Exhibit B

U.S. Army Corps of Engineers Vegetation Removal Policy Effects
on Flood Risk Reduction Projects

April 12, 2012

The U.S. Army Corps of Engineers (USACE) vegetation policy, Engineering Technical Letter 1110-2-571 (ETL), continues to substantially impact flood risk reduction programs and projects conducted by or with the DWR Division of Flood Management's Flood Projects Office (FPO), Flood Maintenance Office (FMO), and Central Valley Flood Protection Board (CVFPB). The ETL is anticipated to substantially impact future USACE, FPO, FMO and CVFPB programs and projects to improve, repair, and maintain levees in California. Programs that have had projects blocked, delayed, or had substantial cost increases due to the USACE vegetation policy include the USACE/CVFPB Studies Program, USACE/CVFPB Projects, Early Implementation Program (EIP), Small Erosion Repair Program (SERP), and CVFPB PL 84-99 2005 – 2006 Levee Repairs. This summary is a compilation of several FPO, FMO, and CVFPB programs and projects that have been adversely affected by ETL 1110-2-571 since 2010. These projects are listed in Exhibit B, Table 1 with estimated costs for compliance with the vegetation ETL. A previous compilation, "*The Corps' Vegetation Removal Policy: Implementation Problems*," was provided as part of a letter from US Congress members to the Honorable Jo-Ellen Darcy on February 15, 2011, (Attachment 1).

It is difficult to estimate a general unit cost per mile for the incremental costs of ETL compliance on U.S. Army Corps of Engineers projects. Costs for vegetation removal and mitigation vary by location and species. In some cases where tree removal would occur along long contiguous stretches, it may not be possible to obtain a Biological Opinion that approves of offsite mitigation, because of the importance of habitat connectivity and because comparable habitat is somewhat scarce and simply may not be available for use as mitigation. A previous DWR estimate to bring levees into ETL compliance throughout the State-federal levee system used approximate unit costs from $7 million per mile on nonurban levees to $22 million per mile on urban levees to cover 5-foot deep excavation, engineering and permitting, levee reconstruction, and placement of a new road.

Compliance costs shown in this exhibit are based on specific projects requiring Corps approval or involvement, and only cover the incremental cost of ETL compliance given that other levee work will already be occurring; hence these costs are significantly lower than the previously estimated cost for solely removing vegetation to bring urban levees into compliance with the ETL, as if no other construction is occurring. These incremental vegetation removal costs for Corps projects generally range from $0.5 million to $7.5 million per mile although outliers are possible.

The projects described in this exhibit fall under USACE ETL vegetation policy requirements for different reasons depending on the type of project and funding sources. For EIP projects that typically are joint DWR and local maintaining agency projects, the nonfederal sponsors need to

obtain Corps approval of the project because they may be requesting Corps credit for nonfederal expenditures on the yet-to-be authorized federal project. For projects initiated by the Corps or undertaken jointly with the Corps, the Corps requires implementation of their own policies which results in a requirement for ETL compliance (or possibly a variance) for their projects.

The projects listed below are intended to reduce flood risks to people and structures. The Corps' vegetation policy has generally resulted in the following adverse effects:

- delayed projects, resulting in prolonging of significant flood risk
- cumulatively added to other constraints (e.g., structural encroachments), further limiting options for structural improvements
- resulted in substantially costlier projects
- resulted in jeopardy opinions or adverse responses by resource agencies for conflicts with endangered species laws and regulations

As previously stated, project cost increases attributable to the ETL are substantial, estimated to generally range from $0.5 million to $7.5 million per linear mile of levee. Such substantial cost increases could affect the benefit/cost ratio of projects to the point of making projects infeasible. When projects are delayed, an estimated $200,000 to $300,000 per project is spent by the USACE per year as carrying costs for non-federal participation. More importantly, however, hundreds of thousands of people remain at risk of flooding while these projects are blocked or delayed. While the USACE is working to put a variance procedure in place, the requirements to obtain a variance as proposed to date are so burdensome, costly, and time consuming to complete the necessary investigations and engineering analyses, that the result is that securing a variance under application procedures and criteria as currently proposed would be impossible for many non-federal project sponsors.

The following are some examples of projects that were ongoing or initiated since 2010 that have been adversely affected by the ETL. The degree of impact is dependent on the extent of existing vegetation.

Projects Delayed

Small Erosion Repair Program (SERP)

On January 17, 2007, a Small Erosion Repair Program (SERP) subcommittee of federal and State resource and regulatory agency representatives was formed. The SERP subcommittee would address improving public safety and ecosystem function through reduction in significant delays—as much as several years—in repairing small erosion sites. Delays occur, in part, because of the multiple layers of agency authorizations and levels of interagency coordination required to conduct each repair. The motivation for SERP as a collaborative effort comes from benefits to public safety and the environment by preventing further loss of soil and vegetation, as small erosion sites can become large if they go unrepaired.

The subcommittee has worked supportively to expand the narrow focus of project-by-project permitting, which is costly and time consuming. Through collaborative and proactive identification of mutually acceptable small repair designs, DWR would be able to conduct multiple (up to 15) repairs annually.

Despite five years spent developing SERP, the subcommittee has yet to implement a project. The challenge to satisfy the needs of flood control and the ecosystem has continued to stop progress toward SERP implementation because of the confusion and pending lawsuits that stem from the ETL and the PGL issues. SERP repair templates were developed in line with the Corps' regulations, 33 CFR, Part 208, that recognize vegetation can improve public safety by reducing the potential for levee erosion - "Where practicable, measures shall be taken to retard bank erosion by planting of willows or other suitable growth on areas riverward of the levees." Although these regulations are well understood by all parties, the ETL and PGL issues have created conflict in established Federal and State environmental laws and regulations on environmental preservation. This conflict has delayed the implementation of SERP as follows:

- Delay in authorization due to uncertainty that planting vegetation on the lower water side slope may jeopardize PL 84-99 eligibility.
- For the many legacy levees where there is not 15 feet of space between the levee toe and the water, under the ETL policy, a SERP repair, which uses bioengineering as a way to further prevent erosion, would not be possible.
- Delays in finalizing agreements due to uncertainty in SERP's plan to address plant installation because of conflicting language related to the lower water side toe vegetation allowances between DWR's CVFPP and the ETL/PGL requirements. Vegetation restoration is integral to the program to make these repairs "self mitigating."
- Ultimately, the State's flood damage risk and liability will increase. From a program and project delivery perspective, stakeholders and DWR staff have to consider the impossibility of developing a vegetation variance for SERP. Fulfilling mitigation requirements for SERP will be problematic as Federal enforcement and environmental regulatory directives are in direct conflict.
- SERP delays represent missed opportunities to support public safety issues while supporting key wildlife agencies concerns, including the U.S. Fish and Wildlife Service (USFWS), the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS, now commonly known as NOAA Fisheries), and the Department of Fish and Game, that have expressed they want to minimize impacts in the first place, not just compensate for those impacts after they have occurred.

West Sacramento (WSAFCA) – Southport

This is a levee improvement project along the Sacramento River on the southeast edge of West Sacramento. The project was delayed due to extended negotiations related to the determination of the baseline conditions, and to investigate the feasibility of alternatives. Alternatives that were analyzed include fix-in-place, and two combinations of setback levees

and adjacent levees on the land side of the existing levee. Vegetation on the levees was one of the baseline conditions contributing to the delay. In part because of the existing vegetation on the levee, the fix-in-place alternative is the most costly, because it adds $1.5 million in mitigation cost above the least cost alternative, and potentially $15.2 million added construction costs above what the cost would be if the fix-in-place alternative were chosen and the trees permitted to stay. The fix-in-place alternative has been discarded in favor an alternative that avoids the need to remove the trees.

Projects with Cumulative Constraints

American River Watershed South – American River South Levee to Sacramento River South of the Confluence (Pocket Area)

The Pocket Area, part of the American River South study area, is characterized by heavily vegetated levees on the water and land sides. However, like other local levee sites such as Natomas, the Pocket Area also includes a high number of residences and other encroachments that are too close to the toe of levee to cost-effectively allow for building an adjacent levee. As such, vegetation removal would be required for attempted compliance with the USACE vegetation ETL. These additional funds would be spent for mitigation and tree removal and levee reconstruction at the expense of special status species, habitat, viewsheds, and may still not allow complete compliance due to the proximity of residences near or at the toe of the levee on the landside.

In the Pocket area, we would estimate that the 12 mile heavily vegetated section of the entire 18.5 mile project contains about 90 acres of waterside vegetation and 70 acres of landside vegetation (almost all of which is located in the levee section). Assuming a 3:1 mitigation ratio with off-site locations for the waterside vegetation ($80,000 per acre) and use of the American River Parkway for the landside vegetation ($50,000 per acre), the total cost for mitigation is estimated to be $10,700,000. Tree removal and levee reconstruction costs for all trees are estimated to be $500,000 per acre or $80,000,000. The total cost of compliance with the tree removal policy is thus estimated to be to $90,700,000 or about $7,500,000 per mile.

Substantially Costlier Projects

American River Watershed - Natomas Basin Reaches A-C (East Levee of the Sacramento River)

The Variance to the USACE ETL 1110-2-571 for the Natomas Area was the first variance approved under the ETL. It enabled compliance with Federal and California environmental laws that protect rare riparian habitat resources. To preserve the riparian habitat and trees, the system was redesigned with widened levees having a minimum 44 ft-wide crown span from waterside hinge point to landside hinge point. While considered a successful approach for Natomas, the approach required a substantial increase in time and costs. The total cost for achieving the widened levee approach over the 18 mile distance was approximately $7 million per mile, which excluded conflicts with residences and real estate acquisition which would have

significantly increased the costs beyond $7 million per mile. Work included raising pumping facilities, relocating structures, installing cut-off walls and seepage berms, etc.

SAFCA has estimated that in the case of Natomas, compliance with the tree removal policy would have required excavation and removal of approximately 140 acres of trees and other woody vegetation on the waterside of the Sacramento River east levee in addition to the 80 acres of trees that are being removed from the landside of the levee. The project calls for mitigating for the landside removals at a 3:1 ratio (total of 240 acres of mitigation) at a cost of about $50,000 per acre. It is assumed that a similar ratio would have been required for removal of waterside trees (total of 420 acres of mitigation). However, since the mitigation would likely have been accomplished through a mitigation bank outside of SAFCA's jurisdiction, the cost per acre could have been as high as $80,000 per acre. Based on these estimates the total cost of mitigation would have been $45,600,000.

Preliminary estimates were that it would cost about $500,000 per acre to remove trees from the levee section (including planning, engineering and design costs, excavation costs, and the cost reconstructing the levee following removal). The cost for removing trees from the landside toe of the levee would be about $100,000 per acre, since the vast majority of the landside trees were outside the levee section., This means that the total cost of tree removal activities would been about $78,000,000. Thus, the total cost of mitigation and removal for the 18.6 miles of the Sacramento River east levee would have been $123,600,000 or about $6,600,000 per mile.

American River Watershed North Reach A (North bank of the American River from Campus Commons Golf Course to 9.5 miles upstream) and Natomas Basin Reaches H and I (Levees of the Natomas Basin along the American River and the Natomas East Main Drainage Canal)

Vegetation removal is also required under ETL 1110-2-571 in Natomas Basin Reaches H and I. Reach H encompasses approximately 4.5 miles of the west levee of the Natomas East Main Drainage Canal (NEMDC) between SAFCA's NEMDC Pumping Facility and Northgate Boulevard. The waterside of this levee contains a few dozen trees that contribute to the shaded riparian habitat values that sustain protected anadromous fish populations in the Sacramento River system during springtime high water conditions. SAFCA sought to bring these trees within the scope of the Variance by performing an engineering analysis demonstrating that even if the trees were toppled by high winds during a 200-year flood event, the affected levee cross section would still meet USACE's minimum levee embankment and foundation stability standards. Notwithstanding this analysis, USACE concluded that the Variance would not be extended to include Reach H and the waterside trees in this reach will be removed as part of the project.

Although the number of trees at issue in Reach H is small, the conclusion that these trees could not be covered by the Variance is significant because this levee has a cross section that is typical of 60 miles of project levees in the Sacramento area outside Natomas: 20-foot crown width, 2:1 landside slope, and 3:1 waterside slope with no room for over-widening. Even with an engineering analysis showing that existing vegetation would not lead to levee failure under extreme conditions, trees on these levees will presumably not be eligible for a variance.

Reach I encompasses the north levee of the American River from Northgate Boulevard to its junction with the east levee of the Sacramento River. This levee section was over-widened in previous years to accommodate a roadway on the crown which now exceeds 44-feet in width. As a result, trees on the waterside slope of the levee were deemed eligible for the Variance. The project nevertheless calls for removing approximately 5 acres of trees along the landside toe of the levee. Mitigation for these trees at a 3:1 ratio is expected to cost $750,000.

American River North Reach A encompasses the north levee of the American River approximately from the golf course to the east of the river at Sacramento State University to approximately nine miles upstream. This levee section is flanked by residences close to the levee landside and trees along the water side of the levee. Improvements to the levee were recently completed with USACE involvement, and vegetation was retained. The USACE has subsequently indicated the vegetation previously deemed acceptable must now be removed. There is little room on the land side for over-widening in order to avoid vegetation removal on the water side of the levee.

South Sacramento County Streams Project and Vegetation Challenges at the North Beach Lake Levee

The South Sacramento County Streams Project was initiated in 2005 by entering into a Project Corporation Agreement with the USACE and included multiple features, including the North Beach Lake Levee. Work on the North Beach Lake Levee was designed and constructed in concert with USACE. This work included leaving existing vegetation on the levees. Part of the work was to place a floodwall (1200 LF), in lieu of elevating the existing approximately 1200 foot-long levee due to the USACE's interest in keeping existing vegetation on the levee.

Subsequently the USACE Readiness section determined that the North Beach Lake Levee was out of compliance with the vegetation ETL 1110-2-571 due to the retained vegetation. The USACE desires to turn over this separable element of the project; however the Local Sponsors are hesitant to accept the project and its O&M responsibilities given the USACE's determination that the vegetation must be removed. Initial estimates vary from $2.5 million to $8.8 million to make the levee compliant with the USACE vegetation criteria.

SAFCA, which is the local sponsor, and DWR desire to preserve project funding for more critical project features that have yet to be completed, including levees, floodwalls, and other improvements. An expenditure of $2.5 million to $8.8 million beyond what has already been spent could mean expenditure of an additional $875,000 to $3,080,000 in non-Federal Sponsor funds. Non-Federal funds are already limited, especially at the local sponsor level.

In January 2012 DWR sent a request to the USACE stating its position on vegetation, in light of the Draft CVFPP. DWR's position is stated in the plan, a life-cycle management approach is proposed in lieu of clear cutting of vegetation. DWR requested that the project be put on hold until the final CVFPP is completed and adopted by the CVFPB in July 2012.

Projects with Endangered Species Constraints

Reclamation District 17 – 100 Year Seepage Project - Phase III

The ETL has significant economic impacts on the RD 17 100-Year Seepage Project (Phase III). The National Marine Fisheries Service (NMFS) submitted comments dated October 7, 2011 on the draft Environmental Impact Statement/Environmental Impact Report (EIS/EIR) stating that full implementation of the ETL without an approved amount of setback levees to open floodplain habitat as part of the proposed Phase 3 Project will lead to unmitigatable impacts to federally listed species and designated critical habitat. It appears that some setback or widened levee will be required to reduce the removal of waterside vegetation and to enable on-site habitat mitigation including planting of additional waterside riparian trees. The ETL requirements are expected to add $3 million to $4 million in costs for construction and over $1 million for administration, rights of way and permitting. Off-site mitigation of riparian forest for other projects has been purchased for $60,000.00 per acre. If off-site mitigation is allowed the extra cost could be in the range of $1 million.

PL 84-99 2005 – 2006 Levee Repair Sites

As a result of the December 2005 and January 2006 storms, several federal levees were damaged, and local sponsors, predominantly the CVFPB, submitted requests for rehabilitation assistance for over 300 sites. Under the authority of PL 84-99 and this USACE program, all slopes were rehabilitated with riprap by January 2009 to structurally restore them to pre-flood conditions. The USACE ETL 1110-2-571, including the PGL variance policy, has thus far constrained the ability to implement the important repairs.

Placement of riprap is considered a problem by environmental resource agencies in that it prevents the future propagation and growth of shaded riverine aquatic (SRA) cover habitat. As a result, the National Marine Fisheries Service (NMFS) required approximately 30,000 linear feet (lf) of SRA cover habitat to be planted as mitigation along many of these sites. The variance process for these sites alone was arduous and time consuming. It took nearly three years to prepare and obtain the variance, and now NMFS is threatening to increase the mitigation by approximately 10,000 lf if work is further delayed.

With the variance in hand in September 2011, the prescribed vegetation management practices are requiring expenditures of limited resources for actions expected to provide little to no benefit to public safety. The specified management of willow species may actually exacerbate the difficulty to inspect levees, at the same time creating a State obligation that will require obtaining permits from various resource agencies and possibly mitigation to comply with the State and federal Endangered Species Acts and the Magnuson-Stevens Act. The variance language could result in resistance from the resource agencies in providing future flood control with a no jeopardy opinion.

Substantial money has been spent to get the vegetation variance in order to enable the required mitigation plantings. The variance has potential to be precedent setting, affecting future State maintenance requirements. The required maintenance actions to be included in plans is problematic in that it may represent significant costs related to the expectation of a

high level of annual vegetation maintenance. The maintenance requirements are also imposed on the State without having the resource agencies' support yet. The annual costs for the State may be significant if it means the State must coordinate and possibly mitigate for the maintenance actions annually required to be in compliance with this vegetation variance.

EXHIBIT B - Table 1

USACE Vegetation Issues on Central Valley Levees - Potential Cost Impacts
Preliminary Cost Estimate for Selected Projects, +/- 50% Accuracy Just for Compliance

Project	ETL Compliance Costs for Vegetation ($0.5M - $7.5M Per Mile of Levee)	COMMENTS	Sub-Totals ($, Million)
Small Erosion Repair Program (SERP)	Data not available	Repairs anticipated at up to 15 sites per year at locations yet to be determined; costs will vary depending on site conditions.	TBD
West Sacramento (WSAFCA) - Southport	5.6 miles	Because of the high cost of compliance, the local sponsor is considering an alternative that avoids the need for removing trees.	15
American River Watershed South – American River South Levee to Sacramento River South of the Confluence (Pocket Area)	18.5 miles	Heavy vegetation areas are along the south levee of the American River, and east levee of the Sacramento River south of the confluence.	140
American River Watershed - Natomas Basin Reaches A-C (East Bank of the Sacramento River)	18 miles	East Bank of the Sacramento River. Tree removal was avoided by constructing a new levee on the land side of the existing levee.	120
American River Watershed North Reach A (the north levee on the American River from the Campus Commons Golf Course to 9 miles upstream) and Natomas Basin Reaches H and I (Levees of the Natomas Basin along the American River, and the Natomas East Main Drainage Canal)	15.5 miles	Heavy vegetation areas include areas along the north levee of the American River, in between the Sacramento River and the easternmost stretch of Reach A of ARN.	40
South Sacramento County Streams Project and Vegetation Challenges at the North Beach Lake Levee	1 mile	Alternative proposals varied in value from $2.5M to $8.8 M, and varied in scope from removing vegetation completely, to constructing a setback levee. DWR requested a hold on all vegetation work on this stretch of levee until after the final CVFPP was approved in July 2012.	4
Reclamation District 17 - 100 year Seepage Project - Phase III	16 Miles	The ETL impact appears to be prohibition of the project as proposed. Coordination with the NMFS indicates that full compliance with the ETL will lead to un-mitigable impacts to federally listed species and designated critical habitat.	16
PL 84-99 2005 – 2006 Levee Repair Sites	3 miles		3
TOTAL Levee Miles	**77.6 miles**	**PRELIMINARY COST ESTIMATE TOTAL:**	**338**

Footnotes:
1) Vegetation removal is for trees of 4 inches or greater diameter at breast height and includes sub-surface root removal and restoration of the levee to ETL standards.
2) Urban levee compliance is likely to be highly impacted by adjacent real estate issues unknown and not included in this preliminary estimate.
3) Habitat mitigation costs for some of the projects are undefined, unknown and not included in some of these preliminary estimates.
4) Lightly vegetated levees require removal of trees and repair to levees, or other methods of compliance with the ETL, plus mitigation for the loss of riparian habitat. Costs are estimated to be $1M linear mile of levee with respect to the vegetation compliance costs.
5) Moderately and densely vegetated levees generally require widened levees at about $7 M per levee mile as the more cost-effective approach to attempting to comply with the ETL, when feasible to do so because mitigation costs and levee repair costs are then assumed to be higher than widening the levee.

Congress of the United States
Washington, DC 20515

February 15, 2011

The Honorable Jo-Ellen Darcy
Assistant Secretary of the Army (Civil Works)
U.S. Army Corps of Engineers
108 Army Pentagon, Room 3E446
Washington, DC 20310-0108

Dear Assistant Secretary Darcy,

Thank you for your December 16, 2010, response to our letter concerning the Army Corps of Engineers Levee Vegetation Policy and its application in California. We appreciate your quick response and your continued commitment to our collaborative partnership in the State of California. We also wish to acknowledge that the Corps of Engineers (Corps) is a critical partner with the State of California and local agencies in protecting public safety, and we value the many projects and programs produced by this successful partnership. There are, however, substantial issues that must be resolved before the Corps can successfully implement the Vegetation Policy as it is currently written.

We recognize and appreciate the Corps' critical role in the California Levees Roundtable (Roundtable) process and the successful development of the February 2009 California Central Valley Flood System Improvement Framework. Unfortunately however, the Roundtable process has been unable to resolve inherent conflicts in implementing the Vegetation Policy, requiring a reformulation of the Roundtable process and participants. Although we appreciate the Corps' decision to grant a Framework-based variance for the Natomas area, this process and resolution are not practical for the rest of California. In spite of these issues, we believe the Roundtable holds great promise and look forward to the vital participation of Corps headquarters in this process.

We are pleased that the Framework could someday serve as a model for other states, and we encourage the Corps to extend this model to other areas of California. Our local agencies along the California coast, within the San Francisco Bay Area and in semi-arid Southern California are grappling with implementation issues that differ from those in the Central Valley. We ask that the Corps develop a way to work with California State and local agencies to identify and address regional implementation issues with the Vegetation Policy.

For many decades, Corps practice has been to protect and encourage woody vegetation on many levees in California. This practice is in stark conflict with the current Vegetation Policy. For example, there are levees that were designed and built by the Corps to include vegetation and, if properly maintained, should therefore be exempt from the Vegetation Policy. In addition to conflicts with federal, state, and local statutes and policies, California flood protection agencies are facing difficult fiscal challenges in implementing the Vegetation Policy. Implementation costs often exceed acceptable cost/benefit standards. Agencies also question the wisdom of

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spending their limited funds on vegetation when much higher risk factors should be prioritized instead. Attached are a few examples of the implementation issues faced by California, as described by the California Department of Water Resources.

We again appreciate the Corps' continued willingness to collaborate with California. We ask the Corps to:

1. Delay finalization of the Vegetation Variance Policy
2. Continue to review stakeholder comments and revise the policy to address them.
3. Continue with the Roundtable in the Central Valley and work through the identified implementation issues
4. Establish a similar mechanism for other areas of California to address implementation issues unique to those areas

Finally, we request a report from you on the Corps' progress on these endeavors by this April.

Thank you for your time and consideration. We look forward to your reply.

Sincerely,

DORIS MATSUI
Member of Congress

GEORGE MILLER
Member of Congress

JOHN GARAMENDI
Member of Congress

JERRY McNERNEY
Member of Congress

LOIS CAPPS
Member of Congress

ANNA ESHOO
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LUCILLE ROYBAL-ALLARD
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MIKE THOMPSON
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GRACE NAPOLITANO
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PETE STARK
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HOWARD BERMAN
Member of Congress

MICHAEL HONDA
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LAURA RICHARDSON
Member of Congress

LYNN WOOLSEY
Member of Congress

BARBARA LEE
Member of Congress

JOE BACA
Member of Congress

February 2011

FloodSAFE CALIFORNIA DEPARTMENT OF WATER RESOURCES

THE CORPS' VEGETATION REMOVAL POLICY: IMPLEMENTATION PROBLEMS

The California Department of Water Resources (DWR) values the Corps as a key partner in meeting the shared objective of reducing flood risk. DWR also recognizes the difficulties inherent in implementing a national vegetation policy and variance process for legacy levee systems. Implementation problems caused by Corps vegetation policy extend well beyond the loss of Public Law 84-99 eligibility, and pose grave long-term consequences. Following are some examples of how Corps vegetation management policies adversely impact important flood risk reduction efforts in California.

Critical Levee Repairs

Since 2006, DWR has collaborated with the Corps in repairing 117 critically damaged levee sites throughout the Central Valley, at a cost of approximately $350 million. These sites were designed and constructed through a close collaboration of the Corps, State and federal regulatory agencies, DWR, and local maintaining agencies to incorporate vegetation into levee repairs to satisfy State and federal environmental acts (i.e., California Endangered Species Act, federal Endangered Species Act and Clean Water Act). Currently, the Corps Sacramento District (District) is assessing the vegetation compliance on these sites. Preliminary results from the assessment indicate that these vegetation features (onsite mitigation) are now noncompliant with Corps vegetation policy, and therefore require new consultations, retroactive construction, and mitigation. DWR believes that these sites are in compliance with the Central Valley Flood System Improvement Framework (Framework), which has precedence over Corps vegetation policy. In order to comply with the Corps' vegetation policy, much of the onsite mitigation vegetation would need to be removed, obligating the District to re-consult under Section 7 of ESA with the National Marine Fisheries Service and the United States Fish and Wildlife Service. DWR estimates the construction and mitigation costs to comply with Corps vegetation policy for 117 sites to be well over $200 million. It would be fiscally and environmentally irresponsible to expend such an enormous amount of public funds to remove these safe, carefully designed vegetation features without a commensurate, demonstrable increase in public safety.

Natomas Levee Improvement Program

In 2010, the Sacramento Area Flood Control Agency presented supporting data in the format of the Corps' draft Policy Guidance Letter for Requesting a Variance From Vegetation Standards for Levees and Floodwalls (PGL) to allow 23 trees to remain on the lower 1/3 waterside levee slope of the west levee of the Natomas East Main Drainage Canal between levee miles 0.3 and 1.1, with the understanding that the Corps' review and approval process would be conducted in accordance with the Framework. DWR reviewed SAFCA's analysis and found it to be comprehensive and conservative and in accord with the Framework. However, the Corps denied the variance, as stated in their June 16, 2010 letter, for reasons that appear to be based on policy interpretation or subjective judgment rather than engineering analyses. Without a repeatable, consistent variance process founded on sound engineering, science and objective technical analysis, it is not possible for either non-federal agencies, or for the Corps itself, to plan and finance individual or system-wide projects. Even in the short-term of the Framework, the lack of a consistent variance process carries huge impacts for many flood risk reduction projects and programs currently underway in California's Central Valley.

West Sacramento Environmental Impact Report/Draft Environmental Impact Statement

The recent issuance of the West Sacramento Levee Improvement Project Draft EIR/DEIS highlights problems with implementation of the Corps vegetation policy that are typical of similar situations throughout the Central Valley. The West Sacramento document addressed environmental impacts of two pending discrete projects, the West Sacramento CHP Academy and The Rivers projects, as well as programmatic impacts of the longer term

plan to invest $450 million to correct deficiencies in other portions of levees protecting West Sacramento. The planned programmatic activities involved large areas with substantial numbers of mature trees on levees; the potential impacts from complying with the new vegetation policy in these areas would be major. The Corps-led DEIR/DEIS was initially written from the perspective that compliance with new Corps' vegetation policy is unavoidable, so long-term impacts from the planned programmatic levee improvements would be significant. DWR and DFG objected to this approach as unreasonable. Accordingly, the final EIR/EIS was re-written to focus primarily on the two immediate projects, and to propose ways to meet the Corps' vegetation policy without the major environmental effects of large-scale removal of trees from levees for the longer-term levee repair program. This was proposed to be achieved by (1) following the vegetation retention criteria spelled out in the Framework; (2) complying with a new policy that will replace the Framework when it expires but has similar provisions allowing vegetation to remain on levees where public safety is not endangered by the presence of trees; or (3) obtaining a variance to the Corps' vegetation policy that would allow the trees to remain. All three approaches require substantially more flexibility than existing and proposed Corps vegetation policy. Exactly how future West Sacramento Project levees will be improved without the anticipated severe environmental and financial impacts of woody vegetation removal is not resolved, but merely deferred. The Corps' current vegetation policy and associated variance procedures have never been analyzed in an EIS, nor addressed in any biological opinions, so it is unknown what environmental protections and mitigation will be required when they have been applied and evaluated for their environmental impacts.

Mid-Valley Area Levee Reconstruction Project

This project includes levee reconstruction on the Knights Landing Ridge Cut and the Sacramento River to remediate stability and seepage issues. Sites along the Sacramento River are considered "legacy levees" which, according to the Framework, are eligible for regional variances or engineered alternatives. Levees along the Ridge Cut have relatively little vegetation, while the levees along the Sacramento River have considerable vegetation. Without analyzing the history of the levee, its vegetation, the existing variance, and maintenance practices, the Corps now considers the vegetation to be deferred maintenance, and the costs associated with removal and mitigation are deemed to be ineligible for federal cost-sharing. It is likely that the project will be halted, as the nonfederal sponsors will be unable to certify financial capability. Many levee reconstruction projects planned for other areas in the Central Valley will likely encounter the same fate.

Central Valley Flood Protection Plan

A system-wide approach is needed for the Central Valley Flood Protection System in order to optimize flood risk reduction and environmental enhancement objectives. Such a system-wide approach will likely include levee structural and maintenance standards tied to risk of damage to life and property, life cycle management of existing levee vegetation, research, and adaptive management. Performance standards and criteria for levees will necessarily vary depending on these many factors, thus the CVFPP cannot be implemented within the rigorous constraints of Corps vegetation management policy as currently written.

Wildcat and San Pablo Creeks (San Francisco Bay Area)

The Corps planned, designed, and constructed the Wildcat and San Pablo Creeks project levees to include vegetation for mitigation, habitat, and community benefits. In addition, the Corps Operations and Maintenance manual requires the Contra Costa Flood Control District to maintain the vegetation such that these benefits are sustained. The environmental regulatory agencies have stated in a letter they will not grant permits to remove the trees in the creeks. The local community does not support removal of the trees, and their limited revenue stream only provides for basic maintenance. The Contra Costa Flood Control District estimates a cost of $300,000 per levee mile to perform the extensive analyses necessary to apply for a variance and $1 million per levee mile to remove the vegetation and mitigate; this cost is well beyond the limited resources of the District.