Flood Control District of Maricopa County

Flood Control Advisory Board

Meeting Minutes for December 3, 2014

Board Members Present: Chairman, DeWayne Justice; Hemant Patel, Secretary; Hasan Mushtaq for Ray Dovalina; Bob Larchick, Ex Officio

Board Members Absent: Ray Dovalina, Melvin Martin, Vice Chairman; Gregg Monger

Staff Members Present: William Wiley; Wayne Peck, General Counsel; Ken Proksa; Patrick Schafer; Michael Greenslade, Scott Vogel, Analia Summers, Anna Medina; and Ed Raleigh.

Guests Present: Hasan Mushtaq, City of Phoenix; Jock Moody, Slater Hanifan Group; Johnathon Chill, SHG; Jolene Maiden, JBH; Ted Lehman, JE Fuller; Pat Quinn, JE Fuller; Dave Jensen, Olsson Associates; Ricky Holston; Sunrise Engineering.

1) CALL TO ORDER

Chairman Justice called the meeting of the Flood Control Advisory Board (FCAB) to order at 2:04 p.m. on Wednesday, December 3, 2014.

2) PLEDGE OF ALLEGIANCE

The Pledge of Allegiance was recited.

3) APPROVE THE MINUTES OF OCTOBER 22, 2014

ACTION: It was moved by Mr. Patel and seconded by Larchick to approve the minutes as submitted. The motion carried unanimously.

4) MCMICKEN DAM REHABILITATION PROJECT

Presented by Michael Greenslade, Project Manager

PURPOSE: Information and discussion item only. No formal action is required.

Mr. Greenslade identified the project location between Grand Avenue and Olive Avenue, with the outlet channel and wash located east of Grand Avenue. The dam is approximately nine and a half miles long. The project provides 100 year flood protection in the channel and 500 year with the dam. Built in 1956, the dam was primarily designed to provide agricultural protection and protection for Luke Air Force Base. Mr. Greenslade displayed a 2009 aerial photograph of the area, stating that it provides significant flood protection for downstream properties. The dam was built in response to a significant flood in 1951, resulting from a 13.6 inch total storm.

In 1977, the Corps discovered significant cracking in the dam, which caused breaches in two locations. A year later, a major storm flooded the breaches. In 1985, a decision was made by the District to perform modifications. In 2003, earth fissures were identified at the south end of the

dam. In 2006, the District initiated a rehabilitation of the fissures. Alternatives were explored in 2007. In the interim, additional repairs have been made. In 2011, a final design level study was begun to identify areas along the dam at risk for earth fissures. The project is currently in design phase. He identified safety issues, including subsidence related concerns, earth fissure risks, embankment cracking, foundation and outlet pipes.

He provided an overview of historic survey data from 1991, 1998 and 2001. He identified the location of earth fissures across the dam at the south end of the dam, noting that the maps were provided by the Arizona Geological Survey.

Chairman Justice asked when the mapping was completed. Mr. Greenslade replied that it was completed in 2003.

Staff examined historic subsidence data to obtain the details of the bedrock profile and identified areas at risk for earth fissuring. These locations include Trilby Wash and along Grand Avenue. Mr. Greenslade discussed concerns about foundations and outlet pipes. When the dam was originally constructed, an existing dam along the Beardsley canal included a series of outlet pipes. The Corps constructed the dam on top of this area and extended two of the pipes. The District completed an investigation of two operational pipes and three abandoned pipes and identified a number of problems. Mr. Greenslade addressed spillway adequacy and staff's desire to increase the dam's capacity to contain the PMF. He then provided an inundation map contained in the emergency action plan.

Staff is taking a phased design and construction approach for the project. A 30 percent design has been completed for the full length of the structure. Final design is beginning on Phase I and II. The plan includes moving the spillway and flipping over the outlet channel. Phase I construction will include the concrete work. The existing dam will be used as a coffer dam to protect the construction. He then addressed the embankment. The existing poor foundation will be removed. A new dam segment will be constructed up front with a filter.

Mr. Greenslade reviewed the proposal for landscape and aesthetics. A proposed channel will run along Deer Valley Road, bringing flows into the dam. The concept for the entire length will include the drainage facilities, landscaping with rock mulch and vegetation, an existing regional trail and a wildlife corridor. One benefit to this approach is the generation of a significant amount of excess land. There have been two estimates of the excess land value. In 2008, the estimate was $12 million. Recently, the estimate totaled $8.5 million.

Next steps include completing Phase I and II design, which are reflected in the five year CIP. Construction will be based upon funding availability. The project can be built in phases. The total cost of the project, including design is estimated at $93 million.

Board Member Larchick asked about the dam's performance during the September storms. Mr. Greenslade replied that there was a spill-out at the outlet with approximately 1,000 CFS coming out of the outlet, or six feet of storage. There were no other significant issues identified. There is a total of 2,500 acre-feet storage for the structure.

Board Member Patel addressed the high risk area identified on the map and asked for the height of the dam at the location. Mr. Greenslade responded that it is approximately 14 to 15 feet high. As part of the emergency action plan, there is an inundation area to accommodate the flow.

5) COMMENTS FROM THE CHIEF ENGINEER AND GENERAL MANAGER

Presented by William Wiley, P.E., Chief Engineer and General Manager

PURPOSE: Information and discussion item only. No formal action is required.

Mr. Wiley reminded the Board that staff had sent out a letter to communities asking for them to identify needed projects in response to recent flooding. Fourteen letters were received in response, which identified 190 projects. Of these, 28 had been previously submitted. The remaining 168 new projects are estimated to cost $1.2 billion. The letters reiterated support for 28 existing projects, which would total $223 million for completion. In addition, staff put together its list of priorities for the unincorporated counties. These projects total approximately $132 million. The total submitted project cost is approximately $1.6 billion, of which $223 million were already submitted. Current Tier I and Tier II projects total $790 million existing projects. He noted that approximately $200 million in transportation related projects has been removed, as the District has historically not undertaken transportation projects.

The next step will be to send another letter out to communities acknowledging receipt of their requests and asking that they resubmit them as part of the CIP process.

Mr. Wiley said that the funding rate is 13 cents per $1,000 of assessed valuation. He noted that by 2017, the District will only have $1.7 million available for new projects.

He then addressed strategic planning, noting that a public meeting was held by the Board of Directors on November 17th. During that meeting the Board reviewed staff's prioritization scheme and suggested some changes. For example, the Board would like economic development to be included. The Board also asked for emphasis on a project partner match. The higher the match, the higher the priority should be given for the project. Staff will be providing a revised prioritization scheme to the Advisory Board for review.

The Board of Directors also asked staff to provide scenario details for increasing the rate. The Board of Directors also pointed out that the general public does not fully understand what the District does. As a result, a fact sheet was drafted. A copy was provided to Board members.

Board Member Patel asked whether the County is looking at changes to assessed valuations over the next five to ten years. Mr. Wiley replied that this is handled by the assessors; District staff cannot change the assessed valuation. In addition, they are limited by Proposition 117, which limits growth.

Mr. Wiley discussed the sand and gravel stakeholder group. An ad hoc task force process has been completed. District staff was tasked with reviewing how they permit sand and gravel operations. A sub-task force has convened to work on this issue. Some issues for review include the adverse impact from a floodplain use permit for a sand and gravel operation. One issue for clarification is the definition of adverse impact. Another topic addresses changes in the way permits are issued. Sand and gravel permits are currently issued for five years. The task force learned that it was difficult for entities to obtain funding, because the funding is short- term at

five years. Alternative models for sand and gravel permits are being reviewed. Fees are also under review, as currently renewal fees are often as expensive as the initial permit fee. A submittal check list is also being developed. Staff has been asked to review closure procedures for sand and gravel operations.

6) SUMMARY OF RECENT ACTIONS

Presented by William Wiley, P.E., Chief Engineer and General Manager

PURPOSE: Information and discussion item only. No formal action is required.

7) OTHER BUSINESS AND COMMENTS

Presented by: William Wiley, P.E., Chief Engineer and General Manager

PURPOSE: Information and discussion item only. No formal action is required.

The meeting adjourned at 2:42 p.m.