

# Ala Wai Watershed Project

## Quarterly Stakeholder Meeting

DATE: August 5, 2010

ATTENDEES: See attached table

### 1. Introduction

Lisa Kettley started the meeting with a description of the meeting purpose, which was (1) to provide an update to the stakeholders on the status of the project, and (2) to discuss the initial outcomes of the draft Feasibility Scoping Meeting Report. Each of the meeting participants then introduced themselves.

### 2. Project Status

Lisa explained that the draft Feasibility Scoping Meeting (FSM) Report was completed in July and is currently in the District Quality Review (DQR) process. She explained that the DQR process is being conducted by USACE staff from Alaska to provide a degree of third-party objectivity, as nearly all of the USACE staff from Honolulu have been engaged in the project. She explained that the draft report is generally organized according to the USACE planning process, with the contents including (1) problems and opportunities, (2) objectives and constraints, (3) inventory and forecast of watershed conditions, and (4) preliminary alternatives formulation. She reminded the group that at this stage of project development, alternatives formulation efforts include identification of conceptual measures and a description of the methodology that will be used to formulate alternatives in the next phase. She explained that the comments received as part of the DQR process indicate the need for (1) the problems to be described on a stream reach-by-reach basis to provide the foundation for alternatives development, and (2) additional effort in describing the type and number of alternatives that will be formulated in the next phase. Lisa stated that the meeting would include an overview of the work being conducted in response to these comments, to solicit input and feedback from the stakeholders. She also stated that the USACE would provide an overview of the initial results of the economic modeling effort.

### 3. Initial Report Results

Lisa explained that the DQR team recommended rewording the project goal to emphasize the focus on addressing flood damage reduction and ecosystem restoration (the primary objectives of the project). Tom Heinrich asked why the goal specifically refers to aquatic ecosystem restoration, and Cindy Barger explained that the USACE's authority is generally limited to aquatic ecosystem restoration. She noted that terrestrial ecosystem restoration can be addressed as part of the "plan". Jimmy Lagunero and Karen Ah Mai suggested that the goal should include the concept of risk reduction (rather than "maximizing opportunities"). Tom suggested that the concept of maximizing cooperation/participation by partnering agencies and private entities should also be captured in the goal and/or objectives. Jimmy also noted that the goal statement should reference the Ala Wai watershed to provide clarity as to the location of the project. Lisa and Cindy stated that the project team would work to further revise the goal statement based on these comments.

*[Note: The goal statement was subsequently revised: "To improve the overall quality of the Ala Wai watershed, from the crest of the Ko'olau Mountains to the nearshore waters, with a focus on reducing flood hazards and restoring aquatic ecosystem functions."]*

Lisa then explained that the DQR comments indicated that the definitions for the terms "project", "plan" and "100-year flood" needed clarification, and that the project team wanted feedback from the stakeholders on the proposed revisions. Dudley suggested that the use of "anticipated outcome" in the definition for "project" be replaced with a more concrete term. Dudley also asked if the term "another entity" in the definition for "plan" referred to the local sponsor. Cindy explained that this role could be filled by the local sponsor or by any other group (e.g., a task force), emphasizing that the USACE can't fill this role (and can't task anyone else to do so). Karen expressed concern that this role is hard to fill, and suggested that the project team can't assume that it will happen. Cindy agreed, and explained that this need is highlighted in the report. Michael Cain asked how the role could get assigned; Cindy responded that it would likely need to occur at a legislative level. Tom suggested that the need for another entity be included as a recommendation of the report, but not be included in the definition. Karen noted that the leadership role of non-governmental organizations should be emphasized as part of any solution.

*[Note: The definition for "project" was subsequently revised: "The set of actions that will be described and analyzed in the Feasibility Study and Environmental Impact Statement (EIS) and, with authorization by Congress, will be implemented all or in part through USACE programs and funding."]*

*[Note: The definition for "plan" was subsequently revised: "A comprehensive strategy to promote long-term watershed stewardship within the Ala Wai watershed. The plan includes the project, as well as other actions that are complementary to the project; plan actions would require coordination by another entity (or entities) and could occur both during and beyond project implementation."]*

Lisa then explained that each of the various problems have been described for the whole watershed, with detailed information documented for each problem including causes, effects/implications, historical/future conditions and references. She explained that one of the main comments from the DQR team was that the problems should be described on a reach-by-reach basis, to lay the foundation for alternatives development. In addition, they indicated that the problems should also be graphically displayed on a map to provide a visual overview of the distribution of problems across the watershed. Lisa explained that the project team was working to describe the basic set of reaches, with the extent of each reach based on similar hydraulic and ecosystem characteristics. The list of problems will then be assessed for each reach, and a map will be generated using graduated symbols to indicate the degree of problems for each reach. She showed a basic example of the mapping technique; the group agreed with the approach. Cindy noted that the technical advisory teams (TATs) will likely be asked to review and provide input on the information via email.

Lisa then explained that the inventory and forecast of watershed conditions addressed historic, existing and future without-project conditions. She stated that the discussion of historic conditions includes a description of the channelization of the streams over time. She explained that the discussion of existing conditions includes the results of the various resource inventories (e.g., biological, cultural, hazardous waste, etc.), as well as those of the hydrologic/hydraulic and economic modeling efforts. Relative to the future without-project conditions, she explained that the report describes the forecasted future conditions, accounting for sea level rise/climate change (as discussed in the last stakeholder meeting). She then stated that the meeting discussion would be focused on the hydraulic and economic modeling results.

Lisa then showed the group a map displaying the modeling results for the 100-year floodplain (as discussed in the 12/4/09 stakeholder meeting). She explained that the DQR team commented that

additional information should be included to better communicate the modeling results. Lisa stated that the project team was working on adding depth contours to the 100-year floodplain map, as well as creating an additional map comparing the extent of the 25-year, 50-year and 100-year floodplains. She asked the group for input relative to other information or displays that might be of interest. Michael Cain asked if it would be possible to indicate those areas that are prone to flash flooding. Jerry Takayesu stated that this would be not prudent, as the source of flooding is not always the same.

Lance Shiroma then provided the group with an overview of the economic modeling methodology and results. Jimmy asked about the purpose of the economic modeling. Michael explained that the purpose of the economic modeling is to allow the USACE to complete a benefit cost analysis, which will provide the basis for selection of an alternative for implementation. Jerry stressed that the total economic damages need to be simply stated for the layperson, rather than trying to explain more technical results. Derek stated that there are two different purposes for describing the economic results: (1) to describe how the project is valued to allow comparison against other national projects as a means to get funding, (2) to describe the risk and potential impacts to the public. He stressed that these are two distinct purposes and both need to be addressed in the report. He also explained that the USACE is allowed to value specific items in the economic analysis (e.g., structures, automobiles, etc.). He explained that the analysis does not capture other impacts, such as business losses, environmental impacts and other social effects. These impacts can be captured as part of other analyses, which are much more subjective, but can help to demonstrate the unique aspects of the watershed (e.g., Waikiki as economic engine of the state). Cindy noted that these analyses will occur in the next phase of the project. Michael explained that a trade-off analysis would be used to capture and weigh the outputs from the various analyses. Bob Kinzie asked if there were data available that showed the long-term economic impact to the state following Hurricane Iniki. Cindy noted that the team would look into this. Jimmy stressed that the impact of a flood event is not just monetary, and that public safety is critical. Cindy agreed, and stated that the report would address this issue.

Lisa then provided the group with an overview of the alternatives formulation process. She explained to the group that, based on the problems, approximately 70 conceptual measures had been identified and organized into 19 measure categories. She explained that the information compiled for each measure includes site selection criteria and preliminary screening considerations. She stressed that the measures will not be sited until the next phase. Based on comments received from the DQR team, the measure categories will be assigned on a reach-by-reach basis and will be displayed on a map. She explained that the DQR team also suggested that additional detail be provided relative to the number and type of alternatives that will be formulated. In response, the project team is working on the alternatives development strategy, and anticipates that 8-10 types of alternatives will be described in the report, each based on a unique combination of measure categories. In the next phase, as measures are sited, a number of specific alternatives will be formulated for each type. She then provided a simple example to illustrate the concept. Dudley asked if the ecosystem restoration benefits have been captured as part of the economic modeling. Cindy explained that the ecosystem benefits will be quantified using an ecosystem model and accounted for as part of a separate account, referred to as the National Ecosystem Restoration (NER) account (to be completed in the next phase). For those measures that provide both flood damage reduction and ecosystem benefits, the benefits will be split between the NER account and the economic account (referred to as the National Economic Development (NED) account). She explained that, as Michael noted earlier, all of the various outputs will be weighed using a trade-off analysis.

#### 4. Update on Related Activities

Lisa then asked each of the meeting participants to provide an update on any activities or programs that they are involved in within the watershed. She noted that the project team will be trying to describe ongoing or future activities and programs as part of the report, so asked the group to highlight those activities that they would like to have listed in the report.

Jimmy stated that flood-proofing of Hamilton Library was nearly complete, and the public re-opening will be held in August. Lisa asked about the status of the UH Drainage Master Plan, and Jimmy stated that he was not sure of the status but would check with those involved.

Marshall Sakai explained that the construction contract for the Round Top Drive dispersion channel was recently awarded, and construction was expected to be completed by October 2010. He also stated that the 65% design documents were completed for the Woodlawn Bridge chute structure project; Dennis Imada noted that DLNR was still waiting for comments. However, Marshall explained that the project may no longer be funded by FEMA, as FEMA has expressed concerns over possible conflicts with the Ala Wai watershed project and has indicated their funds are expiring; he stated DLNR has filed an appeal with FEMA.

Tom notified the group that a combined Manoa and McCully/Mo'ili'ili neighborhood board meeting will be held on September 1 to discuss UH-related issues, and he anticipates that an update will be provided on the overall campus improvements, including the Drainage Master Plan. He also reminded the group that the McCully/Mo'ili'ili neighborhood board has been conducting neighborhood clean-ups to remove sediment/gravel along the roads/gutters; approximately 15 tons of material has been collected in the last 6 months. Gene Dashiell asked if any of the material had been tested for heavy metals; Jerry responded that no testing had been conducted, but City & County ENV had completed similar testing in Salt Lake, as part of an effort to justify street sweeping activities. Tom noted that the Pride in Mo'ili'ili cleanup event will be held in August, with support by City & County ENV. Tom also explained that the USDA facility at 2727 Woodlawn Drive was recently vacated, and UH is considering the long-term options for this facility. Finally, he noted that the steel framing for the new Manoa public library was recently erected, emphasizing that the library operations have all been sited on the second floor (limiting any potential flood damages on the first floor).

Tim Trang explained that City & County Department of Design and Construction (DDC) just completed the planning process to upgrade the existing drainage system near Mid-Pac Institute; they expect to initiate the design phase in the near future.

Jerry explained the City & County ENV is currently involved in a variety of activities and programs in the watershed including (1) education outreach efforts, including the Pride in Mo'ili'ili, Pride in Palolo and Mauka to Makai events, (2) water quality monitoring (both in-house and through funding to USGS), (3) installation of catch basin inserts (primarily in the Waikiki and Kapahulu areas), and (4) upcoming renewal of the NPDES permit for the MS4 system, which is expected to include requirements for low-impact development (LID) (e.g., use of bioswales). He noted that ENV is already implementing LID measures as part of City projects where possible, such as at the Honolulu Zoo, the Waikiki bandstand and golf course.

Tom stated that City & County DFM crews had recently conducted maintenance at Woodlawn Bridge, as well as along Makiki Stream near King Street. He noted that the project should include a measure that addresses adequate agency staffing and equipment, as the DFM crews are currently short-staffed and are using outdated equipment.

Karen reminded the group that the South Oahu Soil and Water Conservation District was recently resurrected, and that she is serving as the chair and Dudley Kubo is serving as a representative. She also stated that the Ala Wai Watershed Association (AWWA) conducted stream clean-up activities along an upper reach of Manoa Stream with staff from Kaiulani Hotel on Earth Day. She explained that AWWA was working to develop this reach of Manoa Stream as a living laboratory, where they could test restoration techniques for use elsewhere. She noted that there is an existing amphitheater adjacent to the site that could be used for training/education purposes. She also noted that AWWA was working with the USACE to try to plan a training workshop with USACE restoration experts.

Ron Rickman explained that USGS is currently involved with monitoring of several gages in the watershed; he provided an overview of the function and funding source of each of the gages, which include those at: (1) Makiki at Archie Baker Park, (2) Makiki at King Street, (3) Waiakeakua Stream, (4) Kanewai Field, (5) Manoa-Palolo Drainage Canal near Kaimuki High School, (6) H-1 Storm Drain, (7) Pukele Stream, and (8) Palolo Stream.

Chris Ball reminded the group that Mitsunaga and Associates is engaged in preliminary design work for the Ala Wai flushing project and golf course sediment detention basins for DLNR. He explained that they are currently working on the concept design report and are integrating the results into the USACE HEC-RAS hydraulic model.

Cindy noted that the USACE is upgrading their facilities at the Regional Visitor Center and is hoping to highlight watershed-related issues as part of the new displays.

## **5. Path Forward**

Lisa provided the group with an overview of the path forward, explaining that the near-term efforts will be focused on revising the draft document in response to comments received from the DQR team. She explained that the next step will be the Agency Technical Review (ATR), during which the document will be reviewed by staff from another USACE district; this review is expected to occur in the fall. Cindy then explained that the document can be distributed to the public following the ATR process, but sections of the report could possibly be released sooner, if needed to support any stakeholder activities. Tom asked when the next meeting would be held with the public. Cindy responded that the next public meeting would likely be held following submittal of the state Chapter 343 EIS preparation notice, likely in late-winter or early-spring.

**Ala Wai Watershed Project**  
**Stakeholder Meeting Attendance List**  
**August 5, 2010**

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