



**Albuquerque Metropolitan
Arroyo Flood Control Authority
Regular Meeting Minutes
June 23, 2016**

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1. Call to Order and Roll Call

Chair Thomson called the Regular Board Meeting to order at 10:01 a.m. Thursday, June 23, 2016. Roll was noted as follows:

Directors present:	Chair Bruce M. Thomson Director Cynthia D. Borrego Director Ronald D. Brown Director Tim Eichenberg Director Deborah L. Stover
Directors excused:	None
Attorney present:	Attorney Randy Autio, Robles, Rael & Anaya
Others present:	Jerry M. Lovato, P.E., Executive Engineer Staff Other attendees on file at AMAFCA

A quorum was present.

2. Approval of Agenda

Director Eichenberg made a motion to approve the agenda. Director Borrego seconded the motion, which passed unanimously (5-0).

3. Meetings Scheduled

- a. July 28, 2016, 10:00 a.m. – Regular Meeting**
- b. August 25, 2016, 10:00 a.m. – Regular Meeting**
- c. September 22, 2016, 10:00 a.m. – Regular Meeting**

Director Brown may have a conflict due to a conference he is attending. Director Eichenberg will be attending a Public Employees Retirement Association (PERA) retreat in Las Cruces, but will drive down from Las Cruces to attend the July 28, 2016 meeting. There were no changes to the meeting dates listed.

4. Items from the Floor/Public Comments

No one signed up for Public Comment.



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5. Approval of Minutes

a. May 26, 2016

Director Borrego stated there were a couple minor changes as follows: page 11, under Item 12. Calabacillas Arroyo Facility Plan – Swinburne Dam to the Rio Grande – Consideration for Approval of Selection Advisory Committee Recommendation, closer to the bottom, the sentence should read that there is a question on the right Hydrology. Page 19, under Item 20, Real Estate, Director Borrego had inquired about AMAFCA receiving revenues from the Balloon Fiesta; Mr. Willis stated that AMAFCA does not receive any revenues from Balloon Fiesta. Chair Thomson stated that on page 13, under Item 15, Office of the State Engineer Dam Safety Bureau – Update on Development of a PMP Tool; add the word “shed” in the name for the New Mexico Watershed and Dam Owners Conference.

Director Borrego made a motion to approve the minutes of May 26, 2016, as amended. Director Brown seconded the motion, which passed (5-0).

6. Financial Matters

a. FY 16 Budget to Actual

Mr. Herman Chavez, AMAFCA Finance and Administration Manager, stated that AMAFCA continues to work on transparency in reporting. He referred the Board to the graph reflecting the projected budget; last five-year average of collection revenues compared to the FY-2016 Budget. He noted that the graph reflects a straight line with a second half separation showing the first half of the year is nearly identical on both graphs. The actual revenues is exceeding the five-year average and budget. What is not reflected on the chart is the recent \$933K received from the final tax payment for the fiscal year. AMAFCA will finish the year with higher income than the projected budget and five-year average. Mr. Chavez referred the Board to his memo comparing FY-2017 budget at \$3.5M and the actual budget for FY-2016 at \$3.66M. Responding to a question from Director Eichenberg, Mr. Chavez stated he is not sure what the outstanding percentage for tax collections is for 2015; however, current tax year was around 98.1%. Responding to a question from Director Brown, Mr. Chavez stated the five-year average is on actual collections. Mr. Jerry Lovato, AMAFCA Executive Engineer, stated that staff went back in time to identify trends. There was a brief discussion regarding delinquent collections, how to budget for them, and other trends. Responding to a question from Director Eichenberg, Mr. Chavez stated that looking back to FY-2014 there were two months that showed abnormal collection revenues. Responding to a question from Director Brown, Mr. Chavez stated that actual receipts from the last 3 years had been around 97%. He further stated that he noticed a 2.6 average increase in residential and a 1.6 decrease in non-residential collections. He stated that



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those averages were used for the FY-2017 budget. Actuals are coming in very close to the projection(s). Mr. Chavez referred the Board to the graphs on page two of the mailout. Capital Outlay, including the wash bay and retaining wall installed at AMAFCA are now included in totals and reflected on the graph. There was approximately \$170K of work done in May that will be paid in June. Responding to a request from Director Eichenberg, Mr. Chavez stated he would watch the tax sales from the Bernalillo County Treasury office. They were doing two to three times a year and will be moving to every other month. Responding to questions from Director Borrego, Mr. Kevin Troutman, AMAFCA GIS Manager, stated that the server had been shipped and would be arriving in the next week. The web mapping update is in progress and should be completed in the next couple of weeks. The website requires AMAFCA to alter the current plan so that server side access will be allowed. An interim website update will be viewable on mobile devices. Mr. Chavez stated that his memo should have stated that the server and web mapping line items would be incurring costs in June, not that there will be additional costs. Mr. Chavez referred the Board to page 4, Budget to Actual, and noted that at this time last year CoA had not been billing payroll (\$617K in payroll) and other invoices in a timely manner; however all bills are coming in and are very comparable with last year. Responding to a question from Director Thomson, Mr. Chavez stated that the year-to-date through the end of May has a deficit in the amount of \$934K. This will be reduced because \$933K of collections were recently received. This amount was not included in May's report due to receiving in June. Responding to a question from Director Borrego, Mr. Lovato stated that AMAFCA's employee count is 21 (a maintenance employee resigned); however, the actual count is 22 and has been so for a while. 26 years ago the employee count was 19. Mr. Chavez stated that AMAFCA was currently advertising for two positions, Field Engineer and Maintenance Worker, which will close on Friday, June 24, 2016.

b. AMAFCA Cash & Investments

Mr. Herman Chavez, AMAFCA Finance and Administration Manager, stated the report was changed last month in order to build better transparency. He further stated that the report reflects the Series 16 Bond Sale that was received on May 5, 2016. There were no questions.

c. Approval of May 2016 Expenditures

Mr. Herman Chavez, AMAFCA Finance and Administration Manager, presented the May 2016 Expenditure report. There were no questions.

Director Brown made a motion to approve the May 2016 Expenditure Report. Director Stover seconded the motion, which passed (5-0).



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**d. Financial Position Recap May 16, 2016 through June 15, 2016 & Forecast
June 16, 2016 through July 15, 2016**

Mr. Herman Chavez, AMAFCA Finance and Administration Manager, presented the Financial Position Recap and Forecast. There were no questions.

Director Stover made a motion that the Board approve the Financial Forecast. Director Brown seconded the motion, which passed (5-0).

e. Fiscal Agent Funds – Proof of Cash and Savings

Mr. Herman Chavez, AMAFCA Finance and Administration Manager, presented the Fiscal Agent Funds. There were no questions.

f. Acceptance of Inventories

Mr. Herman Chavez, AMAFCA Finance and Administration Manager, stated that a physical inventory of items was done and recorded on the applicable inventory lists. Mr. Herman Gabaldon, Maintenance Superintendent, Mr. Kevin Troutman, GIS Manager, Mr. Patrick Chavez, Storm Water Quality Engineer, and Mr. Herman Chavez conducted a physical inventory of items recorded on the inventory lists. During the inventory process, it was noted the Storm Water Quality items were listed in office inventory. Staff concurred that these items should be accounted for on a separate list.

Director Borrego made a motion that the Board accept the Inventories as presented. Director Stover seconded the motion, which passed (5-0).

g. Certification of FY-2017 Interim Budget

Mr. Chavez stated that AMAFCA had received a letter from the State Department of Finance and Administration (DFA) certifying AMAFCA's FY-2017 Interim Budget, with the condition that the fourth quarter reports are to be received in a timely manner. Mr. Chavez further stated the reports would be sent in as anticipated. There were no questions.

**h. Approval of “Exhibit A,” Resolution 2006-08, Reimbursement for AMAFCA
Goods and Services**

Mr. Herman Chavez, AMAFCA Finance and Administration Manager, referred the Board to the schedule with rates. He stated the schedule removed the sale of the West I-40 Drainage Management Plan and added the cost to sell the Interim Soil Cement Guide. Responding to



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questions from Director Eichenberg, Mr. Lovato stated that when a film license is received and the film crew has left the applicable facility, AMAFCA staff goes back to the site and verifies the facility has been cleaned up. The amount recouped is the hourly cost for the employee's time on site to verify the area had been put back to the proper standards, plus 40% for benefits. Employees do not stay on site all day while filming is taking place.

Director Brown made a motion that the Board approve "Exhibit A" of Resolution 2006-8, Reimbursement for AMAFCA Goods and Services. Director Stover seconded the motion, which passed (5-0).

7. Legal

a. Status Report

Attorney Randy Autio stated the Tract 2B litigation is processing as expected. A scheduling order had been done and will be reviewed by the court, and then it will move to discovery. The property owners in the case will have to provide documentation on their plat(s) in order to support their claim(s). Given the timing of District Court, it is anticipated there will be a settlement conference in the early fall. The Board will be kept updated. Attorney Autio further stated that both he and Attorney Bob White would be conducting training on the Government Conduct Act for AMAFCA employees. He is working with Mr. Lovato to try to speed up the US Army Corp of Engineers (USACE) 408 permit approval process with the hope of going back to the former process to get approval, but does not expect a landslide of support from USACE. Responding to a question from Chair Thomson, Mr. Lovato stated that USACE is not a local sponsor and the local sponsors have USACE projects. He further stated that Bernalillo County (BernCo) could have a few water projects that include vacuum sewers, which might not be covered in the 408 process. He further stated he had not asked other agencies to assist AMAFCA, but he had spoken with other flood control agencies in other states. During discussions with USACE staff, while it was not encouraged, it was mentioned that one option to pursue would be going to the Congressional Delegation for their assistance. Responding to a question from Chair Thomson, Attorney Autio stated that the 408 permit order would expire this summer; however, the process calls for local sponsors to work through the local USACE office. It does place burden(s) on AMAFCA and other local sponsors. Normally, the Federal Regulation allows for a comment process; however, the current 408 process does not allow it. Responding to a question from Chair Thomson, Mr. John Kelly with the Middle Rio Grande Conservancy District (MRGCD) stated that MRGCD is a local sponsor for USACE projects, and based on the presentation(s) made to the Board, he would be discussing this issue with Mr. Mike Hamman, MRGCD CEO/Chief Engineer. He further stated that it might be beneficial to have Mr. Lovato



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and both AMAFCA and MRGCD attorneys involved as well. Chair Thomson stated that what was once a simple activity that took two weeks, now takes two years or more with the current 408 permit process.

8. Executive Engineer's Report

Mr. Jerry Lovato, AMAFCA Executive Engineer, stated the Board had a handout in their folders. He stated that the last month was extremely busy and thanked staff for their assistance. He highlighted significant activities from the past month:

- **Legislative Liaison - Summary of Contested Races:** At the last AMAFCA Board meeting, there was a request for a summary of the contested State House and State Senate Races for the General Election. Two spreadsheets outlining the contested General Election races were reviewed. Responding to a question from Director Eichenberg, Mr. Lovato stated he was not aware of the reasoning for the +29 and +32 numbers listed on the report from the Legislative Liaisons, however, Mr. Fleisher who would be representing Alarid Consulting, would be present later in the meeting to answer any questions.
- Balloon Fiesta is investigating the installation of a new bridge over the North Diversion Channel (NDC) to connect Edith with Balloon Fiesta. This will be used for emergency access. They have been notified that it will be a two to three-year wait due to the 408 permit process.
- CoA is looking at doing a bridge over the NDC, north of Osuna. It would be better to raise the bridge over the channel so that it would not impinge on the channel at all with freeboard or the concrete lining. To save money, CoA would like to put the bridge beams down into freeboard area, which would be a 408 process. They understand it will be a three-year process due to the 408 permit process.
- **Catastrophic Earthquake Exercise - Albuquerque Resilience Assessment:** The Federal Emergency Management Agency (FEMA) is funding the project. Staff had been working with CoA to prepare for a large field exercise sponsored by FEMA, to be held next year. The field exercise will simulate the response to a catastrophic earthquake centered north of the Albuquerque. The University of New Mexico's (UNM) Resilience Institute had provided local government agencies a proposal to conduct a resilience assessment of existing infrastructure. He further stated it is a little expensive; however, if the Albuquerque Bernalillo County Water Authority, CoA, MRGCD, and others come together, it would provide some very good tools. Responding to a question from Chair Thomson, Mr. Lovato stated the UNM Resilience group was created approximately four months ago, as part of Resilience Solutions 21, a national private public partnership. UNM Civil Engineering, which is involving the entire university, is the principle investigator for this proposal.



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b. Notification of On-Call Services Task Orders

Mr. Lovato referred to his memo for the task orders that had been issued the prior month. He pointed out that the month was extremely busy. A couple of the items recapped for the Board are as follows:

- The Hamilton Dam Traffic Analysis will be done to see what will be required by BernCo and the Neighborhood Association (NA) to look at the possibility to close Eubank. After the Traffic Analysis is completed, a NA meeting and public meeting(s) will be held. Depending on the results of the public meetings, staff will move forward with a Request for Proposal for dam design of the Hamilton Dam.
- The South Broadway Drainage Management Plan (DMP) Investigation will address flooding, south of Gibson Boulevard, identified by Director Stover and Counselor Benton. This investigation will help to verify that the CoA DMP is being followed for infrastructure that is being built.

It was suggested to look at the feasibility of closing Eubank; however, do not proceed with design and construction of the dam. Sandia Pueblo is capturing a lot of water in recently constructed detention basins. AMAFCA has identified two plans to protect existing infrastructure downstream of Ventura in the La Cueva Basin, build avulsion one or build a detention basin (Hamilton Dam.)

Mr. Kurt Wagener, AMAFCA Field Engineer, stated that Item 5 on the memo had a typo; it should read \$1,000.00 not \$10,000.00.

Consent Agenda:

Chair Thomson stated that agenda Items 9 and 10 were on the Consent Agenda. Director Brown made a motion that the Board:

- Approve the Agreement and authorize the Chair to execute the Agreement with Tetra Tech, Inc. in the amount of \$81,800.00, excluding New Mexico Gross Receipts Tax; and
- Authorize out of state travel and expenses for the AMAFCA Storm Water Quality Engineer to present to the Urban Waters National Training Workshop, in Arlington Virginia, not to exceed \$1,445.00.

Director Borrego seconded the motion, which passed (5-0).



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11. EPAT PMP Program – Draft Funding Agreement with the New Mexico Office of the State Engineer

Mr. Jerry Lovato, AMAFCA Executive Engineer, stated the he was hoping to have a funding agreement; however, the Office of the State Engineer Dam Safety Bureau (DSB) would rather have AMAFCA grant funding directly to the DSB. This grant would follow the same format that was used by the New Mexico Watershed and Dam Owners Coalition (NMWDOC) to fund \$50K. Mr. Lovato referred the Board to his mailout with the draft letter to the DSB outlining the stipulations, as well as a listing of the other agencies that are participating and have paid dues to the NMWDOC. Mr. Lovato stated he has contacted other flood control authorities and will try to obtain more funding. Responding to questions from Director Eichenberg, Mr. Lovato stated that all entities on the list had contributed to the NMWDOC and they had voted to send \$50K to the DSB. AMAFCA would like to have a seat at the table to make sure AMAFCA's interested were taken care of. Responding to a question from Chair Thomson, Mr. Lovato stated that the DSB would rather have the grant so they can move forward, as opposed to the bureaucracy that they would have to go through with a funding agreement. Responding to a question from Director Eichenberg, Mr. Lovato stated he would see if a memorandum of understanding or another agreement could be obtained, as opposed to a grant. There was a brief discussion regarding the difference between an agency insisting that AMAFCA design a dam over two to three times the size required and designing a facility for the size needed. Mr. Lovato stated that the NMWDOC was created for that very reason. He further stated that the DSB is moving in the right direction since they understand that HMR55A is obsolete. One of the requirements the Board made two years ago was AMAFCA would participate if the DSB managed it as opposed to AMAFCA managing development of a new HMR. There was a discussion on how there should be a covenant acknowledged by the DSB that building dams for any contribution should be an acknowledgment by the DSB that building facilities are very expensive and it should be their mission to establish reasonable balance between costs versus protection. Chair Thomson suggested that since the DSB has no in-house expertise, if AMAFCA decides to do the grant, one requirement would be a project advisory committee be formed consisting of five to seven individuals. These individuals would be required to have recognized expertise and would provide input and oversight. Another stipulation would be that AMAFCA and the NMWDOC should choose some of the members that would sit on the project advisory committee. Mr. Lovato stated that the Federal Regulatory Commission (FRC) process is being used by the State of Colorado, to conduct peer reviews. Chair Thomson stated that prior to authorizing a grant; he would like to know more about the FRC and their peer review process. Responding to a question from Director Eichenberg, Mr. Lovato stated that AMAFCA is a member of the NMWDOC and the DSB asked AMAFCA for the funding in order to cover their FY-2017 budget. The Board asked that this be deferred for the time being. The Board would like to have AMAFCA do what it can, but does not want AMAFCA stepping outside the Coalition for a seat at the table. Director Brown suggested that an independent climatology study be done to be the base data for the



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NMWDOC to present to the DSB. Mr. Lovato stated that would cost in excess of \$1M to create an independent climatology study. The states of Colorado, Arizona, and Texas have done their EPAT PMP Program. Colorado has spent between \$500K and \$800K for their program. The State of New Mexico has committed approximately \$900K for the Colorado collaboration. He further stated it would be a huge benefit to work with Colorado. Responding to a question from Director Borrego, Mr. Lovato stated that only the groups listed on his memo have joined the NMWDOC. He further stated that the Pueblos, various cities and counties, are able to join, if they choose to do so. Chair Thomson stated that the Pueblos have very limited interaction with the DSB.

12. Storm Water Quality Monitoring Cooperative – Consideration for Approval of Agreement with MS4 Permittees

Mr. Patrick Chavez, AMAFCA Storm Water Quality Engineer, stated the monitoring cooperative was formed because of the new watershed based permit. The Middle Rio Grande Stormwater MS4 Technical Advisory Group (TAG) was formed. A sub-group within the TAG worked together to establish a Compliance Monitoring Cooperative (CMC) for the wet weather monitoring. Mr. Chavez covered the difference between populations in the city and various jurisdictional populations for facility uses and area of service.

Mr. Chavez referred the Board to the attachment in his mailout listing the respective dollar amounts for each agency in the CMC. The total cost of the CMC is \$132K for the sampling plan. AMAFCA's contribution to the CMC is \$14,400. This would be a substantial cost savings versus the \$200K spent last year. Some monitoring costs are not included in the \$14,400, which will be the responsibility of AMAFCA only. AMAFCA will be monitoring in the NDC at the various inlets. A \$1K credit is given to AMAFCA to serve as the fiscal agent for the CMC. CoA has the biggest funding portion. The cost to each participant is dependent on the total number of participants; therefore, the more participants would result in less paid by each. Responding to a question from Director Brown, Mr. Chavez stated that the City of Rio Rancho, Eastern Sandoval County Arroyo Flood Control Authority (ESCAFCA), Sandoval County, Town of Bernalillo, Southern Sandoval County Arroyo Flood Control Authority (SSCAFCA), and the Village of Corrales have signed the Agreement. It is anticipated that the remaining six agencies in the CMC will have signed the Agreement by July 1, 2016. Responding to a question from Director Borrego, Mr. Chavez stated the timeline to sign the agreement would be the start of the wet season, which is July 1, 2016. Responding to a question from Chair Thomson, Mr. Chavez stated that AMAFCA would like to improve the program, but expenses may go down. Mr. Lovato stated that decreases would not affect the FY-2017 budget. He further stated that for compliance purposes there should be some cost reductions in FY-2018. Responding to a question from Director Borrego, Mr. Nolan Bennett with BernCo stated that BernCo is working through the final details and should be signing the agreement soon. Responding to a question from Director



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Eichenberg, Mr. Chavez stated that AMAFCA will be the fiscal agent and the \$1,000.00 may not have been a realistic number for the fiscal agent, but AMAFCA is committed and will make it work.

Mr. Chavez explained the Monitoring program. Sampling must be conducted at a minimum of seven events, per sampling location during the permit term with at least three events in the wet season and two events in the dry season. Seasonal monitoring periods for the Wet Season are July 1 through October 31 and the Dry Season is November 1 through June 30. Monitoring will consist of collecting a minimum of four grab samples, spaced at a minimum interval of 15 minutes each. Individual grab samples for each sampling location will be preserved and combined into a single composite sample at the laboratory. Wet weather monitoring gathers information on the response from the receiving waters to wet weather discharges. Other areas covered included: Qualifying Storm Event, Sampling Locations, Sample Collection, Response to Monitoring Results, and Modification of Monitoring Plan from External Information.

13. Bernalillo County Joint Projects

a. Tower Road - Project Update

Mr. Bradley L. Bingham, AMAFCA Drainage Engineer, introduced Mr. Nolan Bennett with BernCo. Mr. Bingham stated that the project had languished a little and is only 60% complete. AMAFCA has paid their share; however, CoA is waiting for the design to be completed before payment is made. BernCo anticipates that final design will be accomplished in two to three months. Construction should begin approximately nine months after the design is finalized. Responding to a question from Director Brown, Mr. Bingham covered the area on the aerial. Responding to a question from Chair Thomson, Mr. Bingham stated the agreement provided that AMAFCA and CoA would split the cost of construction (\$1.6 million) and BernCo would provide the design, construction management, and the Letter of Map Revision (LOMR) to remove floodplain upon completion of the project. Responding to a question from Director Eichenberg, Mr. Bingham stated that BernCo would be on the hook if the project continues to lag; AMAFCA had already paid their portion. It was mentioned that BernCo should not come back to AMAFCA for more money since AMAFCA already paid the amount agreed. Mr. Bingham stated that the project will add material up to three feet above the existing road and it is a complicated tie into existing driveways.

b. Garduño Storm Drain - Project Update

Ms. Lynn Mazur, AMAFCA Development Review Engineer, stated that this is for the Ortega and Garduño Storm Drain. Ms. Mazur stated that Mr. Nolan Bennet with BernCo was present. Staff had presented a draft funding agreement at the December 2015 Board meeting. The Village of



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Los Ranchos (VoLR) agreed to provide funding for design and construction of improvements within their jurisdiction and have added a statement in the agreement that VoLR will not maintain drainage facilities within its property that receive runoff from outside its municipal boundaries. Attorney Autio had reviewed the agreement and the redline strikeout version was provided to the Board. Ms. Mazur asked the Board for review and comment on the agreement. Responding to a question from Director Brown, Mr. Bennett stated that since BernCo maintains the facility next to Paseo del Norte, VoLR would not be required to maintain the facility. The Board thanked BernCo for stepping up to help with this project to create solutions for the VoLR. Mr. Bennett stated the VoLR maintains they (VoLR) are handling 100% of their discharge. The Board thanked Mr. Bennett for the information and stated they would be interested to see how it really works for the residents of VoLR.

c. Southwest Valley Flood Reduction Project SWMM Model – Joint Project Discussion

Mr. Bradley L. Bingham, AMAFCA Drainage Engineer, introduced Mr. Brad Catanach with BernCo. Mr. Bingham covered the area from the aerial. He referred to a bigger map that shows all of the inputs. He stated capacities and flow rates of the drains were determined assuming all stormwater moved downstream from its input. The elevation head and culvert capacities at street crossings drive the system. The total length of the system from all three drains is approximately 20 miles. The Storm Water Management Model (SWMM) Program is a much better predictor of flows since it will allow water to go in either direction from its input. Mr. Lovato, AMAFCA Executive Engineer, stated the model is taking into consideration existing conditions and looking forward to the next 25 years. Mr. Bingham stated that Pond 187 was hydraulically modeled using the SWMM. Responding to a question from Chair Thomson, Mr. Bingham stated that the Hydrologic Engineering Center's River Analysis System (HEC-RAS) program was not fully suitable. The SWMM looks at the volume. Responding to a question from Chair Thomson, Mr. Catanach stated the Hydrologic Engineering Center's Hydraulic Modeling System (HEC-HMS) and Arid Land Hydrologic Modeling (AHYMO) do conflict with each other and the Environmental Protection Agency (EPA) will support SWMM. Mr. Bingham stated that the project includes widening drains, road crossings, etc. Mr. Catanach stated BernCo has started the model, which is 30-50% complete. Once done it will be turned over to the consultant. BernCo have surveyed the drain with GPS. Mr. Lovato stated there are certain points that go back to the USACE studies that might not be accurate. This will be a living model to be updated as projects come on line. Mr. Catanach stated that the Operations, Maintenance, Repair, Replacement, and Rehabilitation (OMRRR) that was signed a year ago, requires that both BernCo and AMAFCA co-manage flowrates and input locations into the MRGCD drains. Responding to a question from Chair Thomson, Mr. Lovato stated the MRGCD does not have a stake financially since they



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do not build projects. It is AMAFCA's responsibility as the local sponsor and the MRGCD has secondary approval process. Mr. Bingham stated the MRGCD is involved since they have a drain, but will not be involved with the model.

14. City of Albuquerque Joint Projects

a. Montano Levee – Project Update

Mr. Jerry Lovato, AMAFCA Executive Engineer, stated that the Federal Emergency Management Agency (FEMA) request additional information and staff is working diligently with CoA to get the requested information back to FEMA.

b. West I-40 Diversion Channel Phase IV – Consideration of Amendment to build multiuse trail

Mr. Jerry Lovato, AMAFCA Executive Engineer, stated that he had hoped to bring an amendment to the Board; however, CoA had not signed the original contract. CoA has changed wording in the agreement stating that AMAFCA shall invoice CoA 60 days from the signing of the contract versus 60 days after award of construction. He further stated he did receive confirmation from Mr. Jason Coffey, Trails Planner, for the Parks and Recreation Department that funding is available for design and construction of the trail, for \$300K. It is hoped that the amendment will be ready by the next Board Meeting.

c. South East Regional Flooding Reduction Project – Project Discussion

Mr. Jerry Lovato, AMAFCA Executive Engineer, stated that South East Region Flooding Reduction Project would address floodplain reduction. Staff met with CoA to discuss funding; however, some funds will not be available until the next Bond Issue. CoA wants to do the project; however, AMAFCA would prefer to manage the project in order to incorporate the San Mateo to Moon Mini DMP results. Mr. Lovato stated he anticipates an agreement in the next 2 months. Responding to a question from Director Brown, Mr. Lovato stated that if a pond gets flooded, San Mateo and Gibson gets flooded. Responding to a question from Director Brown, Mr. Lovato stated that AMAFCA had been working on this for over three years and Chair Thomson and others have been inquiring about it over the last year or so. He further stated that AMAFCA should take the lead on the KAFB pond and CoA should handle the other flooding in the vicinity.



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15. AMAFCA Projects

a. Upper Piedras Marcadas – Project Update review of alternatives

Mr. Bradley L. Bingham, AMAFCA Drainage Engineer, introduced Mr. Daniel Aguirre and Mr. Donnie Duneman with Wilson and Company, Inc. Mr. Bingham referred the Board to an aerial and a bird's eye view of the area. He covered the area and pointed out that Pond J and K are not part of the Master Plan. He asked for Board input and guidance on the three alternatives. Alternative 1 proposes a maximum diversion to the Mariposa watershed. He covered the various acre feet that will be diverted from various locations. Alternative 1 was developed with the Volcano Heights Master plan. Estimated cost is \$17.4M. Alternative 2 would maximize the area diverted to the Boca Negra Dam and the Mariposa watershed and would divert 71-acre feet. Estimated cost is \$21M. Alternative 3 would place no diversion to the Mariposa watershed and a minimal area would divert to the Boca Negra Dam. Most of the basin will drain to the Piedras Marcadas Dam, which will necessitate additional ponding in Pond 10 to divert an additional 6-acre feet. Estimated cost is \$16.4M. This alternative does not address the dam deficiency downstream and would require additional work. Alternatives One and Two addresses the dam deficiency.

Mr. Bingham covered the critical facilities: Pond 2 at Paseo del Norte, Unser Pond at the Petroglyphs, Pond 8 at Mariposa, and Pond 202B at the new Chamisa system in Unser.

Mr. Lovato stated that the purpose of the project would be to divert water out of the watershed. The majority of the cost is attributed to the installation of pipe to get runoff to the ponds. Responding to a question from Director Brown, Mr. Bingham stated that some ponds already exist and their shape may change. Responding to questions from Director Brown, Mr. Bingham stated CoA will manage the pond and the storm drain is in Oakridge. The water that will flow down Universe will go into the Boca Negra Dam. Mr. Lovato stated that not all of the infrastructure is in place today. Mr. Aguirre stated that the 36-inch pipe would bring 62 cfs up to 72 cfs. Responding to a question from Director Brown, Mr. Aguirre stated that the area is near by a school and undeveloped property. Responding to a question from Director Brown, Mr. Bingham stated that the grade line issue required separate pipe. Mr. Aguirre stated that the Paseo del Norte storm drain is limited to pond 2. He further stated that the Boca Negra Dam has two inlets. The Parks Service limits discharge into Mariposa Canyon. Piedras Marcadas is limited by 120 cfs. Mr. Bingham stated that there is a volume constraint due to the gated dam outlet. Responding to a question from Director Borrego, Mr. Bingham stated that the capacity in the dam would be appropriate for existing runoff. The storm drain in Unser is not constructed yet. The storm drain at Universe is restricted to 62 cfs. Responding to a question from Director Borrego, Mr. Bingham stated that Alternatives 1 and 2 or a hybrid of both alternatives would be better for the AMAFCA facility (dam downstream). Responding to a question from Chair



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Thomson, Mr. Bingham stated that a solution in the area would be to take the gate off the facility and add a gravity outlet. Mr. Lovato stated it is AMAFCA's intent for the pond to gather water and have a controlled discharge. Responding to a question from Chair Thomson, Mr. Bingham stated there a number of scenarios; however, the funding has not been finalized.

There was a brief discussion regarding why AMAFCA is getting involved with a number of projects after CoA has been approached by developers and others to provide assistance. It has become apparent that if drainage is mentioned for a project, CoA throws AMAFCA in the mix automatically, even if it is for a localized developed drainage issue. AMAFCA has identified where AMAFCA can take water and how much. AMAFCA needs to take the position that AMAFCA has done everything they can for areas that are not considered regional drainage. Mr. Lovato noted that AMAFCA maintains the MRGCD concrete channel and a lot of storm drains outfall into regional areas, through pipelines, and then into channels. The Board suggested buying real estate near pond 2 and Unser pond, but not build a facility. Property developers need to be building their own infrastructure. Responding to a question from Director Borrego, Mr. Bingham stated there are approximately 30 property owners impacted. Mr. Lovato stated that the document is approximately 95% complete. The final document will be drafted and a public meeting will be held.

Mr. John Kelly with MRGCD stated that it may be possible to place a storm drain pipe along the MRGCD Corrales Main Cannel, much like the AMAFCA project that will install a drain pipe along the MRGCD Gun Club Lateral to drain three dams. Mr. Lovato stated that AMAFCA did study that option and that it would take a 60-inch pipe installed along the Corrales Main Cannel to the Rio Grande and would cost approximately \$6.5M. Director Borrego stated that while she was campaigning she noticed a lot of runoff, especially in the Petroglyph area. She acknowledged that the National Petroglyphs are on federal property; however, it would be something that AMAFCA might consider addressing in the future.

Mr. Bingham stated that in order to finalize the document, staff was requesting Board input and guidance on the preferred Alternative(s), and which facilities are to be deemed critical and/or regional in nature. He further stated that it appears Alternatives 1 and 2 are the better ones and not to include Alternative 3 in the document. There is the need for a water quality feature and extra sediment removal. Planning for 20-acre feet of storage will allow either option. Mr. Lovato stated that everything west of Universe needs to drain south. There was a brief discussion regarding AMAFCA putting in more than 35 percent for cost share agreement. Ventana Ranch was given as an example where there was a 35/65 cost share and the developer donated the land. Developers need to approach AMAFCA with 35/65 funding, not a 50/50 cost share, and they should expected to donate land for drainage.



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16. AMAFCA Field Highlights

a. Field Report

Mr. Kurt Wagener, AMAFCA Field Engineer, gave a report of various projects and events over the past month.

The slides opened with a picture of a horned toad taken at Ladera Dam 5, a hawk at Don Felipe Dam, and an owl at Mariposa Diversion. The presentation continued with a slide of AMAFCA staff wearing rain ponchos for preparation of the upcoming monsoon season, work done by Mr. Patrick Chavez, AMAFCA Stormwater Quality Engineer on both a level logger and water quality monitoring sampling taken at the Embayment, AMAFCA crew at the Amole Dam for concrete repair, cleaning the Domingo Baca Water Quality structure, aeriels of the Pajarito Arroyo South B, AMAFCA crew doing vegetation removal at SDC. Various slides of the COA work being done at the Hahn near Comanche to California where AMAFCA received complaints; however, CoA was responsible for the work. The presentation continued with slides of the Miscellaneous AMAFCA Construction Projects work on the AMAFCA retaining wall, Depths Markers at the Alameda gauges and on the Embudo/NDC. Various slides of the COA cleanup of the homeless sites that were in very close range of the Lobo Little League site at Balduni Park/NDC, various slides on the COA Osuna and Singer Widening Projects, multiple slides of the APS RFK Pedestrian Bridge, Agency and Area-Wide COA Bear Canyon concrete repair, NDC floor overlay for the AMAFCA portion, and closed with pictures of burrowing owls taken at the Guac Dam Site.

b. Construction Report

Mr. Kurt Wagener, AMAFCA Field Engineer, referred to the Construction Report. There were no questions.

17. Real Estate

a. Independence Square on the South Pino Arroyo – Consideration for Approval of Turnkey Agreement for Storm Drain Connection

Ms. Lynn Mazur, AMAFCA Development Review Engineer, stated that a license was approved at the March 2016 meeting. Ms. Mazur further stated that the license had not been executed. Recently, AMAFCA adopted a new practice of assuming maintenance of certain drainage facilities in its rights-of-way and this turnkey agreement falls under the same procedure.



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The storm drain will run through the Calvary Church parking lot and discharge into the South Pino Arroyo. Ms. Mazur stated this is one of the few recent projects not subject to the USACE's 408 permit since the channel was constructed under AMAFCA's funding in 1989.

Director Brown made a motion that the Board approve the Turnkey Agreement, and authorize the Chair to execute the Agreement. Director Stover seconded the motion, which passed (5-0).

18. Climatology Update – 2015 – 2016 Winter Summary and 2016 Monsoon Probabilities

Mr. Kevin Troutman, AMAFCA GIS Manager, gave a presentation on the 2015-2016 Winter Summary and the 2016 Monsoon Probabilities. He opened with a picture of the Dog Head Fire plume and stated that fire debris did not flow into any AMAFCA Facility. Precipitation accumulation from November to May and January to June was reviewed. Rain in Texas caused flooding there and storms split locally. Precipitation Anomalies were covered and explained. The months of November through January were okay with temperature around climate average. February turned to dry and warmer weather. March was warmer and tied for the 10th driest on record. April was warm. May was dry, but nice and cool. Classic Monsoon Pattern, Reverse Monsoon Pattern, and Monsoon Prediction were reviewed. The Climate Prediction Center is forecasting an equal chance of normal precipitation for the monsoon season. The Albuquerque Forecast Office is also predicting an average monsoon season as well. The dry conditions that have preceded the onset of the monsoon generally indicate that the first few storms may generate more bank erosion and sediment deposition within the AMAFCA system until vegetation begins to anchor the soils.

The Climate Prediction center is forecasting the onset of a La Niña conditions in the equatorial Pacific. La Niña generally creates dry and warm conditions during the winter for the southwestern United States. This will mean dryer conditions next winter.

The new sampling requirements from the MS4 permit have added a new layer of forecasting difficulty. Previously, most critical forecasting was done for construction purposes. The risk of significant rainfall was used as a factor for scheduling full depth repairs within the AMAFCA channels.

AMAFCA forecasting can be broken down into long term non-monsoonal forecasting and short term monsoonal forecasting. Most non-monsoonal forecasting occurs outside of the July-September period. The National Weather Service briefs AMAFCA every Monday, along with a number of other entities. This briefing is used in conjunction with the North American Model (NAM) and Global Forecast System (GFS) from NOAA to identify issues that may arise from large-scale weather events, more common outside of the monsoon season.



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For short range forecasting, the High Resolution Rapid Refresh model (HRRR) is used to establish estimates for the onset of rainfall, usually from a frontal passage.

Monsoonal forecasting for Albuquerque is a little more difficult. The high-resolution models have some success identifying when convection may initiate and can give a general area. Unfortunately, due to the small size of thunderstorms, the models cannot give an accurate prediction of the exact location, nor the intensity of storms. Another issue in predicting storms within the AMAFCA jurisdiction is that the initiators of many storms are outflow boundaries from storms over the higher terrain. AMAFCA looks at the atmospheric soundings each morning, during the monsoon season, to look at temperature profiles and moisture content to estimate the strength of storms that may arise during the day. Radar is the best prediction tool during the summer afternoons and evenings.

The requirements for the MS4 sampling program provide some complications. AMAFCA needs to sample a number of storms that meet or exceed 0.25 inches of rain. Auto-sampling equipment can be used to collect a sample for most parameters. The sampling for E. coli cannot be held longer than 6 hours. Using radar, AMAFCA can estimate if the storm met the required sampling parameters. This will not work in the eastern portion of Albuquerque. Radar reflection from the mountains and the resulting mask obscure any radar data from the heights. There are no reliable automated rain gauges within the area. AMAFCA uses the Community Collaborative Rain, Hail, and Snow Network (CoCoRaHS) for rainfall totals. These are 24-hour totals, reporting at 7:00 a.m. each morning. This reporting time may exceed the hold time for an E. coli sample. These reports also do not differentiate between storms, should more than one event move over an area.

Responding to a question from Chair Thomson, Mr. Troutman stated that he was able to monitor the Dog Head fire and could make the determination that debris from the Dog Head fire did not flow into any AMAFCA facility.

The presentation was well received.

19. Unfinished Business

None.

20. New Business

Responding to a question from Director Borrego, Mr. Lovato covered various security measures, including training, in place at the AMAFCA office and in the field. Responding to a request from Director Borrego, Mr. Lovato stated that he would work on getting first responders to make a presentation to the Board.



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Responding to a question from Director Eichenberg, Mr. Wagener stated Academy Hills Park, west of Eubank, is a CoA park. CoA Parks and Recreation Department graded the area and due to high fines from the Albuquerque Bernalillo County Water Authority, quit water the landscaping on the south half of the park. He further stated he had spoken to Mr. Kevin Daggett and Mr. Keith Reed about erosions along the channel (damaged landscaping) and they were working a plan to repair the area. Mr. Daggett had informed him that CoA is looking for money to fund a repair using the Agency and Area-Wide Contract.

21. Adjourn

There being no further business to come before the Board, Chair Thomson adjourned the meeting at 1:24 p.m.

Ronald D. Brown, Secretary-Treasurer, 7/28/16