

SOUTHERN SANDOVAL COUNTY ARROYO FLOOD CONTROL AUTHORITY  
(SSCAFCA)

MINUTES OF FEBRUARY 15, 2013  
BOARD OF DIRECTORS REGULAR MEETING

CALL TO ORDER.

The regular meeting of the SSCAFCA Board of Directors was called to order by Donald Rudy, Chairman, at 9:032 a.m.

ROLL CALL OF DIRECTORS.

Directors in attendance were Mark Conkling, James Fahey, and Donald Rudy. John Chaney was noted as absent. Steve House arrived at 9:30 a.m. Charles Thomas, Executive Engineer, Bernard Metzgar, SSCAFCA's attorney, and members of the public were also present.

ANNOUNCEMENTS.

Announcements were made by Donald Rudy that all electronic devices needed to be turned off during the meeting and that the microphones are voice activated.

PLEDGE OF ALLEGIANCE.

The Board was led in the Pledge of Allegiance by Donald Rudy.

APPROVAL OF AGENDA.

A motion was made by mark Conkling to approve the Agenda as presented. It was seconded by Jim Fahey and passed unanimously.

ACTION/APPROVAL OF THE MINUTES OF DECEMBER 14, 2012 AND JANUARY 2, 2013.

A motion was made by Jim Fahey to approve the Minutes of December 14, 2012 and January 2, 2013 as presented. It was seconded by Mark Conkling and passed unanimously.

PUBLIC FORUM.

None.

STAFF REPORTS:

*Executive Engineer:*

1. Action/Acceptance of Resolution 2013-5, Clean Water State Revolving Fund Agreement.

Charles Thomas stated that Resolution 2013-5 is for the Clean Water State Revolving Fund Agreement. This will provide funds to complete work with the Lower Montoyas Water Quality Project. This agreement is a combination of a loan/grant package provided by EPA through the NMED.

Eric Haragan, of RBC, stated that the total amount of the loan is \$1.25 million, there is also \$750,000.00 grant, so the total funds available is \$2 million. The money is drawn down over time and once the completion of the project has occurred, the loan program starts. It's a 20 year loan at 3%. The real benefit is the \$750,000.00 grant. Over the life of the loan there's only about \$450,000.00 in total interest. Because the grant is higher than the interest, the actual rate is -1.45% to SSCAFCA. This is a great program for governmental units.

Tommy Hughes, SSCAFCA's bond attorney, stated that the Resolution sells a general obligation bond to NMED. This is a first time this procedure has been used for both entities.

A motion was made by Jim Fahey to approve Resolution 2013-5 as presented. It was seconded by Mark Conkling.

Roll call vote: Mark Conkling, yes; Jim Fahey, yes; Donald Rudy, yes. The motion carried 3-0.

Mr. Thomas stated that staff is working on several federal forms for this project. The next step will be that the NMED will submit the package to EPA for approval, which should be reasonably automatic. Staff has been getting the construction RFP prepared.

2. Climate Change Presentation.

Mr. Thomas stated that the Board has expressed interest in climate change and Dr. Ariane Pinson has developed a presentation on it.

Dr. Ariane Pinson, of the Corps of Engineers, stated that she is interested in where we are with regard to climate change relative to how models have projected climate change. It's difficult to get a sense of how much we have warmed relative to what the models say. They did a study at the Corps looking at sedimentation in Cochiti Lake. They ended up with results that varied greatly. Generally, you look at the average of the averages, which becomes your baseline. Then you have a study period and take the averages of those averages, and you end up with a number for that second

period. Your anomaly is the difference for those two numbers. Models differ in their sensitivity. She went through several preliminary slides that show information that she found not very useful.

Dr. Pinson stated that she wanted to know where we are headed now. The reasonable, available data she was able to gather showed the daytime high temperature, nighttime temperature, and rainfall. Looking at temperature, she extracted the average temperature for 1971 to 2000 for each month of the year for each site. She did the same for 2000/2001. Then she computed the anomaly. She took the difference for those and then aggregated. She was generally happy with the result when she took data for the mountain sites and data for the valley sites and got curves that were very close to each other. The red circles on the top diagram are significant. Summertime temperature (April through the end of July) have gone up in the past 10 years about a degree centigrade (about 2 degrees Fahrenheit). There has been less warming in August and September. October is almost normal. November has shown the most change. She can run in shorts in November. That Indian Summer/fall plows on right through Thanksgiving and into December before it gets cold. This is seen all across the Rio Grande. We get into December, we get some nice winter storms in, and the temperature drops back down to "average" temperatures. The overnight temperature in the mountains is higher than the other temperatures on the graph. They think that there is a process by which, in moist areas during the day the warmth is used to evaporate water; at night, that water condenses and released heat. The precipitation is coming down to the valley floor more often than it used to. Everything is warming, but nighttime temperatures in the mountains are warming a little faster.

Dr. Pinson stated that the warming trend in the Sandia Mountains tracked a similar warming in the San Juan Mountains over a ten year period. The New Mexico temperature, when averaged over all of the 20th Century, there is about a tenth of a degree century warming. This is typical to see faster increases for shorter periods of time. The global temperature graph from 2007 sees the same accelerating trend. Things appear to be going faster. The warming trend is showing that we are warming at a faster rate than history has shown. If we continue to warm at this current rate, it will be almost 2 degrees Centigrade by 2020, which is a little over 3 degrees Fahrenheit. There was an average 10% loss in the mountains, and 3% loss in the valley, and a decline of 7% of precipitation over all of New Mexico.

In response to a question if this had happened before humans were on the earth, Dr. Pinson stated that there is ice core data from Greenland and Antarctica that show a temperature rise of 2 degrees Centigrade in a 100 year period, which resulted in massive reorganization of vegetation communities, a complete change in North America's hydrology and precipitation patterns and massive fauna die off. That's the fastest known rate of change. However, those numbers never got above 300 parts per million. We're at 390 parts per million right now.

Dr. Pinson stated that the data show a reduction in spring run off. This means that the snow pack melts earlier. This trend will continue. We will have warmer winters, rain falling instead of snow, earlier snow melt, less total volume in rivers for the peak spring flow. There will be a repeat of the 2005 El Niño year. Right now, we have mostly low flows and some higher flows. On average, we get more frequent low flows over time. But, we also get occasional really bad flows. We get this because precipitation is likely going to be concentrated in big storm events. Warmer temperatures lead to greater evaporation, which leads to less soil moisture, which dries out the vegetation, and kills trees. It also will make conditions very ripe for wildfires to grow and spread quickly. This completely alters the hydrology of the canyons, making small flows equivalent to rain falling on a parking lot.

Ron Reeder, a member of the public, asked about the model assumptions and the back up data that would justify the existence of the occasional high flows as opposed to the lower flows as things get drier. Dr. Pinson stated that she doesn't know enough about the models to answer the question. Based on what she's seen in the last several years, the changes in the watersheds that are likely to happen is that climate change will stress the vegetation. In four months' time she will have worked with the models and will know the numbers much better. She has not looked at habitat changes of smaller animals. She has seen in trees when they die off because it's too dry, they reestablish themselves at a higher elevation. We have missed the boat on cutting off warming 2 degrees; we are at 3 to 5 degrees right now. We're not addressing this as we should. If you look at the drought of the 1950s, it was driven by a precipitation deficit; if you look at the drought in the last ten years, it's driven primarily by temperature.

Dr. Pinson stated that small changes in the mean really matter. Between 800 and 1200 A.D. there was a period known as the Medieval Warm Period. This period represented 2/10 of a degree Centigrade warming across the Northern Hemisphere only and was driven by either volcanoes or sunspots or both. It was highly variable, but on average, temperatures warmed "a little bit", much less than they've already warmed here. The consequence of that warming was that the English could grow grapes and produce wine. More importantly, it allowed some isolated Chiefdoms in a remote part of Scandinavia to grow a lot of food, when previously, they couldn't. They were very crowded as they didn't have a lot of farm land, but they had to keep the people happy by providing them with food, so they began raiding all of Northern Europe. They are known as the Vikings. The Viking explosion happened as a consequence of 2/10 Centigrade warming in temperatures that permitted agriculture to grow in the Norse countries. The Vikings expanded to Greenland and to Iceland. Then they expanded to North America. Some time around 1200, things began to go really bad. Major drought in the Southwest from 1200 to 1225 and then there was a 50 year drought from 1250 to 1299. Both are associated with warfare and with large depopulation events. In Greenland, they used up all the wood, they no longer had boats. Farming went south and

they couldn't feed themselves. They were unable to get out of the fjords and the colony gradually starved over 100 year period. Small changes in average temperatures have big changes in precipitation and growing season length and resource availability; the existence and placement of rainfall, fishery stocks and the productivity of farmland and of our crops.

In response to a question, Dr. Pinson stated that carbon stays in the atmosphere for about 100 years. A certain amount of ongoing warming is built in once it has been emitted. To achieve a rapid leveling off, we would have to stop burning all carbon based fuels and convert immediately, globally, to wind and solar energy. This would require massive exchange of technologies and massive trust between governments and lack of exploitation of the people.

Dr. Pinson was thanked for her presentation.

3. Legislative Update.

Mr. Thomas stated that there are four things of significance that are going on at the Legislature right now. SSCAFCA successfully applied for the Water Trust Board funding. Those projects did go through Tier 1 evaluation to determine placement to authorize funding. SSCAFCA is now listed on Senate Bill 228, which is the bill that authorizes the funding of those projects. The actual distribution of the funding will not take place until after the close of the session and the Water Trust Board will complete that process. It is not for sure that SSCAFCA will receive funding until then.

Mr. Thomas stated that staff submitted two requests for capital outlay, \$300,000 for completion of the pedestrian bridge near Maggie Cordova School and the Black Arroyo Open Space Wildlife Park and \$400,000.00 to assist with matching for the Water Trust Board project for the Lomas Negras Water quality feature. Both of these requests have been signed off on and are included in the final outlay request. Staff won't know what happens with that until it's been signed by the Governor. He stated that SSCAFCA received support from the Village of Corrales on the Lomas Negras (Water Trust Board project).

Mr. Thomas stated that House Bill 21 is tracking the notice for public meetings and changing that from a minimum of 24 hours to a minimum of 72 hours. Currently, SSCAFCA puts out its initial notification a week in advance, so this should not significantly impact SSCAFCA, however, staff is tracking the Bill to see if it gets passed.

Mr. Thomas stated that Senate Bill 27 proposes changes to PERA to increase its solvency. If this Bill passes, it would result in a 1.5% increase in contribution by SSCAFCA for its employees, as well as a 1.5% increase by SSCAFCA's employees directly.

4. Willow Creek Watershed Management Plan Presentation;
  - a. Action/Acceptance to pursue acquisition of Compeche Pond Properties.

Mr. Thomas stated that roughly a year ago, it was discovered that SSCAFCA had one small basin sandwiched in between the Barrancas and the Venada which was named Willowcreek Watershed. That project was completed in-house.

Mr. Gerhard Schoener stated this area is located between the Barranca Arroyo and the Venada. It consists of four major basins. The bottom one is the Red River Watershed. The City of Rio Rancho has a facility planned for that watershed. Staff analyzed the other three basins. There are a couple of areas that drain to the river separately. Those were not analyzed either because they are fully developed and have drainage infrastructure and there are no off-site flows into those areas. All three basins cross NM 528 and Willowcreek Road. There is a future diversion area in the upper portion of the green basin which will be diverted to the Venada. Development overall in this area ranges from about a quarter to about 60% in the small basin. Some of the area is developed, but for future conditions model they had to make assumptions regarding what kind of development would happen. The assumptions are based on the City's specific area plan. For areas where there is no detailed plan they assumed it will develop according to existing platting and development. Hydrology results for selective points in the watershed are also shown. They run two different models. One is called existing conditions and the other is developed conditions with existing infrastructure which is based on projected land use. Right now, at 528, there's about 400 cfs under existing conditions for the 100 year storm. The estimated capacity of the crossing structure is lower than what is expected for developed conditions and that's true for a lot of the crossings in this system. In addition to peak flows, they looked at volume as well. Increasing volumes have the potential to increase erosion, especially in natural systems. Also, if there are existing ponds or dams, and we get high run-off volumes under future conditions it could mean that the ponds are undersized if the volumes were not accounted for.

Mr. Schoener stated that many of the existing crossings at major roadways are not capable of handling the developed conditions flow rates. The one at Paseo del Volcan is a 30 inch culvert that is partially full of silt. It can handle about 30 cfs and the existing conditions is 255 cfs, which is actually higher than developed conditions because the water will be diverted. Most of the culverts along 528 are not capable of handling the expected flow rates and neither will the one at Willowcreek Road. The second problem areas are the reaches of existing arroyos. The concerns are related to peak flow rates. There is a small drainage easement but there is no right of way set aside for drainage. Some of the houses have been built in proximity to the arroyo, so under high peak flow conditions there could be a problem with flooding. There is an existing pond at the upper

end of the reach and the outfall points straight at someone's back yard. The other problem is that it's a natural system with no grade control structures in it so it's fairly steep. With increased volumes SSSAFCA can expect problems resulting from erosion. All three basins have the same problems.

Mr. Schoener stated that drainage improvements to these basins would be mostly of a local nature or improvements to already existing drainage facilities. These would not be of a regional nature like SSSAFCA would normally do. There is one proposed pond (Compeche Pond) that would be a regional facility that would intercept flows from the upstream area and coinciding with roadway improvements and stormdrain would resolve issues in the area. The City is planning improvements to Idalia Road, so if the pond improvements and the roadway drainage improvements coincided, that would be ideal. Pending Board approval, staff would like to pursue right-of-way acquisition for this pond. SSSAFCA would need about 3 acres total for the pond.

Mr. Thomas stated that SSSAFCA developed this plan to provide an opportunity for guidance for the City and/or the County to pursue solutions. SSSAFCA could certainly partner with those entities to resolve some of these issues. He stated that staff has been in discussion with the City, so several of the options that were considered early on were discounted due to existing specific area plans that the City had previously developed. He would like to work with the City to move everything forward. He stated that staff can approach the City to get it into a presentation for the City Council in order to work together with the City for planning purposes.

A motion was made by Jim Fahey to approve pursuing acquisition of the property for Compeche Pond. It was seconded by Mark Conkling and passed unanimously.

5. MRCOG funding application.

Mr. Charles Thomas stated staff completed an application and turned it in with MRCOG. There are several sources of federal highway money available locally to members within the COG. One of those is the transportation alternative program funds. Those funds are designated for pedestrian traffic. SSSAFCA submitted an application for funding in the amount of \$625,000.00. The purpose of the funding would be to complete several pedestrian bridges, associated trails and parking structures within the Black Arroyo Open Space Wildlife Park Area. Staff should know by next Tuesday whether or not SSSAFCA will receive any funds.

6. Development Status Update.

Mr. Charles Thomas stated that there has not been significant development within SSSAFCA's jurisdiction. The most significant work has been within the Unser Pavilion Project

which is adjacent to SSCAFCA's Gateway Pond area. They are moving forward without pursuing filling in the northern leg of the pond. The project is now back to the base hydrology.

***Environmental Services Director:***

1. Harvey Jones Channel improvement project update.

Dave Gatterman stated that there were two potential options for this Channel improvement, the concrete box culvert and the trapezoidal channel. The NMDOT did not like the trapezoidal channel because the improvements would be outside the right of way of Corrales Road. Since the trapezoidal channel could not be used, staff turned its attention to the concrete box culvert. This option is suspect whether it will work under the 100 year ultimate flow conditions. The model shows that it's very sensitive to any type of fluctuation or instability. They came to the conclusion that the concrete box culvert doesn't give a whole lot more peak flow until you hit a pressure condition. A pressure condition is a bad place because it reduces the capacity of the existing bridge and the concrete box culvert. In discussions during that meeting, they had Bohannon Huston modify the hydraulic memo to SSCAFCA to be presented to NRCS. Staff has now identified that adding this concrete box culvert will not get SSCAFCA to where it needs to be and that the trapezoidal channel option will have to be pursued. This will mean that SSCAFCA will have to go to Santa Fe to meet with FHWA to try to convince them that, while it's not within the right of way, it preserves the right of way. Adding the concrete box culvert is not a good use of the money and will inconvenience the public much more than the trapezoidal option will.

Philip Gasteyer, Mayor of the Village of Corrales, stated that the Village is anxious to assist in any way to support SSCAFCA in this endeavor.

2. Lower Montoyas Water Quality Feature project update.

Dave Gatterman stated that this project is moving forward on the funding side. In preparation for that, staff is close to finishing development of the RFPs for development services for the project. Currently, all materials are with legal counsel being reviewed. Once that review has been completed, it will be transferred to NMED for its review. Once they say it's okay, staff will issue an RFP. Staff is looking at getting the RFP out by March 8, 2013. Selections hope to be made and before the Board for approval by the April meeting. Staff wants it out to bid by November 2013.

3. Black Arroyo Open Space master plan project update.

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Dave Gatterman stated that there was a recent meeting among the Corps of Engineers, SSCAFCA, Maggie Cordova Elementary School, Rio Rancho Public Works, and Rio Rancho Parks & Recreation to talk about this project. Everybody seems to be on board with it and that it is a positive project. It is moving along very nicely. The consultant should start transmitting elements of the draft master plan by Friday of next week. The plan will come in in chunks. Staff will then provide comments to the consultant and then to the City. It will then go to another public meeting to review the draft management plan by March 13, 2013.

4. MS4 permit update.

Dave Gatterman stated that SSCAFCA has received an invitation from the EPA to attend a meeting on February 26, 2013. The email does not indicate exactly what the meeting will entail.

***Fiscal Services Director:***

1. Recognition/Acknowledgment of the Fiscal Services Report for January 31, 2013.

Deborah Casaus presented the Fiscal Services Report for January 31, 2013 in the Board's packets. She stated that operating property tax revenue, after about 7 months, is at 62% of SSCAFCA's budget projection. Debt service is about 67%. This means that SSCAFCA's revenue projections are pretty accurate and SSCAFCA is where it should be. General fund expenditures, fiscal year to date, are about 29.5% of the total budget. If you take out the large storm clean out item, SSCAFCA is about at 33% of the total budget. Regarding the City of Rio Rancho single family residential permits, at the time of the report, they only had December information. The City finished 2012 in a good place, at about 28% higher than the previous calendar year. For the month of January the City had 50 permits issued, which is significant because in January 2012 the City had 19 permits issued and in 2011, the City had 5. Interest earned on the State Treasurer's funds was at a rate of .133%

Ms. Casaus stated that they are beginning the budget process, so they did meet with the Budget Committee, as well as the Personnel Committee. A preliminary budget will be brought to the Board in April 2013.

The Fiscal Services Report for January 31, 2013 was recognized and acknowledged by the Board.

2. Action/Acceptance of Selection/Agreement for Sediment Removal and Construction Services.

Deborah Casaus stated that an RFP was issued for these services. There were a total of five responses; however, two were deemed non-responsive for technical errors. The Committee felt that the remaining three companies were very good and staff recommends contracting with all three companies on an on-call basis for sediment removal and construction services. The companies are CBKN Dirtworks, Rak Construction and PG Enterprises.

A motion was made by Jim Fahey to accept the selections for sediment renewal as presented. It was seconded by Steve House and passed unanimously.

3. Action/Acceptance of contract renewal with Godfrey Appraisal Services with no requested changes.

Deborah Casaus stated that this is the second year of a four year contract with Godfrey Appraisal Services. There have been no changes requested.

A motion was made by Jim Fahey to accept the contract renewal with Godfrey Appraisal Services as presented. It was seconded by Mark Conkling and passed unanimously.

***Field Services Director:***

1. Roskos Pond Rehabilitation Project Discussion.

Jim Service stated that they pumped 48,000 gallons of sludge from the facility and had to take it down to Rio Bravo and Second to the only waste water disposal plant that will take sludge of this type. At one time he had three pump trucks and five roll offs and two crews trying to get this taken care of. All the cattails have been removed, all the sludge is removed. The last phase of the project will be to remove about 200 yards of material. This facility has a liner and what happened is that the soil is supersaturated with water. Once it gets all dug out, he's going to dig down and cut the liner back to give it a place to drain. Native grasses will be put into the area. Once this one is done, they will move onto the upper pond. He would like to make that a rainwater harvesting demonstration project and change SSCAFCA's focus from a wetlands project to a more water-wise project. He will work with Parks and Rec on this. By the time everything is done, it will cost in the neighborhood of \$100,000.00. This includes the four bay, upper, and re-design, re-plant, get out, clean up and finalize the project. Given the problems with this project, SSCAFCA should get away from wetlands ideas. Remediated wetlands work is great back east, but they don't work so well here.

**CHAIRMAN'S REPORT.**

None.

**BOARD OF DIRECTOR'S COMMENTS.**

None.

**COMMITTEE REPORTS.**

None.

**ATTORNEY'S REPORT.**

None.

**PROPERTY MATTERS.**

1. Action/Acceptance to purchase properties within:
  - a. Upper SLO Dam – Unit 21, Block 71, Lots 18, 22 & 27, 1.97 acres;
  - b. PDV Dam – Unit 21, Blocks 113, 114, 118 & 119, Lots 1, 2, 3, 4, 7, 16, 17, 18, 20, 29, 30, 32 & 33, 8.67 acres;
  - c. Montoyas Arroyo, Arroyo Panta de Leon – Unit 22, 149.53 acres;
  - d. Environmental Mitigation – Unit 10, Block 33, Lot 88, .5 acres.

Mr. Charles Thomas stated that staff will require Board approval to purchase the above-listed properties. Mr. Rudy stated that all of these items have been discussed before.

A motion was made by Mark Conkling to approve the purchase of the properties as presented. It was seconded by Jim Fahey and passed unanimously.

**FOR YOUR INFORMATION:**

1. Corrales Comment article, "What's Ahead for 2013," (01/05/13).
2. Corrales Comment article, "Setback for Preferred Fix to Jones Bridge," (01/19/13).

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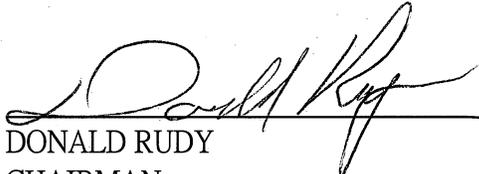
3. Corrales Comment article, "Bridge Over Jones Channel for Bike Link to Loma Larga," (02/09/13).
4. 2013 Legislative Guide Article, "Corrales Priorities," (02/2013).

**OTHER BUSINESS.**

- Next Regular Board Meeting is on Friday, March 15, 2013 at 9:00 a.m.

**ADJOURNMENT.**

A motion was made by Jim Fahey and seconded by Steve House to adjourn the meeting. It was carried unanimously. Meeting adjourned at 11:15 a.m.

  
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DONALD RUDY  
CHAIRMAN

  
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STEVE HOUSE  
Secretary

DATE APPROVED: 3/15/13

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