policy principles to advance Metropolitan's interests in addressing Delta levee stability.

Recent Analytical Studies. In recent studies and in the November 1, 2005, testimony before the California Senate, DWR has concluded a plausible magnitude 6.5 Richter earthquake could result in 30 levee breaches and the flooding of 16 Delta islands. DWR projects that levee repairs will require at least 15 months. More realistically, they estimate the repairs will take longer, but do not provide a definite timeframe for completion.

After one year, they estimate seven of the 16 islands would be repaired, but because of the complicating effects of additional levee erosion and the compromised integrity of remaining Delta levees, further recovery may be abandoned. While Metropolitan would be drawing from its surface reservoir and groundwater reserves and other resources, other SWP contractors with little or no reserves would experience problems quickly. The repair of Delta levees' damages in such a scenario is estimated to be at least $6 billion. The improvement of Delta levees to U.S. Army Corps of Engineers PL 84-99 standards in advance of such a failure scenario would cost around $1.3 billion. The PL 84-99 standard provides a 100-year level of flood protection, along with established minimum levee slopes to ensure structural stability. The levees, however, would remain susceptible to earthquakes even after PL 84-99 improvements were made. This level of protection is far less than exists for other flood prone areas of the United States.

Emergency Preparedness and Response Capability Measures. DWR has concluded that the Delta levee system may not fully recover under their assumed magnitude 6.5 Richter earthquake. The following are a series of potential emergency preparedness, emergency response, and near-term and long-term strategies that could be employed to help avert the catastrophic consequences predicted.

Emergency Preparedness. Metropolitan, in cooperation with the State Water Contractors, would develop emergency preparedness actions (hydrodynamic modeling, shared conveyance capacity, information on SWC resources, and alternative contracted supplies) for inclusion in DWR's emergency response plans. DWR would incorporate contractor emergency response measures in emergency response plans, improve emergency stockpiles of construction materials in the Delta, and improve emergency contracting capabilities.

Emergency Response. Metropolitan would implement emergency response measures during Delta levees' failures by drawing on surface and groundwater storage, locally based groundwater recovery, water recycling/reuse, water conservation, contracts for other sources of supply, available Colorado River supplies and related measures. DWR would administer actual emergency activities, including gated or temporary channel closures in the western Delta to curtail flow and salinity intrusion, and emergency reconfiguration of Delta channels to route water supplies to export pumps and maintain water quality.

Preemptive Near-Term Strategies. Metropolitan would assist in the evaluation of alternative emergency Delta conveyance measures. DWR would finish the Delta Risk Management Strategy, comply with reporting requirements under AB 1200 (Laird), strengthen critical levees, institute modified farming practices on public islands to minimize subsidence, and make provisions for selective channel closures and routing of fresh water to the export pumps to minimize effects of ocean salinity intrusion and export water quality degradation in the event of levee failures.

Preemptive Long-Term Strategies. Through the Delta Risk Management Strategy or other processes, DWR, in cooperation with other agencies, would determine the economic consequences of differing levee failure scenarios, and evaluate alternative remedial actions such as improvements at combinations of islands, improved storage south of the Delta or conveyance alternatives outside the Delta region to minimize effects to export water quality and supply.

Policy

The Board of Directors adopted a position of support for the year 2000 CALFED ROD, which included a preferred Through Delta Conveyance solution for the Sacramento - San Joaquin Bay Delta. This position was supportive of CALFED's strategy to pursue the Through Delta Conveyance solution in its Stage 1 implementation, which generally included the first seven years of the program, as well as focused levee improvements. It was recognized that upon completion of Stage 1, the ability to implement this solution would be assessed and that subsequent alternative implementation actions could be pursued.

Fiscal Impact

Not yet determined. Strategically directed emergency preparedness, emergency response, near-term and long-term actions will result in costs that could be funded through state bond funds, state general funds, federal appropriations, and local sources with stake in the integrity of the Delta levee system. A method of sharing costs from among these sources has not been determined. Metropolitan has consistently stated that local costs must be justified by equivalent benefits.

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Attachment 1 – Technical Evaluation of Delta Levee System Vulnerability and Emergency Preparedness and Response Capability

BLA #4079

Technical Evaluation of Delta Levees System Vulnerability and Emergency Preparedness and Response Capability

The New Orleans levee failures have increased the awareness of the potential for catastrophic failure of the Delta levee system, as well as the adequacy of short-term and long-term governmental response. Delta islands were drained and reclaimed for agriculture in the late 1800s and have since subsided up to 35 feet from farming practices and though the oxidation of peat soils. A system of more than 1,100 miles of levees protect major utilities, highways, and railroads and convey freshwater to state and federal export pumps.

"Project" levees make up about one-third of the system, built to the U.S. Army Corps of Engineers PL 84-99 standard of design and maintained by local Reclamation Districts (RDs) on behalf of the State Reclamation Board. The PL 84-99 standard provides a 100-year level of flood protection, along with established minimum levee slopes to ensure structural stability. The state inspects the "Project" levees to make sure that they are maintained in accordance with the U.S. Army Corps of Engineers standards. "Non-Project" levees make up about two-thirds of the system, built to FEMA or lesser standards of design, maintained by local RDs and situated generally in the most vulnerable areas of the Delta with respect to subsidence and adverse consequences of failure. A small fraction of the levees are privately owned. State and/or federal agencies do not inspect "Non-Project" and privately owned levees.

If levees were to be disrupted by earthquake, severe weather or sabotage, it could trigger a domino effect of multiple levee failures across the Delta – a scenario that could have severe and wide-ranging consequences for California. Specifically, multiple failures would likely disrupt drinking water for more than 22 million Californians, industry and agriculture; severely impact the state's $400 billion economy; impact homes for more than 400,000 people; disrupt habitat for 500 species; and potentially damage critical infrastructure such as highways, pipelines, power distribution, railroad and deep water ports. This technical evaluation only deals with issues related to water supply and water quality.

In addition to the disruption of conveyance capabilities, there are serious water quality concerns resulting from levee failures. As a result of the breach of the Jones Tract levees in 2003, elevated levels of TDS, TOC and invasive algae species were detected in the Delta supplies delivered to those who contract for State Water Project (SWP) supplies. These water quality contaminants posed potential problems in water treatment and compliance with primary drinking water quality regulations.

The Department of Water Resources (DWR) predicts a 100-year earthquake would initially trigger the breach of three to ten levees on one or more Delta islands. Based on the progressive damage to levees that occurred within Jones Tract after the initial breach, it is believed that these seismically induced breaches could result in a broader failure of the Delta levee system. Probability analysis reflecting a 1-in-100 chance of failure of the Delta levee system means that the risk we face in the Delta is in order of magnitude higher than the level of risk we find acceptable for other major infrastructure and critical facilities.

In testimony before a joint session of the Senate Subcommittee on Delta Resources, Senate Transportation and Housing Committee and Joint Committee on Emergency Services and Homeland Security on November 1, 2005, DWR Director Lester Snow stated that with severe levee failures, the Delta levee system might not fully recover. The stated DWR scenario contemplates curtailing all recovery efforts after one year.

It is believed that Metropolitan's Emergency Response Capabilities would be able to respond to these potential outages while alternate methods of maintaining SWP supplies are brought on line through either Emergency Response Actions or Near-Term Strategies summarized below.

Metropolitan Response Capabilities

Response to Progressive Levee Failure Scenarios. DWR and UC Berkeley studies indicate that from three to ten breaches of the Delta levee system could statistically occur in a 100-year earthquake event. This would have the likely follow-on effect of multiple breaches caused by wave action within the island being flooded, erosion

and failure of the inside face of the same island, followed by failure and the breach of adjacent islands at their weakest points due to strong Delta winds, long fetch, high wave action and erosion. It is unknown how extensive a failure scenario of the type described above would be; however, events at the Jones Tract tend to substantiate the potential of this scenario.

In a recent exercise, DWR performed "worst case" multiple levee breach scenarios that assessed the consequences of 30 and 50 breaches. The most critical determinant here is how long the levee repair actions would take and under what conditions export operations could resume.

Metropolitan Actions to Assure Reliability and Quality. It is important to note that Metropolitan, through the implementation of the Integrated Resources Plan and through development of emergency storage planning criteria, has aggressively pursued programs and investments to increase surface and groundwater storage south of the Delta. This has resulted in over a tenfold increase in its storage capacity over the past decade. Based on figures presented in Metropolitan's 2005 Regional Urban Water Management Plan, there is over 650,000 acre-feet of surface storage in Metropolitan and DWR reservoirs, reserved specifically for use in an emergency situation. On top of this, Metropolitan's dry-year portfolio of surface and groundwater storage has a current total capacity of approximately 2,500,000 acre-feet, with a single-year extraction capability of approximately 900,000 acre-feet. In addition to storage programs, funding of locally based programs in groundwater recovery, water recycling/reuse, and conservation savings programs have also reduced the year-to-year dependence on imported supplies from the Delta. Programs identified in the Quantification Settlement Agreement, such as the San Diego County Water Authority/Imperial Irrigation District Transfer and the Palo Verde Irrigation District Crop Rotation Program, are also being developed and implemented, and will increase the reliable water supply on the Colorado River Aqueduct over time. All of these resources, in combination, work together to ensure continuing access to an adequate and high quality supply of water during an extended Delta outage period.

Emergency Preparedness

DWR has concluded that the Delta levee system may not fully recover under an assumed magnitude 6.5 Richter earthquake. The following are a series of preparatory actions that can be taken to prepare for rapid and calculated response to emergencies to help avert the catastrophic consequences predicted.

Metropolitan and Cooperative State Water Contractors' (SWC) Activities. Metropolitan should undertake the development of emergency preparedness plans to respond to specific SWC needs. These plans would be made available to DWR for inclusion in emergency response plans used in actual emergencies.

- Perform predictive or real time modeling to determine the magnitude and duration of adverse salinity effects of levee breaches. Use modeling results to guide the closure of channels or levees on or near the San Joaquin River in the western Delta to limit salinity intrusion and flow.
- Evaluate shared capacity with other conveyance facilities, depending on which facility has conveyance capability after the assumed levee failures.
- Evaluate adequacy of downstream SWP contractors' groundwater and surface storage reserves during a prolonged Delta outage under dry, wet and normal year scenarios.
- Determine the ability of SWP contractors to reduce their demand through measures such as extraordinary water conservation, reliance on in-district surface water sources, and other measures.
- Identify outages that could be expected and additional measures that could be taken at a SWP contractor and DWR level to improve reliability.
- Pursue voluntary contracts with agricultural entities south of the Delta for additional groundwater and surface water transfer supplies.
- Pursue emergency purchases of San Joaquin River tributary reservoir water, which may be available in wetter years.

Department of Water Resources Activities. DWR should develop emergency response criteria and plans, and improve emergency contracting capability, materials availability and the command structure to reduce response time and export curtailment period, including the following:

- Finalize the Interim Emergency Response Plan by early 2006, incorporating emergency response planning measures described herein.
- Develop DWR water supply outage criteria showing duration and magnitude of expected emergency SWP supplies.
- Establish emergency contracting capability with one or more firms to respond immediately to a levee breach or similar situation.
- In addition to current strategies, continue to implement Basin-wide Asset Management, in which DWR and the Delta counties pursue joint basin-wide management of flood fight assets during a major flood event in the Delta. Delta emergency response is coordinated through the State-Federal Flood Operations Center and the Basin-wide Asset Management is implemented at the Delta Incident Command. This system is compliant with the Standardized Emergency Management System's (SEMS) Area Command and Mutual Aid concepts. These efforts would facilitate communication and save time in advancing emergency response measures among state, federal and local agencies.
- Acquire stockpiles of rock, soil, sand and gravel for emergency use and position these supplies near the most vulnerable areas of the Delta and at DWR's Delta flood emergency storage depots.
- Institute a state water bank, consisting of dry-year water purchases from willing sellers and developed in a manner to protect against a Delta outage, which would then be made available to water agencies downstream of the Delta to help offset potential water shortage conditions and associated economic impacts and hardships.

Emergency Response

Metropolitan in cooperation with the SWC would develop comprehensive emergency response measures to be incorporated into the DWR emergency response plans. The following are a series of actions that could be employed immediately following a serious emergency to help avert the catastrophic consequences predicted:

Metropolitan Actions to Assure Reliability and Quality. Metropolitan, through the implementation of the Integrated Resources Plan and through development of emergency storage planning criteria, has aggressively pursued programs and investments to increase surface and groundwater storage south of the Delta. This has resulted in over a tenfold increase in its storage capacity over the past decade. Based on figures presented in Metropolitan's 2005 Regional Urban Water Management Plan, the following reserves are in place specifically for emergency situations:

- Surface storage programs of over 650,000 acre-feet of surface storage in Metropolitan and DWR reservoirs, reserved specifically for use in an emergency situation.
- Surface and groundwater storage programs under Metropolitan's dry-year portfolio with a current total capacity of approximately 2,500,000 acre-feet, with a single-year extraction capability of approximately 900,000 acre-feet, potentially lasting multiple years during an extended Delta outage.
- Locally based groundwater recovery, water recycling/reuse and emergency water conservation to reduce the year-to-year dependence on imported supplies from the Delta.
- Quantification Settlement Agreement programs on the Colorado River, including the SDCWA/IID Transfer and the PVID Crop Rotation Program will increase the reliable water supply on the Colorado River Aqueduct.

- Contracts with agricultural entities south of the Delta for additional groundwater and surface water transfer supplies.

These resources work together to ensure continuing access to an adequate and high quality supply of water during an extended Delta outage period. In the IRP Update approved in 2004, the Metropolitan Board of Directors also directed staff to develop a planning buffer. Projects identified through the planning buffer can also be developed and implemented should additional reliability be desired in advance of a Delta emergency.

Department of Water Resources Activities. Emergency activities would be performed in the Delta under the administration of the Department of Water Resources, pursuant to the actions outlined under Emergency Preparedness, above:

- Provide gated or temporary channel closures to curtail flow and salinity intrusion into the Delta. Respond to breached levee or channel closures either through pre-positioned rock stockpiles, or specialized structural systems (barges, gates, etc.) for a short period in an attempt to limit salinity intrusion and flow and avert the most serious damage.
- Emergency reconfiguration of Delta channels to route water supplies to export pumps, accompanied by selected channel closures to contain and direct flows.
- Share capacity with other conveyance facilities passing through or around the Delta, depending on which facility still has conveyance capability after the assumed levee failures.

Preemptive Near - Term Strategy

The following are potential actions that can be taken in the next two to five years to reduce the potential of levee failures and to minimize the risks to fisheries, water quality, and water supply associated with that scenario. A number of these actions directly support Emergency Response actions listed above.

Metropolitan and Cooperative SWC Activities

- Evaluate emergency preparedness measures and alternatives under the Governor's emergency powers authority, including alternative emergency Delta conveyance measures, to meet needs during a prolonged Delta outage.
- Pursue Lake Mead operations and other Colorado River water management programs by establishing a mechanism to "deposit" unused water in an "account" for withdrawal later when needed to avoid a shortfall.
- Pursue federal and/or state emergency powers legislation, as necessary, to facilitate implementation of emergency and near-term actions.

Department of Water Resources Activities

- Finalize the Delta Risk Management Strategy. This analysis would evaluate the potential water quality, water supply, environmental and economic consequences associated with levee failures in the Delta.
- Acquire real property for rock and other construction materials deemed essential for such emergency operations.
- Strengthen critical levees in the western and central Delta, including measures for selective channel closures and routing of fresh water to the export pumps, to prevent ocean salinity intrusion and export water quality degradation due to levee failures. Construct cross-island levees on critical islands to reduce the volume of inflow should a levee fail. Modify levees to equal or exceed USACE PL 84-99 standards, including appropriate measures for levee and foundation stability and seepage, with independent technical Board of Consultants review.

- Pursue modified farming practices on public islands to reduce soil erosion due to farming and peat oxidation.
- Enhance levee instrumentation, inspection and monitoring.
- Under AB 1200 (Laird), in cooperation with DFG, perform a joint study of the potential impacts on water supplies from the Sacramento-San Joaquin Delta by 2008 (see Recent Legislation below).

Cooperative Federal, State and Local Actions

- Cooperate with local, regional and state land use planning agencies to promote coherent land use practices in the Delta that are consistent with long term sustainability for agricultural, rural and urban communities.
- Require property owners in areas protected by Delta levees to carry flood insurance obtained through the federally backed National Flood Insurance Program.
- Update the National Flood Insurance Program maps covering the Delta islands based on the best available topographic, hydrologic, hydraulic, geotechnical, and maintenance information.

Preemptive Long - Term Strategy

Depending on the performance that is achievable with the actions identified above, it may be necessary to implement additional measures to provide acceptable water supply reliability and source water quality. The Delta Risk Management Strategy is a process now being undertaken to look at the consequences of different types of failures of the Delta levee system in economic terms. Alternative remedial actions can then be taken and measured for their economic effect. This and other planning tools could be used to evaluate long-term solutions to ensure reliability. Implementation actions from this effort might be accomplished in five to 15 years.

Cooperative DWR, Metropolitan and SWC Activities

- The Delta Risk Management Strategy (DRMS) is a joint effort of DWR and the U.S. Army Corps of Engineers (USACE). It evaluates both hazards (seismic, subsidence, etc.) and system operational conditions (emergency logistics, hydrologic, etc.) in combination to determine the economic consequences of levee failures in the Delta and downstream. This effort would likely follow the timeline of the report being prepared for the California Legislature by January 2008 (see Recent Legislation below).
- An evaluation of long-term actions both inside and outside the Delta to address how to maintain a reliable long-term Delta conveyance system critical to the delivery of SWP allocations and transfers, and to effectively manage source water quality required for the State Water Project users to comply with drinking water standards. The following alternative strategies can be evaluated from an economic perspective using the DRMS or other planning tools:
    - The Through-Delta solution considered in the CALFED Bay Delta Program EIR/S, including north delta flood control components.
    - Alternative Delta island remediation strategies at one or more islands, consisting of levee improvements, provisions for selective channel closures to prevent ocean salinity intrusion and water quality degradation at Delta export pumps in the event of levee failures, land use modifications, and measures to reverse subsidence.
    - A water conveyance facility from the Sacramento River to the state and federal export pumps and other users. The capacity, cost and institutional operation of such a facility would need to be determined as part of a Long-Term Delta Vision process. In addition to providing water supply and improved water quality to export users, the facility should also be evaluated for potential benefits or impacts for environmental and other purposes.

  - Pre-positioned and enhanced storage could be considered south of the Delta for SWP export users.

- While Suisun Marsh is home to various duck clubs, an alternative land use could be to convert greater portions of the marsh to back natural tidal marsh habitat, providing the capability to trap tidal flow (and salinity) further away from export facilities. Negotiations could be undertaken with the duck clubs to voluntarily sell and transfer to Delta islands such as Sherman and Twitchell.

Levee Funding – Public Funding (Current Outlook)

A series of funding alternatives may be available to implement emergency preparedness, emergency response, and near-term and long-term strategies potentially to the benefit of water exporters and consistent with the principle of beneficiary pays. Some of these alternatives are summarized below:

Subventions Program. Under the subventions program, local agencies that maintain or improve project or non-project levees located in the Delta are eligible for reimbursement from the state of up to 75 percent of the costs they incur or about $1,000 per mile of project. As of July 1, 2006, the reimbursement rate drops to 50 percent.

Local agency maintenance and improvement projects that seek state financial assistance are subject to approval by the State Reclamation Board and must comply with criteria developed by DWR and adopted by the State Reclamation Board. If applications for state funding in any year exceed the state funds available, the board apportions the funds among those levee or levee segments that are identified by DWR as most critical and beneficial, considering the needs of flood control, water quality, recreation, navigation, habitat improvements and fish and wildlife.

Recent state appropriations for the subventions program have come from General Obligation bond proceeds (Propositions 13 and 50), but these funds have been expended. Historically, state funding for the program has come from General Obligation bond proceeds and the State General Fund. In the absence of funding from bonds or the State General Fund, legislation could target a new funding source for support of the subventions program.

Existing law states the intent of the Legislature to annually appropriate $6 million annually for local assistance under the subventions program and $6 million annually for the Special Projects Program, including subsidence studies and monitoring. In 2005, SB 264 (Machado) was enacted which extended the Delta Flood Protection Fund through June 30, 2008, but did not act to maintain the current funding commitment of $6 million per year or the 75 percent reimbursement level. The latter items will be reduced to $2 million and 50 percent, respectively, on July 1, 2006, unless subsequent legislation is enacted.

Water Resources Development Act (WRDA). An appropriate choice for long-term actions would be to seek authorization under the Water Resources Development Act for expanded federal flood responsibility by the Army Corps of Engineers.

Disaster Assistance Funding under USACE Small Projects Program. Under the Small Projects Program administered by the U.S. Army Corps of Engineers, projects costing $10 million or less can be funded without going through the time-consuming federal authorization process.

Bond Funds. Earlier this year, State Senate Pro Tem Don Perata (D-Oakland) proposed a $1 billion bond issue for levee work as part of a larger infrastructure bond, and in late September issued a renewed call for levee bond funding.

CALFED Reauthorization Bill. Under this bill, the U.S. Army Corps of Engineers was appropriated $90 million as a short-term solution targeting the most vulnerable Delta levees. Actions could be taken to re-direct these funds to critical regions of the Delta levee system.

In a letter, dated September 6, 2005, to the Army Corps of Engineers, U.S. Senator Dianne Feinstein (D-San Francisco) and Rep. Richard Pombo (R-Tracy) pointed out that $90 million had been included in the CALFED reauthorization bill as a short-term solution targeting the most vulnerable Delta levees. The letter invited the Corps to work with California to determine the level of funding necessary for a long-term solution. Days later, Governor Arnold Schwarzenegger suggested that the Corps be given the specific authority to pursue a comprehensive and sustained effort, including: a project targeting urban areas along the Sacramento River; a six-month study to address critical levee stability reconstruction projects; and launching a Delta Risk Management Strategy to focus long-term funding toward the most critical levee areas.

A substantial portion of the $90 million in federal funding should be re-directed to critical regions of the Delta, based on a DRMS approach.

Levee Funding – Potential Additional Funding Sources

A number of other funding sources may be available from entities whose infrastructure traverses the Delta and is influenced by the vulnerability of Delta levees. Utilization of such sources would be consistent with the principle of beneficiary pays. These may include water utilities, railroads, state and local highways, natural gas utilities and electrical utilities.

Recent Legislation

AB 1200. On October 6, 2005, the Governor signed AB 1200 by Assemblyman John Laird (D-Santa Cruz) which calls for a joint study by DWR and the Department of Fish and Game to report back to the Legislature by January 1, 2008, on the potential impacts on water supplies derived from the Sacramento-San Joaquin Delta resulting from subsidence, earthquakes, floods, changes in precipitation, temperature, and ocean levels and a combination of those impacts. In his signing message, the Governor said the study would complement efforts already under way by his office.