



Flood Control District of Maricopa County

Flood Control Advisory Board

Meeting Minutes September 25, 2019

Board Members Present: Ray Dovalina, Gregg Monger, Kyle Tilghman

Staff Members Present: Michael Fulton, Director; Jean Rice, General Counsel; Angie Flick, Chief Administrator; Kristine Rabe

1) CALL TO ORDER

Board Member Gregg Monger called the meeting of the Flood Control Advisory Board (FCAB) to order at 2:06 p.m. on Wednesday, September 25, 2019.

2) PLEDGE OF ALLEGIANCE

The Pledge of Allegiance was recited.

3) APPROVE THE MINUTES OF JUNE 26, 2019

This item was deferred until the next meeting due to the fact that there was not a quorum.

4) ACTION ITEM – REPAIRS AND IMPROVEMENTS TO THE CHANNELS OF SUN CITY AND SUN CITY WEST, RESOLUTION FCD 2019R005

Item was deferred until the next meeting due to the fact that there was not a quorum.

5) INFORMATION ITEM – FLOODPLAIN MANAGEMENT PLAN 2020 UPDATE – PROCESS AND PLANNING COMMITTEE MEMBERS

Presented by Kelli Sertich, Policy Planning and Coordination Branch Manager

This item was originally an action item but changed to information only since there was not a quorum.

Ms. Sertich stated that the District is getting ready to do an update to the Floodplain Management Plan and she would be walking us through some of those updates. Maricopa County participates in the National Flood Insurance Program and its Community Rating System Program. The Rating System rates a number of activities, such as our dam safety

program, ALERT system, our studies, our projects, the work we do, and allows us to score points.

We have to follow the FEMA guidance and the format they set up for how that gets audited and scored. There are many requirements in order to maintain this score and you can start out as a Class 10 and go up to a Class 1, which is the best. Currently, Maricopa County is at a Class 4 and that score results in a thirty percent discount to unincorporated County residents who purchase flood insurance which is certainly an encouragement to help them purchase flood insurance when they might not.

With that comes requirements, the Floodplain Management Plan (FMP) is one of those things that is required in order for us to keep our Class 4 rating. So, we need to have developed one which we did a number of years ago and then we update that every five years. The FMP communicates an overall strategy of programs, projects, and measures that when implemented should reduce the adverse impact of flooding in the community. The FMP also identifies flood hazards in the community and is used by the District to address flooding in unincorporated Maricopa County.

We are in the process of updating the Floodplain Management Plan 2020 and there is a specific process that has to be followed in order to get the required points. One of the major things is to establish a planning committee. That committee will then go through five workshops that take them through the steps of identifying the hazards, setting goals, and preparing an action plan. In addition to the committee's work we will also have three public meetings throughout the process. We also use social media to get the message out since the county is so large. Eventually, once the plan is developed, we will come back to the FCAB and ask for your endorsement in March or April of next year. Then, the final step will be for it to go to the Board of Supervisors for Adoption in June of 2020.

The District last updated the Plan in November of 2015. In order to receive CRS credit, the FMP must follow the standard ten step planning process, set by FEMA, described in the CRS User's Manual. Step one of the process requires that the planning process is conducted through a committee. The Committee will help identify and prioritize flood hazards and potential solutions.

For the 2020 update, a FMP Committee has been put together. We reached out earlier this year to all the cities and towns, unincorporated areas, the agencies and organizations, and the general public. The goal of that was to try and reach a broad spectrum of people to sit on the committee. The FMP Committee consists of: nine representatives from the twenty-five cities and towns in Maricopa County (at least one from every Supervisor District), five Maricopa County departments, one other county in Arizona, three state agencies, five associations/organizations such as the Farm Bureau and Central Arizona Project, and three private citizens.

Ms. Sertich stated that she would be back in October for the formal endorsement. Mr. Fulton stated that he just wanted the FCAB members to see what was coming up and what they were talking about so it wouldn't be in past tense. Just like with all of our outreach efforts, we are just trying to understand what the concerns are of the community.

Board Member Gregg Monger thanked Ms. Sertich for her presentation.

6) INFORMATION ITEM – PROJECT UPDATE: DESERT MOUNTAIN AREA DRAINAGE MASTER STUDY AND POWERLINE FRS, VINEYARD FRS, RITTENHOUSE FRS

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

Mr. Fulton stated that at every meeting the District is trying to give an update on some of the ongoing projects in addition to having time to interact with the Board. Theresa Pinto will be giving an update on where we are and what the next steps are on the Desert Mountain Drainage Master Study and Don Rerick will be giving an update on an NRCS project, Powerline, Vineyard, and Rittenhouse Flood Retarding Structures in Pinal County.

Presentation by Theresa Pinto, Project Manager

Ms. Pinto provided background information on the Desert Mountain Area Drainage study area. The study area is located in northern Maricopa County and is about 15 square miles. Most of the jurisdiction lies within the City of Scottsdale, with some in Tonto Hills area which is part of unincorporated Maricopa County, and a small portion of the study area lies in the Town of Carefree. It was noted that there are no delineated floodplains within the study area and it is mapped as a flood zone D which is known as an area of uncertainty.

The goal of the study is to help reduce flooding risks for residents by identifying flood hazards and risks which includes data collection and Hydrology and Hydraulic modeling. Then we recommend solutions to reduce flood risks and any costs associated with the flood risk. We also inform residents of what the flood hazards and risks are. This is a very important part of flood risk reduction, especially in this study area where we are not likely to implement any large regional structures.

With our modeling results we were able to identify the flood risks to houses and buildings. There are 200 homes and buildings that are at a higher potential flood risk. That means that our model results showed water depths that were 12 inches or greater next to a house. The District would then prepare maps, paper maps as well as online maps, to show the different depths of water. Ms. Pinto pointed out that high potential does not mean that a house will definitely flood due to some unknowns such as finished floor elevation, and what side of the house the water would be touching or flowing next to. This information would also need to be taken into account.

We also identified hazardous areas to avoid while driving as well as hiking or walking. This is based on flow depth and velocities. In this area there are a lot of residents from other parts of the country, as well as seasonal residents, and they may not be aware that walking in a wash during a storm can be dangerous.

The study also identifies erosion and sediment deposition hazards. The watershed is steep and relatively undeveloped so there is a large source of sediment. Erosion and sediment deposition are natural processes but may cause problems when it damages roads or infrastructure. By giving this information to the community as well as to the public, it helps them to protect their infrastructure, and know where they might need to put in extra erosion control for example. It also helps them plan landscaping or other property improvements.

There are several major washes in the study area that are mapped as Zone D. Based on an informal survey done at the two public meetings held in March 2019, only two of the sixty-five attendees opposed floodplain delineation. Most of the area will be mapped as Flood Zone X, the washes and major tributaries will be mapped as Flood Zone AE, and we estimated about 25 homes may be mapped in the floodplain.

The next steps for this project include current work on a floodplain delineation and we will develop recommendations for structural solutions. A lot of those solutions are going to be smaller structures that perhaps the community or the HOA can implement, or even the homeowners. We will conduct additional public outreach which include homeowner association meetings which we will be doing in the fall and winter and we will have a public meeting in 2020.

Board Member Gregg Monger asked how many Homeowner's Associations were in the study area. Ms. Pinto responded that Desert Mountain was the master HOA, which the study area is named after. There are about six other HOA's outside of Desert Mountain and about 15 to 17 villages. Ms. Pinto further stated that the District likely will not meet with all of them because some of them don't have too many issues. We will make attempts to meet with the villages where flood hazards were identified unless they do not want to meet.

Board Member Gregg Monger asked what involvement the golf courses had in this process. Ms. Pinto responded that there are major erosion issues and she thinks that they will take the results of the study into consideration when they make golf course improvements.

Mr. Fulton asked about the two individuals who opposed the floodplain delineation in regards to what reason they may have had. Ms. Pinto responded that one person said that she thought it was a waste of taxpayer dollars to delineate floodplains and the other persons answer was interesting. Mr. Fulton responded that this is a challenge we have when we are trying to accurately define risk in a community so that it can avoid risk. Mr. Fulton further stated that we need to be sensitive to the other impacts that can come when we redelineate. It is very important for the public to understand what we are trying to do.

No further questions were asked and Board Member Gregg Monger thanked Ms. Pinto for her presentation.

Presentation by Don Rerick, Planning and Project Management Division Manager

Mr. Rerick stated that he would be giving an update on the Powerline, Vineyard and Rittenhouse FRS structures. The structures were built in the late 1960's by the Soil Conservation Service which is now the Natural Resources Conservation Service (NRCS). The reason we are doing rehabilitation on these structures, focusing first on Powerline and Vineyard, is due to cracking issues because they are earthen structures that are over 50 years old, the foundations are not up to present standards would expect for filters, there are capacity issues on the spillways and most importantly, there are earth fissure issues. When a fissure was discovered downstream of the dam that could approach the dam, we installed an interim dam safety measure dam construction.

Mr. Rerick stated that as he mentioned before, the FCD will be focusing on the Powerline and Vineyard structures and we are approaching the 100 percent design for both structures. Plans and specs are being prepared. The Arizona Department of Water Resources (ADWR) is heavily involved in this project as is NRCS. We are making good progress in getting their approvals so we can proceed with construction. Once we receive the NRCS approvals on the Vineyard project, we will then restart our discussions with them on the funding for the Vineyard project. Because of the requirements of NRCS and ADWR that the Vineyard raise must be completed before we do the Powerline channel, which is going to replace the FRS structure. The FRS will be decommissioned.

Mr. Fulton asked Mr. Rerick to point out the state land holdings which Mr. Rerick did on the map in his presentation. Mr. Rerick further stated that after the projects are completed, FCD and the state land folks will sit down and look at what acreage may be released so that they are able to maximize developable land. Mr. Fulton pointed out that many of the structures were built in the middle of nowhere and that is no longer the case now.

Mr. Fulton brought up the funding situation with NRCS, in which the funding for the PVR projects had been de-obligated by NRCS and part of it is being redirected to the Buckeye #1 structure. Mr. Fulton further stated that we will be looking for federal partnership money to fund these projects which is no small amount, with the total rehabilitation project for Powerline and Vineyard at almost \$100 million. Even without the funding we are going to move ahead to 100 percent design so that when funding is available, the projects are as shovel ready as possible.

Board Member Gregg Monger asked Mr. Fulton if there was a vehicle that could be put in place with the large developers of state trust land to help fund the projects if funds from NRCS do not come through. Are there discussions with state land to better prepare for future growth out there to the would-be buyers? Mr. Fulton stated that as far as he knew we have not talked with State Land about participating as a funding partner.

Mr. Fulton asked Board Member Ray Dovalina if he had any ideas. Mr. Dovalina commented that there are opportunities where you could look at an impact fee program and that is what the City of Phoenix is looking into for certain areas. Mr. Dovalina stated that the limiting factor here could be other public infrastructure needed like water, sewer and roads. Mr. Dovalina further stated that it depends on how you can bring all the other types of systems together, in addition to the building of the infrastructure for the flooding aspect. There are mechanism for that, like a long term agreement for a water or sewer line like an improvement district, you could do a CFD, a communities facility district, and impose an assessment across all of the land. However, there are some challenges with that like who pays for the financing, who's fronting the money.

Board Member Gregg Monger thanked Mr. Rerick for his presentation.

7) **COMMENTS FROM THE DIRECTOR**

Presented by Michael Fulton, Director

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

Mr. Fulton commented on the weather that we experienced during the week around the Northern and Eastern parts of the County which experienced pretty intense rainfall. Mr. Fulton also mentioned that he had spoken with Board Member Kyle Tilghman prior to the meeting and it was mentioned that there was a lot of rain in the Woodbury fire scare area where the FCD had been asked by the forest service to install two rain gages. We were able to provide them with the data that just over four inches of rain fell at one of the gages in just under 12 hours.

Mr. Fulton stated that our network all around the county worked as designed during and after the storm. We had our usual maintenance issues that pop up after a storm with sediment removal and making sure all the gates are functioning. There was no damage according to initial assessments but some water still hasn't receded from some of the structures; however, everything worked according to plan. This is what the District prepares for and the ALERT system helps people see what's coming. We had some probably 100 year events in the East Valley that caused some structure flooding in Mesa and Apache Junction that was not in the floodplain but Unincorporated area drainage challenges that two and a half inch rain storms will cause. We are trying to get the message out about flood insurance and flood proofing and all those things that people can do to try reduce their risk and limit their exposure when these events occur.

Mr. Fulton asked if Board Member Kyle Tilghman would like to speak regarding his storm experience this week at SRP. Mr. Tilghman stated that SRP does prepare for storm events as best as they can but Mother Nature tends to not always follow the plan. They realized the storm was coming in but the magnitude that fell in the Canyon Lake and Apache Lake

areas was more than they anticipated early Monday morning. At about 9 am, they released 20,000 cfs out of Stewart Mountain Dam to accommodate the inflows coming in at Apache and Canyon and that still was not enough so they increased it to 48,000 cfs around 10 am Monday morning which then ultimately spilled over Granite Reef Diversion Dam into the Salt River. Mr. Tilghman stated that SRP just recently stopped flows over the Granite Reef Diversion Dam at about midnight the night before. This tells you that there was a significant impact that fell in that area of town and fortunately the SRP system was designed well enough that there were minimal, if not any, damages to the canal system.

Utilizing the canal rain gates on the Arizona and Grand Canal through the Central and West Valley helped prepare for water coming in off the watershed to accommodate those flows as best as possible. Unfortunately, they did not have too much time to notify everybody but they did get the notification out and everyone that was living and working in Salt River was able to get out. They did open up the emergency operations center to anticipate additional storms coming in Monday night but those hit the far West Valley so they kept an eye on that and closed the emergency operations center Tuesday afternoon. Mr. Tilghman further stated that they would see what happens, where the next round of storms fall and the severity.

Board Member Gregg Monger thank Board Member Kyle Tilghman for speaking.

8) SUMMARY OF RECENT ACTIONS BY THE BOARD OF DIRECTORS

Presented by Michael Fulton, Director

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

Mr. Fulton reviewed some of the recent actions by the Board of Directors.

On July 31, 2019, the Small Project Assistance Program (SPAP) Resolution Amendment FCD 2009R003C was adopted. These changes included an amendment to change title of Program Authority, increase cost sharing amount of District's contributions, include cost share of design costs, and increase the allowable time for project completion.

Mr. Fulton stated that this was something that we worked on with various cities and others, where we evaluated the SPAP, its 10 year history and asked question on how we could improve the program and make it more useful for the city customers of the District. We made some improvements to the program that will now be effective in advance of our soliciting new projects. Mr. Fulton pointed out some of the changes which include an increase in project size from \$250,000 to \$500,000, allowing under certain circumstances for design cost to be included, and increased the completion time for a project from one to two fiscal years. Mr. Fulton also stated that the District would be looking at the 2020 budget which would lead to some discussion on our CIP Program which we will be reviewing like we did the SPAP program.

On August 21, 2019, the Amendment to contract for Cave Buttes Dam modification project auxiliary outlet tunnel pre-construction was approved. The amendment will increase the Guaranteed Maximum price (GMP) to \$15,300,000. The previous authorized amount was \$8,000,000. Mr. Fulton stated that the Cave Buttes Dam was built by the Army Corp in the 1980's. One of the improvements that is being proposed is to install an additional outlet to reduce the retention time for the dams fill capacity. Right now the drain time is somewhere around 55 days and we are trying to drive it down to 30 days. We can do that by installing an outlet that will be a tunnel. This is a different construction technique, one that the District has not used before.

On September 4, 2019, the contract with Gavan & Barker, Inc. for Oak Street detention basin and storm drain project was approved. Gavan & Barker will perform engineering services related review and update the construction plans and specification for the Oak Street Detention and Storm Drain project. Contract is effective for 730 calendar days from the date of execution or the expenditure of \$150,000, whichever comes first. Mr. Fulton stated that this project is out in Mesa and will benefit a great deal of unincorporated Maricopa County and some parts of the City of Mesa. This project was on the CIP recommended list for a while and we have resolved to move ahead as a county only project on this. We are still working with the City of Mesa but moving ahead as a District. The project is being updated and we will see what it eventually costs out at.

Board Member Ray Dovalina pointed out the Metro Area Drainage Master Study/Plan Update that Board of Supervisors approved on July 31, 2019. Mr. Dovalina stated that the City of Phoenix appreciates this. This study will help most of Central Phoenix.

Board Member Gregg Monger asked Mr. Fulton if there was anything else and Mr. Fulton stated that there are several items that will have to wait until next month to take action on from today's meeting. One is a resolution to proceed with repairs on the Sun City and Sun City West drains. The second is the Floodplain Management Plan Exercise that Kelli Sertich will be speaking on. We will be proceeding this month with meeting with the committee to update our Floodplain Management Plan. Because of the timing Mr. Fulton asked that the Board give Kelli a few minutes to just talk about what the Floodplain Management Plan is and what we use it for and describe a little bit about our public input.

9) OTHER BUSINESS AND COMMENTS FROM THE PUBLIC

Board Member Gregg Monger asked if there was any other business and there was none. He then asked if there were any comments from the public. Ashley Couch, City of Scottsdale, did have several comments. One comment was regarding the Desert Mountain discussion. He stated that they want to delineate the floodplains in the Desert Mountain Area Drainage Master Study area as it is in a Flood Zone D and the flood insurance is in the most expensive category. They have had flooding in this area; however, when the area is delineated the insurance premiums are likely to go down. Mr. Couch also brought up the

PVR FRS structures and mentioned that the City of Scottsdale worked with the State Land Department and came to an agreement where the State Land Department will stipulate on specified parcels at auction that the successful bidder pay a drainage development fee that would benefit the undeveloped land.

Board Member Gregg Monger stated that the meeting was adjourned. The meeting adjourned at 2:59 p.m.