August 6, 2007

**Questions and Answers**
**Dam Safety Improvements to Dikes 4, 5, and 6**
**Folsom Dam and Reservoir**

The following information is in response to questions presented by residents of the Mooney Ridge neighborhood both during and after a community meeting sponsored by the Granite Bay Municipal Advisory Committee (MAC) on July 11, 2007. Estimates of cost, materials quantities, numbers of truck loads, and the like are generally expressed as ranges to reflect varying assumptions and best available information at this time. The Bureau of Reclamation is continuing to optimize key aspects of the project to further reduce impacts and expedite completion. Estimates, schedules, and other information are therefore subject to refinement. Reclamation will post periodic updates to this document on our web site (http://www.usbr.gov/mp/jfp/index.html) as the project progresses.

## Purpose

1. Why is Reclamation proposing to work on Dikes 4, 5, and 6?

A: The purpose of the project is to bring the dikes up to the current state of the art in dam design. The dikes were originally constructed in the1940s - 1950s without filter and drain elements. Installing downstream filter and drain elements are now recognized as key defensive measures for preventing internal seepage erosion within the dikes. Uncontrolled seepage and erosion could lead to potential dam failure and a catastrophic release of the reservoir into communities below the dike.

2. Why now?

A: Reclamation evaluates all dams and dikes on a systematic basis in compliance with the Reclamation Safety of Dams Act of 1978 (Public Law 95-578) as amended. The evaluation process is continually updated to reflect new and changing design and public safety requirements and hydrologic and geologic conditions. A comprehensive facilities review of Folsom Dam conducted in 2000 identified the need for expedited action in several areas to reduce the risk to public safety. Reclamation has been engaged since that time in detailed follow-up analysis, environmental documentation, and coordination with agencies with contiguous jurisdiction. At this point, Reclamation has identified the preferred alternative and secured and programmed the required funding to complete this work. Reclamation is currently preparing to award a construction contract and complete the work as rapidly as possible to minimize impacts and public inconvenience.

**Description**

3. What does the work at Dikes 4, 5, and 6 involve?

A: Basically, the project requires removal of some of the existing downstream shell of each dike, placement of sand and gravels to act as filter and drain elements, and replacing with a larger shell. In support of that work, some specialized materials will be obtained commercially and brought on site by trucks. Supplemental shell material will come from a limited, in-reservoir borrow site near Dike 4.

4. Does this work include a raise of the dikes?

A: Reclamation is not raising any dikes to complete its dam safety work. The U.S. Army Corps of Engineers (Corps) expects to construct a raise of up to 3.5 ft of all embankments once the new auxiliary spillway (the "Joint Federal Project") and other dam safety projects at Folsom Dam and Reservoir are completed. Questions regarding the raise should be directed to the Corps' Sacramento District.

5. How would you excavate the material?

A: Borrow material would be excavated using a combination of traditional construction equipment (trucks, bulldozers, excavators, and or loaders) during the off-peak recreation season when the reservoir is low. The sand and silty material on top will be removed from the borrow area and stockpiled. The decomposed granite material under the sand and silty material is the material needed for construction. Reclamation will excavate the required amount of decomposed granite and haul it to the dikes for stockpiling and placement during the modification process. Once that material is removed, the terrain will be resloped to a natural configuration, and the sand and silty top material will be replaced back over the top of it. The reservoir will eventually rise above the area in its normal yearly operating range. As that occurs, wave action will return the site to its essentially pre-removal condition for safe use again as a recreation area.

6. Will the work at Dikes 4, 5, and 6 involve any dredging operations?

A. No.

7. Why will the work at Dikes 4, 5, and 6 take 9 years to complete?

A: It won't. The total timeframe for completing all dam safety and flood damage reduction improvement projects at Folsom Dam and Reservoir is 2007 - 2021. The specific dam safety improvements to Dike 5 will take approximately 8 - 9 months within that total period. The principal construction activities at Dike 5 will occur over about a 6-month period from fall 2008 into early spring 2009. Specific dam safety improvements to Dikes 4 and 6 are currently scheduled for sometime in the 2013 - 2015 timeframe and will also take about 9 months to complete with about 6 months or less to complete the significant impact activities. Borrow activities associated with the work should be

limited to 10 - 16 weeks within each particular construction period (Dike 5 followed by Dikes 4 and 6). Between the two construction periods, the area will be fully available to the public as it is currently enjoyed.

**Public Involvement**

8. What process did you follow for public involvement?

A: Public involvement for this project was conducted in accordance with the National Environmental Policy Act (NEPA).

9. Why did you do just the bare minimum for public involvement considering the impacts of the project?

A: Reclamation significantly exceeded the minimum for public involvement. NEPA only requires one Public Hearing after the environmental document is complete and several notices to the Federal Register during the process and before the Record of Decision is signed. Reclamation policy encourages a higher level of public involvement than the NEPA minimum. For this reason, and due to the unprecedented scope and complexity of the project, Reclamation and the Corps conducted significant additional meetings, briefings, and information exchange with the general public and elected officials. For example:

- Reclamation began the public involvement process in mid-December 2005 with Public Scoping Meetings held in Granite Bay, Folsom, and Sacramento. The meetings were announced in Press Releases MP-05-139 on November 29 and MP-05-140 on December 1. Articles on the meetings appeared in the Sacramento Bee, the Folsom Telegraph, and Rocklin & Roseville Today.

- Press Release MP-06-120 on November 30, 2006, announced the release of the project's Draft Environmental Impact Statement/Environmental Impact Report (EIS/EIR) and a 60-day public review and comment period. Press Release MP-07-005 on January 19, 2007, announced a 1-week extension of the comment period. Articles on the Draft EIS/EIR were in the Sacramento Bee, Folsom Telegraph, El Dorado Hills Telegraph, Auburn Journal, and KXTV-TV News 10 Good Morning.

- Press Release MP-06-130 on December 21, 2006, announced two public hearings on the Draft EIS/EIR held on January 9 and 10, 2007, in Sacramento and Folsom. An article on the hearings was published in the Sacramento Bee.

- Press Release MP-07-022 on February 14, 2007, announced a public information meeting held February 20, 2007, in Folsom. Information on the meeting was in the Sacramento Bee and Folsom Telegraph, on the City of Folsom's website, and on KCRA Channel 3 morning news.

• Press Release MP-07-045 on March 20, 2007, announced two public information meetings held April 4 in Folsom and April 5 in Granite Bay. Reclamation purchased and placed display ads in the Sacramento Bee, the Folsom Telegraph, and the Granite Bay Press-Tribune on March 28, 2007, to announce the meetings.

• A Commentary, "Joint Federal Project Offers Flood Control," was published in the Sacramento Bee on March 29, 2007. The article included notification of additional public meetings in Folsom on April 4, 2007, and Cavitt Junior High School in Granite Bay on April 5, 2007.

• Press Release MP-07-051 on March 30, 2007, announced release of the Final EIS/EIR with public comment due by April 30, 2007. Information on the Final EIS/EIR was published in the Sacramento Bee, the Folsom Telegraph, and on the City of Folsom's website.

• Press Release MP-07-072 on May 3, 2007, announced the release of two Records of Decision (ROD): a combined ROD by Reclamation and the Corps for the Joint Federal Project and a Reclamation ROD for dam safety and security work to be performed at Folsom Dam and Reservoir. Articles on the RODs were published in the Sacramento Bee and Folsom Telegraph.

• On July 11, 2007, Reclamation participated in a meeting of the Granite Bay Municipal Advisory Committee (MAC).

10. Why weren't local residents notified?

A: Since 2005, Reclamation and the Corps have conducted an intensive effort to notify local residents of project activities and plans through the use of numerous press releases to area media, including newspapers and television and radio stations; information on three Reclamation websites; and mail outs of press releases to all individuals, businesses, and organizations on the project mailing list. The mailing list originated as the Corps' "Folsom Bridge Mailing List" and initially contained some 2,800 individuals. Reclamation's mailing list is continually updated as elected officials are replaced, people and businesses move and leave no forwarding address, as forwarding addresses expire, new individuals are added, etc. Currently, the mailing list contains some 2,200 names.

11. Why weren't our elected officials notified?

A: The current mailing list includes representatives from the City of Sacramento; City of Folsom; City of Roseville; City of Rancho Cordova; El Dorado County; Placer County Board of Supervisors; County of Sacramento; Citrus Heights Chamber of Commerce; Orangevale Chamber of Commerce; Folsom Chamber of Commerce; Sacramento Chamber of Commerce; Roseville Chamber of Commerce; Granite Bay MAC; Sutter Street Merchants; Senators Boxer and Feinstein; Representatives Matsui, Doolittle, Lungren, Cardoza, and Miller; State Senators Cox and Ortiz; State Assembly Members Leslie and Wolk; and Governor Schwarzenegger.

12. What else did you do to ensure elected officials were informed?

A. The Partner Agencies - Reclamation, Corps, Sacramento Area Flood Control Agency (SAFCA), and the California State Reclamation Board - conducted regular briefings with local members of Congress and their staffs throughout the project development process. The Partner Agencies likewise briefed staff for the House and Senate authorizing and appropriations committees. Briefings to local government included the Sacramento County Board of Supervisors, the Sacramento Water Forum, Sacramento Groundwater Authority, and representatives of the City of Folsom. Reclamation conducted periodic briefings to Central Valley Project water and power contractors which include the San Juan Water District, the City of Roseville, and Sacramento Municipal Utility District. Unfortunately, in light of the current concerns, the Partner Agencies did not conduct any formal briefings with local Placer County elected officials.

13. Did Reclamation provide adequate notice to the public concerning the project?

A: As of August 1, 2007, Reclamation is aware of the following number of newspaper articles, television news reports, and/or radio newscasts related to the JFP: 17 in 2005, 16 in 2006, and 60 in 2007. Further, the Corps and SAFCA have publicized information on the project in several newsletters: SAFCA in fall 2006 and winter 2007 and the Corps in March 2005. Reclamation, the Corps, and SAFCA maintain websites related to the flood control and dam safety work at Folsom Dam/Reservoir:

(1) Reclamation – http://www.usbr.gov/mp/jfp/index.html
http://www.usbr.gov/mp/sod/projects/folsom/index.html
http://www.usbr.gov/mp/nepa/nepa_projdetails.cfm?Project_ID=1808

(2) Corps – http://www.spk.usace.army.mil/projects/civil/folsom/
http://www.spk.usace.army.mil/projects/civil/americanriverwatershed/

(3) SAFCA – http://www.safca.org/floodRisk/caseStudies.html

Despite these efforts, current concerns by residents of the Mooney Ridge neighborhood underscore that we can always do more.

14. Regardless of who may or may not have been noticed in the past - is it too late to make a difference?

A: No. The NEPA process itself is completed. However, in accordance with the *"Record of Decision, Folsom Dam Safety of Dams and Security Upgrades Projects, Folsom, California"* dated May 1, 2007, Reclamation will establish a forum with local government to ensure continuous communication and information exchange throughout the entire construction period. Reclamation and the Partner Agencies will make every effort to understand and accommodate localized interests within the context of the total project. Until that forum is formally established, Reclamation and the Partner Agencies are prepared to meet with elected officials, individual government agencies, and

community groups for that purpose. The July 11, 2007, Granite Bay MAC meeting is an example.

15. What assurances do we have that the dialogue with the community will continue?

A: Reclamation has committed verbally and in writing to continue to communicate with the interested public throughout the construction period for these critically important dam safety and flood control projects at Folsom Dam and Reservoir.

16. How does an interested party get noticed?

A: Reclamation's Public Affairs Office maintains a mailing list for the project that is continually updated. Any individual, business, or organization who wishes to be added to the list may do so by contacting Public Affairs at 916-978-5100 or e-mailing their information (full name, organization name if applicable, street address, city, state, zip code, and phone number) to jsierzputowski@mp.usbr.gov. A number of other tools will be used including newspapers, local media, the Internet, and call-in numbers.

17. Can we form an advisory committee to help decide the borrow issue?

A: Federal law restricts an agency's authority to establish advisory committees. Reclamation will continue to be responsive to local residents on the borrow issue through their elected representatives as requested. Reclamation is committed to working with local government over the long term to address issues or concerns that arise during construction.

**Environmental Impact Statement/Report**

18. What is the significance of the Environmental Impact Statement/Report?

A: The Environmental Impact Statement (EIS) is a key component of the NEPA process. It requires full disclosure of project impacts, and provides a vehicle for public involvement in the development of the project. An EIS performed under NEPA also satisfies State of California (State) requirements for an Environmental Impact Report (EIR) under the California Environmental Quality Act (CEQA). For this reason, the document is commonly referred to as the EIS/EIR or EIS/R.

19. The EIS/R designates a 1 ½ mile strip of lakeshore almost from Beal's Point all the way past Mooney Ridge as a "borrow" area. Why?

A: As part of the EIS/R process, areas of "*potential*" affect must be evaluated to identify a range of reasonable alternatives. This is an iterative process in which basic requirements are identified and the impacts of reasonable alternatives are analyzed and disclosed. The final selected alternative is approved through the ROD. Detailed

implementation plans are subsequently developed that – to the extent practicable – further reduce impacts within the total area of potential affect.

Reclamation conducted a systematic evaluation through the EIS/R of all reasonable site options for borrow material and methods for transporting the materials to the Dike 4, 5, and 6 area. The total area examined was probably several thousand acres including the 84 acres in-reservoir below Mooney Ridge. By optimizing the operation, and in consideration of concerns expressed by residents of the Mooney Ridge neighborhood, Reclamation will restrict borrow activities to a relatively small area of up to 10 acres. The final, specific 10-acre site is still being determined. However, the location will be confined to some portion of a 20-acre in-reservoir area near Dike 4, in the western sector of the original 84 acres. Please refer to the attached map.

20. What is the Record of Decision? What is the significance of the "ROD"?

A: The ROD is an official document required by NEPA that describes the project, designates the approved alternative, lists significant project impacts, and details the mitigation measures that will be taken to reduce, minimize, or eliminate those impacts.

21. Two RODs were signed for the work at Folsom Dam. Which one applies to the work on Dikes 4, 5, and 6?

A: The *"Record of Decision, Folsom Dam Safety of Dams and Security Upgrades Projects, Folsom, California"*, dated May 1, 2007, applies to the dam safety work at Dikes 4, 5, and 6. In addition, Reclamation and the Corps jointly signed a second ROD on May 1, 2007, and May 3, 2007, respectively titled *"Folsom Dam Safety and Flood Damage Reduction Joint Federal Project."* This second ROD approves a new auxiliary spillway for Folsom Dam.

**Construction Contracts**

22. What is a construction contract?

A. Reclamation develops plans and specifications that are included in a construction contract to tell a contractor the specific technical requirements of a project. Additionally, the construction contract includes the administrative and legal requirements the contractor must meet. The contract for Dike 5 will be a negotiated contract, which allows Reclamation to discuss with the contractor how the work will be accomplished.

23. How do construction contracts for this work relate to the EIS/R?

A. The EIS/R is an umbrella document that covers a reasonable maximum range of project actions associated with different alternatives to ensure (1) these actions are disclosed to the public, and (2) the environmental effects of these actions are analyzed as to the significance of their impacts. The EIS/R establishes the legal and other

requirements and conditions to be met during construction. The details of a specific construction activity are developed subsequent to the EIS/R as part of the plans and specifications for the construction contract. The details are further refined during discussions with the contractor. The final specific actions must be within the scope of the EIS/R.

24. When is the construction contract for this project scheduled to be awarded?

A. The contract for Dike 5 modifications is scheduled for award in fall 2008. The contracts for Dikes 4 and 6 are expected to be awarded sometime in the 2013 – 2015 timeframe.

25. How can the public find out about the final details included in the construction contracts?

A. Reclamation will post the latest information on the plans for Dikes 4, 5, and 6 on its web page (http://www.usbr.gov/mp/jfp/index.html).

**Borrow**

26. Does Reclamation propose to use the entire area identified in the EIS/R for borrow?

A. No. Only up to 10 of the original 84 acres evaluated in the EIS/R near Mooney Ridge would be disturbed for borrow purposes in support of dam safety improvements to Dikes 4, 5, and 6. The final, specific 10-acre site is still being determined. However, the location will be confined to some portion of a 20-acre in-reservoir area near Dike 4, in the western sector of the original 84 acres. Please refer to the attached map.

27. What is the maximum amount of material that could be removed from the Granite Bay/Mooney Ridge beach? Is it 50,000 cubic yards or 150,000 cubic yards?

A: Reclamation anticipates about 40,000 - 60,000 cubic yards would be needed for Dike 5 depending upon how much of the original shell material is free of organic material and can be reused. Designs at Dikes 4 and 6 will be finalized at a later date but are expected to require less shell material. Reclamation will continue to optimize the project in an effort to substantially reduce these quantities. In the meantime, Reclamation estimates that the maximum quantity for all three dikes will be up to 150,000 cubic yards.

28. Can Reclamation prevent the use of the Granite Bay/Mooney Ridge beach as a borrowing site from occurring at all?

A: Yes. Reclamation has discretion to use borrow material from any area evaluated by the EIS/R including any of the 84 acres in-reservoir below Mooney Ridge. Reclamation also has the discretion to secure the material from off-site sources.

29. Were other alternative borrow sites considered?

A. More than 30 alternative sites were evaluated through the EIS/R process.

30. Why weren't any of these other alternative sites selected?

A. Based upon Reclamation's evaluation, the in-reservoir borrow site below Mooney Ridge presented the least impacts area-wide. Only a limited number of the areas within the reservoir have the appropriate attributes, including distance and accessibility, for the required type quantity and quality of decomposed granite required for the work. Of these, the Mooney Ridge area is by far the best source. Other sites, whether in-reservoir or offsite, would have much greater impact on public health and safety; recreation; transportation; economics; and air, noise, and light quality. In addition, other alternatives would significantly increase the cost of the project and potentially delay the construction schedule.

31. The EIS/R shows borrow areas at other places within the lake. Why don't you get the material from there?

A. Please refer to question 30 above.

32. Is this a final decision? Can you still change?

A: Reclamation has the discretion to designate another source of project material other than the in-reservoir site below Mooney Ridge. However, those alternatives significantly increase traffic, air quality, and other impacts to neighboring communities in the area. Other alternatives are likewise far more costly than the current project. Resolution of those impacts would necessarily require involvement by other municipalities, stakeholders, and officials from the surrounding area who would be affected. Reclamation is prepared to participate fully in that process should local government decide to pursue it. Pending a consensus among the participants, Reclamation must necessarily proceed with addressing the public safety risk. However, in response to concerns raised by residents of the Mooney Ridge neighborhood, Reclamation will ensure that all plans, specifications, and contracts associated with the current project incorporate specific requirements for reducing impacts to their neighborhood.

33. How many truck loads of material would need to be delivered if only off-site materials are used?

A: Reclamation currently estimates the total project (Dikes 4, 5, and 6) will involve delivery of up to 3,200 loads of specialized filter material by commercial truck over public roads. Based upon preliminary analysis, Reclamation estimates that delivering 40,000 - 60,000 cubic yards of material to Dike 5 from a source other than the 10-acre in-reservoir site near Dike 4 would require up to 3,200 additional loads resulting in 7,200 additional hours of trucks occupying major traffic routes.

Based upon continuing optimization of the project, Reclamation expects that Dikes 4 and 6 will require less supplemental shell material than previously assumed. Pending completion of the design process, however, Reclamation estimates the maximum quantity necessary for all three dikes to be 150,000 cubic yards. On that assumption, the total number of truck loads necessary to haul the material for all three dikes in could be as high as 9,600 additional loads. Reclamation estimates that hauling the additional material from offsite would put approximately 5,000 lbs of additional Nitrogen Oxide and Carbon Monoxide into the atmosphere per dike (15,000 lbs total), approximately 6 times greater than the current project plan.

34. What types of trucks would be involved?

A: Street-legal dump trucks with trailers are the most common in the area. Within the trucking industry these trucks are called "transfer" trucks, also known as "slam-bangers" due to the noise made when the trailer bed is placed in and out of the main truck bed. This noise factor and the fact that they can carry less weight due to street restrictions increases the number of trucks required, the total number of loads, and the number of hours on public roads contributing to street damage and congestion.

35. What would be the main access routes?

A: Depending upon source of materials, the most likely access routes would be (1) from the Highway 50 corridor through the City of Folsom directly up Folsom-Auburn Boulevard, or (2) from Interstate 80 down Douglas Road through Granite Bay.

36. The EIS/R states that the impacts go away if you use established quarries. Is that the case?

A: The EIS/R does not state that there are no impacts from obtaining the borrow material from established quarries. All options have impacts. The EIS/R compares the impacts of each respective alternative. This process results in a "Preferred Alternative." In this case, the EIS/R analyzed the impacts of obtaining the required material from established quarries in the Sacramento area, Marysville, and several other areas. The analysis concluded that the farther the material was trucked, the greater the impacts to air quality, traffic, and public safety. Those impacts were weighed against obtaining the material from in-reservoir sites at Mooney Ridge, Granite Bay, and Beal's Point. The largest impacts from obtaining the material locally were temporary impacts to recreation, as well as temporary visual impacts. The impacts to recreation and visual resources at Granite Bay and Beal's Point were much greater than the impacts to the area below Mooney Ridge.

37. What is the material and transportation cost for all of the Dike 4, 5, and 6 construction if only off-site material (non-Granite Bay/Mooney Ridge beach) materials are used?

A: Reclamation estimates it would cost an additional $40 - $60 per cubic yard to haul material to the construction site from an off-site source. Based upon this estimate, the total increase in materials and transportation costs could range from at least $500,000 to more than $2 million per dike. In addition, the cost of mitigating air quality impacts by using newer equipment and purchasing emission reduction credits could potentially increase project cost even further. Emission reduction credits are part of a program administered by the California Air Resources Board, in which projects that are not in conformity with air quality requirements may purchase credits to reduce the project's emissions to legal levels. Altogether, the additional cost of trucking up to 150,000 cubic yards of material in rather than using material closer to the job site could range anywhere between $2,500,000 to upwards of $10,000,000.

38. Is cost the only factor in looking at alternatives?

A: Not with respect to the environmental analysis. Under NEPA, the cumulative adverse impact of any alternative is the paramount factor. However, numerous specific impacts were given equal consideration to include public health and safety; air, noise, and dust quality issues; transportation/traffic congestion; environmental and cultural resources; recreation; and time and economics.

Air quality in particular is a more limiting factor than cost. The elevated emissions from trucking the material would most likely put the project out of conformity. If that were the case, the project could not be constructed unless the air quality impacts were extended over a longer period than the current schedule for Dikes 4, 5, and 6. Under certain circumstances, each of the two construction periods could be extended well beyond – even as much as double – the current schedule of 8 - 9 months.

39. When does cost become a factor?

A. Notwithstanding the environmental analysis, cost is always a factor in determining the final design and construction method. Reclamation is confident that we have sufficient Federal appropriations programmed to successfully complete all required dam safety improvements at Folsom Dam and Reservoir. However, appropriations are finite. Cost increases to one component of the total dam safety effort – in this case Dikes 4, 5, and 6 – must generally be offset by funds budgeted for the Joint Federal Project, Mormon Island Auxiliary Dam, or other critical projects. In addition, Reclamation is required by law to recover a portion of all dam safety costs from our Central Valley Project water and power contractors. Reclamation is further required to involve our contractors in key decisions affecting their capital repayment obligation. This involvement would extend to potential overruns in previous cost estimates for dam safety work at Folsom Dam and Reservoir.

40. [Mooney Ridge residents] are willing to help fund the difference in cost between on-site borrow and hauling the material in by truck.

A: The law allows Reclamation to accept contributed funds under certain circumstances for work we are authorized to perform. We suggest a follow-up meeting through the local county supervisor if residents are interested in this option.

41. What is the impact of the "trucking it in" alternative to the project schedule?

A: This alternative would most likely delay the project schedule considering the level of air quality impacts associated with hauling the decomposed granite over longer distances. In the case of Dikes 4, 5, and 6, the project schedule could increase from the current 8 - 9 months per dike to as much as 1 ½ years per dike, thus prolonging the dam safety risk.

42. There is "free dirt" in Wheatland. Why don't you use that?

A. This was suggested by a participant at the Granite Bay MAC meeting on July 11. As a follow-up, Reclamation contacted the developer identified by this participant and was advised they had no knowledge of any "free dirt" in Wheatland. Had this material been available at no cost, of the right type and at within the established construction schedule, it would still have to be hauled 27 miles to Dikes 4, 5, and 6 through the Roseville and Granite Bay communities by way of Douglas Boulevard. The cumulative environmental and cost impacts of this proposal far exceed those associated with the maximum 10-acre in-reservoir borrow site near Dike 4.

43. The Corps' 2002 document indicated borrow material was available from the Peninsula Area and Mississippi Bar. Why don't you use that instead?

A. The document in question is the 2002 "*American River Watershed Long-Term Study Final Supplemental Plan Formulation Report EIS/R*" (Long-Term Study). Reclamation thoroughly reviewed the Long-Term Study and considered Peninsula and Mississippi Bar sites during the NEPA process along with 28 others. Based upon that evaluation, Reclamation concluded the overall impacts of trucking or barging materials from these sites would have extremely high environmental impacts and were not economically viable.

In addition, both the Peninsula and Mississippi Bar areas have significant cultural resources that would have been damaged or lost if borrow was taken form those areas. The Corps had not completed the cultural surveys of either area by the time the Long-Term Study was concluded. The Corps has since removed those areas from consideration.

44. Will the borrow activities affect the ground-water level at homes in the vicinity of the construction?

A: No, there is no geological data to suggest that ground-water levels will be impacted by project construction.

45. When Folsom residents complained, you changed your plan. Why are we being treated differently?

A: The primary issue with Folsom Point was access to the recreation area during construction due primarily due to the conflict between a major construction haul route and the entrance road to the facility. Based upon several public meetings and considering the comments submitted during the public comment period, Reclamation modified our approach to avoid conflict between the haul route and entrance road, thereby providing nearly continuous access to the recreation area throughout the construction period. Reclamation extended this modification to the Beal's Point entrance road to ensure nearly continuous access there as well. Reclamation still reserves the option to borrow material at Folsom Point area. Due to the large amounts of material being excavated from the new auxiliary spillway, we do not anticipate that will be necessary.

The main difference between Folsom Point and Mooney Ridge is that the City of Folsom and nearby residents accepted there would still be impacts due to the magnitude of construction required for the Joint Federal Project and Mormon Island Auxiliary Dam. Residents of the Mooney Ridge neighborhood are effectively asking for zero impacts.

46. Why doesn't Reclamation barge material from borrow areas elsewhere on the lake?

A: Barging was thoroughly evaluated during the EIS/R process and eliminated from consideration primarily because this type of operation would significantly increase the risk to public safety and environmental impacts. Among other requirements, barging would require construction of loading docks at both Mooney Ridge and any alternate in-reservoir borrow site in addition to an extended haul route to move the material from the Mooney Ridge loading dock to the dikes. The additional infrastructure substantially increases the scope of ground-disturbing activities. Basically, all material would require double or triple handling, adding major air quality impacts and cost of the project. Barging also introduces a whole new recreation and navigation impact which is not present with in-reservoir borrow in the 10-acre site near Dike 4.

47. How many barge trips would the work require?

A: Reclamation estimates barging would require 700 to 1,500 barge trips depending upon barge size. Reclamation assumed small, shallow draft barges would be required with a low load carrying capacity due to the shallow, fluctuating nature of the lake and the need to avoid the recreating public during peak season. Barges would have to be custom made at great expense and would require three times the supporting construction equipment to load and haul from an alternate borrow site: one set of equipment at the borrow site, one set at the loading site, and one at the offloading site. Due to the shallow lake level, the material would have to be offloaded onto the reservoir bottom even further out into the lake requiring a longer haul road.

48. What would it cost to barge the material to the Dike 4, 5, and 6 work areas?

A: Preliminary estimates indicate the cost of barging material would be 5 to 10 times higher than the current project (borrow at sites adjacent to the construction work).

49. Is cost the only concern with respect to barging? What else and why?

A: No. In addition to cost, the EIS/R disclosed significant impacts associated with the barging alternative. One primary impact was public safety. The barge traffic would occur in areas that are heavily used by recreational boaters. The risk to public safety was significant enough to discount barging as a viable alternative. The air and water quality impacts were also important factors in eliminating barging from consideration.

**Blasting**

50. Will work associated with Dikes 4, 5, and 6 require blasting?

A: There will be no blasting either as part of borrow activities or any other component of the dam safety improvements to Dikes 4, 5, or 6.

51. How does this relate to the EIS/R which states the work will require blasting?

A: The EIS/R is an umbrella document to cover a reasonable range of project activities to ensure (1) these activities are disclosed to the public, and (2) the environmental affects of these activities are analyzed as to the significance of their impacts. Blasting was covered in the EIS/R for disclosure purposes as a possible option if required. However, Reclamation has since determined that blasting is not necessary to support borrow activities at the maximum 10-acre in-reservoir site near Dike 4 or any other work associated with the dam safety improvements to Dikes 4, 5, or 6.

52. How can you be sure you won't need to blast? The area is full of granite outcroppings and boulders. It seems impossible that you won't encounter this when you excavate.

A: Reclamation conducted extensive site investigations to determine the applicability and availability of this type of material for dam safety improvements to Dike 4, 5, and 6. The investigations involved excavation of at least 6 trenches in the area below Mooney Ridge, 200' in length, 30' wide and 20' in depth, using conventional excavation methods. Suitable areas have been field identified with limited or no recalcitrant outcropping and boulders. These areas will yield sufficient material for the planned dam safety work. Borrow activities will be limited to a 10-acre in-reservoir site near Dike 4 in the western sector of the original 84-acre area evaluated in the EIS/R.

53. When will we know for sure whether you're going to blast or not?

A: Reclamation will provide an assurance that there will be no blasting in our response to a letter from Supervisor Kirk Uhler. Reclamation will further ensure that our construction contracts are clear that blasting is not an option.

54. Would Reclamation guarantee that no blasting will be conducted at the Granite Bay/Mooney Ridge beach?

A: Reclamation will not conduct any blasting in conjunction with the specified in-reservoir borrow operation or any other aspect of the dam safety work at Dikes 4, 5, and 6.

55. Has Reclamation, or any other government entity, conducted any study concerning the impact to surrounding neighborhoods caused by potential disturbance of the granite rock core inside the Granite Bay/Mooney Ridge beach area?

A: No blasting will be conducted in conjunction with the dam safety work at Dikes 4, 5, and 6, and site disturbances will be limited to traditional excavation means and methods typically employed at construction sites throughout the region. Consequently, there will be no impacts to local geology.

**Haul Routes**

56. Why do you need a new paved haul route?

A: There is no new paved haul road required or planned for the dam safety work at Dikes 4, 5, or 6.

57. Where would the haul route(s) be located?

A: An in-reservoir haul road would be required to transport material from the borrow site near Dike 4 to the particular dike under construction. For planning purposes, the in-reservoir haul route has been assumed to be about 1 mile long. It would be located on the reservoir bottom and will be situated as close as possible to Dike 5 and as far away from the shoreline as possible based upon the lake level at the time of construction to minimize all impacts including proximity to recreating public and private property.

In order to complete dam safety improvements on the downstream face of each dike, Reclamation must modify the existing maintenance road at the tow of Dikes 4, 5, and 6. This maintenance road has been in continuous use since the dam was originally constructed. Modification will basically involve widening the maintenance road from approximately 15 feet to approximately 40 feet in width. There will be no paving. At the conclusion of construction, the maintenance road will be restored to approximately the original 15 foot width.

**Dust and noise**

58. The project will cause excessive dust and noise. What are you doing about that?

A: The EIS/R analysis concluded that the current project would not produce excessive dust or noise. Reclamation is required by law to meet set standards for that dust and noise that will occur. In response to community concerns, Reclamation will ensure additional measures beyond these standards are included in all plans, specifications, and contracts to reduce noise and dust to the maximum extent practicable.

59. What will be the hours of operation and the duration of the activity should the Granite Bay/Mooney Ridge beach borrow site project go forward?

A: Reclamation anticipates that the time required to actually excavate the material will be approximately 10 - 16 weeks for each of the two construction periods. This could be reduced through further optimization of the project. The expected hours of operation for borrow activities is from 7 a.m. to 7 p.m. The longer the workday, the shorter the overall construction period will be.

**Health and Safety**

60. Is there asbestos anywhere in the proposed work area?

A: Extensive geological work in the area has ruled out the possibility of finding asbestos within the project footprint in the Mooney Ridge area. Reclamation's report is posted at the following web address:
http://www.usbr.gov/mp/nepa/nepa_projdetails.cfm?Project_ID=1808

61. How can we be certain? What kind of testing did you do?

A: Reclamation used bulldozers, drill rigs, and back hoes to excavate large portions of the in-reservoir area below Mooney Ridge. That work showed no signs of the types of rock associated with asbestos. Reclamation geologists also evaluated the visible rock, and there was no association with asbestos.

62. What about other studies that document the presences of asbestos in that area?

A: Based upon substantial research, Reclamation is not aware of any studies in the literature that have indicated the presence of asbestos in the granitic material found in the Mooney Ridge area or any other granitic material at Folsom Reservoir. The following study in Placer County by the U. S. Geological Survey supports that conclusion: *Relative Likelihood for the Presence of Naturally Occurring Asbestos in Placer County, CA*. 2006.

63. Will blasting, excavation, and other construction activity raise the risk of exposure to asbestos?

A: Since there is no asbestos in the Mooney Ridge area, there will be no risk of exposure.

64. If there's no asbestos, then why does the EIS/R require mitigation measures to handle and process asbestos?

A: The literature and preliminary geological studies initially indicated the potential for asbestos to occur in the Sacramento County and El Dorado County areas of the project. Reclamation was therefore required to prepare a Geologic Site Characterization Report. That report will be available to the public by the end of August 2007. Subsequent geologic investigations have found no asbestos in the Placer County side of the reservoir. That geology of that particular area is predominately granite. As confirmed by our geologic investigations, asbestos does not occur in granitic formations underlying the Mooney Ridge area.

65. Is mercury present in the work area?

A: Mercury is present throughout the entire American River Watershed and by extension sedimentary layers in Folsom Reservoir.

66. Will Reclamation conduct testing to determine the level of mercury present in the area?

A: Yes. Reclamation tested the lake sediment in August 2006. The mean level of inert mercury in high sedimentation areas near the main concrete dam was .16 mg/kg, which is lower than the two parts per billion (.2 mg/kg) standard set by regulatory agencies for safe levels for women and children. Reclamation will continue testing the sand and sediments in all areas of the project footprint including all work associated with Dikes 4, 5, and 6. The decomposed granite under the sand at Mooney Ridge does not contain mercury.

67. Will excavation and other construction activity raise the risk of exposure to mercury?

A: No. Project construction will neither increase nor decrease the levels of mercury, if present, in the sand or soil associated with the dam safety improvements at Dikes 4, 5, and 6. A layer of sand and other sediment covering the 10-acre borrow site near Dike 4 will be removed from the area and stockpiled while the underlying decomposed granite is excavated. Stockpiling the sand before the decomposed granite is excavated, and replacing it afterwards as part of site restoration, will not release significant amounts of dust and particulates. However, in response to concerns from residents of the Mooney Ridge neighborhood, Reclamation will implement dust abatement measures, including extensive watering, throughout the construction period beyond that required by the air quality rules and regulations to ensure that a minimum of dust is generated.

68. What is the risk of material contamination in the [borrow] area and on the surrounding roads from traveling construction trucks?

A: Best management practices, including dust abatement measures, will significantly decrease the potential for construction activities or truck traffic to produce any elevated levels of dust. Contractors will be required to perform vehicle maintenance or refuel all vehicles in restricted areas. Hazardous materials are not required in the process for excavating the decomposed granite.

69. Did you consider that this would create an attractive nuisance at the [borrow] area?

A. Yes. Temporary fencing will be constructed around the borrow site and construction areas for public safety purposes. Borrow sites themselves will be appropriately sloped on all sides. Every effort will be made to inform and update the public of ongoing construction activities.

70. What is the proximity of the borrow operation to residential neighborhoods?

A. The site will be situated in some portion of a 20-acre area near Dike 4. This will eventually be reduced to a maximum 10-acre area in the same vicinity as the project is further optimized. The final borrow area will be located as close to the dikes and as far into the reservoir basin as possible based upon the lake level at the time of construction to reduce impacts including proximity to recreating public and private property. Depending upon the final designated 10-acre area, the borrow site would be from approximately 300 - 1000 feet to the nearest residence and approximately ¼ mile or more from most residences in the Mooney Ridge neighborhood.

71. Are the dikes in danger of failure?

A. There is no immediate risk of failure. The dikes were designed in the 1940s and construction completed in the 1950s based upon the science at the time. The dikes have been in service for more than 50 years. They do not have some of the safety features (filter and drain) that would be included if they were designed and constructed today. Given that the surrounding areas have become urbanized and the consequences of a failure could be catastrophic, Reclamation is doing everything possible to reduce the risk as much as possible. This requires modifying the dikes to bring them as close to current design standards as possible.

72. Would failure occur only during storms?

A. No. Dikes 4, 5, and 6 are at risk of failure from seepage through the dike. This is referred to as a static risk condition. Seepage per se is not unusual in earthen embankments. Under certain conditions, however, seepage could escalate to "piping," meaning materials movement. Failure due to seepage and piping could conceivably occur any time of the year and any time day or night.

73. If the dikes failed, what areas would be at risk?

A: The water would inundate much of Granite Bay, Roseville, Citrus Heights, and Rio Linda before flowing south through the Natomas area to Sacramento and then down to the Delta. The Mooney Ridge neighborhood is perched above the maximum reservoir pool and would therefore not be inundated in any potential dike failure. In those circumstances, however, the neighborhood could potentially be cut off from outside access, lose all utilities including drinkable water, and be exposed to the environmental and health issues that occur in a catastrophic event.

74. Cavitt Junior High School is located almost directly below Dike 4. Will the students be at risk when Reclamation begins construction work there? How can we be assured?

A: The students at Cavitt Junior High School will be safe during construction. Construction activity will be at least ¼ mile from the nearest school structure. Every effort will be made to separate the construction activities from the public. There is no risk of exposure to asbestos or mercury. As an additional measure, Reclamation will implement dust and noise abatement measures beyond prevailing standards. The ultimate goal is to expedite completion of the work and therefore reduce risk to the school of inundation due to failure of Dike 4.

**Recreation**

75. What about the impact on recreation?

A. Every effort will be taken to minimize impacts to recreation. Work will be completed during the period when there are fewer visitors. Detours will be provided for any impacted trails. Residents will have full access to the entire shoreline except for two interim periods of approximately 10 - 16 weeks each when up to 10 acres near Dike 4 will be in use for borrow purposes. Upon completion of borrow activities, the site will be restored to essentially its pre-construction condition. Overall, impacts to recreation will be incidental and temporary.

76. Will access to trails be disrupted?

A. If construction activities impact an existing trail, detours will be established during construction to keep the trail open while routing the users safely around the construction.

77. Will the beach area be ruined?

A. No. The "beach" is actually the reservoir floor exposed when the water levels drop. Prior to construction of Folsom Dam and Reservoir, that area was oak and grassland similar to the undeveloped shoreline around the lake. The reservoir floor, including the entire length below Mooney Ridge, was cleared and grubbed as part of the original construction. The area extending to Beal's Point was then used as the original borrow

area for constructing the dikes on the Placer County side of the reservoir. The borrow area was contoured upon completion of construction. The sand and silty material on top of that area has been deposited over time during the high water seasons. This topmost material will be removed from the designated borrow area and stockpiled. The decomposed granite material under the sand and silty material is the material needed for construction. Once the decomposed granite is removed, the terrain will be resloped to a natural configuration, and the sand and silty top material will be reapplied over the top of it.

78. What do you mean by "off-season"? There is no "off-season" at Folsom Lake.

A. Reclamation recognizes that the lake is used year-round for recreation. However, according to the California Department of Parks and Recreation (DPR) – which operates recreation facilities under a long term agreement with Reclamation – peak season is defined for all activities except camping as between the April 1 and September 30. According to DPR, approximately 75 percent of users visit the Folsom Lake State Recreation Area (FLSRA) during the warmer spring and summer months with water-based activities accounting for 85 percent of all visitors and 15 percent for picnicking, camping, and trail use. Fewer recreational users will be impacted if the majority of construction activity occurs during the "off-season" between October and May.

79. What is the impact on the Pioneer Express Trail (dedicated May 5, 1953)?

A. The current Pioneer Express Trail connects the cities of Auburn and Sacramento and passes through the FLSRA. This segment of the Pioneer Express Trail is also part of the American Discovery Trail, the nation's first coast-to-coast non-motorized recreation trail. The trail enters the northeastern corner of the FLSRA at Cardiac Hill and follows the western shoreline of the North Fork of the American River through Rattlesnake Bar and Granite Bay to Beal's Point. This 21-mile segment of dedicated unpaved trail is for equestrian and pedestrian users only. If construction activities impact this current trail, detours will be established during construction to keep the trail open while routing the users safely around the construction.

The current alignment of the Pioneer Express Trail is not the same as the alignment of the historic trail. The historic trail was down near the original bank of the American River which was inundated when Folsom Dam was constructed. No part of the inundated historic trail will be impacted.

**Economic Impacts**

80. Did you study the impact on property values? What was the outcome?

A: Neither CEQA nor NEPA requires an analysis of project impacts to property values. The EIS/R is an analysis of project impacts to the physical environment, not an economic analysis. Regardless, Reclamation and the Corps did respond to comments we received

on the Final EIS/R concerning potential impacts to residential property values. The Reclamation/Corps analysis determined that any potential project impacts – though not anticipated – would be temporary and would not result in lower property values. Please see Section 4.3.5 in Chapter 4 of the Final EIS/R for a more thorough explanation.

81. Did you study the impact on local businesses? If so, what was the conclusion?

A: The analysis in the EIS/R determined that there would not be significant impacts to local business. On the contrary, nearly $2 billion will be spent in the area to construct the full scope of Folsom dam safety and flood damage reduction projects.

**Wildlife Habitat**

82. Reclamation's plan has major impacts to local wildlife habitat. How do you explain that?

A: The construction work on the downstream side of Dikes 4, 5, and 6 will have unavoidable impacts to various types of habitat due to the proximity to the structures and the construction work. Examples include the loss of oak woodland and wetland habitats. Reclamation intends to avoid impacts to any habitat type when possible. Where habitat cannot be avoided, Reclamation will fully mitigate for those impacts per agreements with the U.S. Fish and Wildlife Service.

The EIS/R does not identify major impacts to wildlife habitat below Mooney Ridge itself. The area below Mooney Ridge is primarily in the reservoir basin and therefore subject to seasonal inundation. This fluctuation in reservoir levels makes it very difficult for wildlife and the necessary habitat to become established. Since the habitat quality is lower due to reservoir fluctuations, the impacts to wildlife will be minimal. The U.S. Fish and Wildlife Service has concurred with Reclamation's assessment of the impacts to wildlife habitat for the entire project.