

**Administrative Control Board Meeting
Box Elder and Perry Flood Control
Special Service District
Perry City Offices 3005 South 1200 West
5:00 PM Wednesday, April 15, 2015**

Members Present: Chairman Greg Hansen, Board Member Boyd Hirschi, Board Member Bob Thurgood, and Board Member Kevin Pebley

Member(s) Excused: Board Member Maurice Roche

Others Present: Matt Robertson, Jones & Associates

1. Welcome & Call to Order

Chairman Hansen welcomed and called to order the Box Elder and Perry Flood Control meeting.

2. Approve February 18, 2015 Minutes

MOTION: Board Member Thurgood moved to accept the minutes of March 18, 2015. Board Member Hirschi seconded the motion. All in favor.

3. Public Comments

There were no public comments.

4. Review Bids for the Geotechnical study done on Mathias and Evans proposed Debris Basins.

Matt with Jones & Associates explained the geotechnical proposals for Mathias and Evans Canyons. He said they put in two Scopes, the first Scope was they asked for cost perform debris flow analysis, which included the study of both canyons and coming up with the volume of debris flow in an event as well as potential run out distance of the debris flow out of the canyon and they asked them to include any mitigation measures. Matt said they also asked them to address the main concern on existing development and future development in that area. He stated that Scope 2 was a little broader and it was to provide costs for the geotechnical work for the debris basins themselves. He said they told them that Scope 2 would be what they decide after they receive the debris flow analysis. Matt stated after they receive the study they would have to look at it with the board and decide how they want to proceed with the project. He reported that they received 4 proposals from AGECE, IGES, GSH, and GeoStrata. He said they got quite the range on the cost. Matt reviewed each proposal with the board. He said AGECE firm, the pros is the cost, and it is cheap compared to the others. He stated what they proposed on the debris flow analysis is just do a desk top review with 1 site visit. Matt said that they would pull up topography and pull up the different maps and based on the information he can gather from geographical maps. They would use other studies from the area, and come up with a debris flow volume. Matt felt that it was similar to what they have already done; only it is done by a geologist. Matt stated that he talked with the geologist from AGECE. He said the Geological Survey has guidelines. Matt reported that Rich Gerro is a specialist as far as debris flow studies go. He said that Doug with AGECE has a

document out that has guidelines for debris flow studies and he admitted that he is not following all of the guidelines. He said one of the guidelines is that he has to pull up all the lidar maps to pull up the geologic maps, what he didn't propose to do was do tests on the alluvial fan to see past events that have occurred. He also did include a cost to use the hydrology of the canyon. Matt stated that it is a quick, cheap study it doesn't follow all those UGS requirements and a lot of assumptions are made. When he talked to Doug at AGEK he said he found that the UGS requirements were not very useful. The other bid is to do geological study on the other debris basins that the board decides to do. He said we don't have it really defined yet and if we go beyond his scope his fees will be a little higher than other firms.

Matt stated that IGES had \$7,700 for the debris flow analysis and \$7,100 for the geotechnical work. He said they were a little bit more than AGEK as far as the scope on the debris flow analysis. Matt reported that they didn't have anything on there to come up and test the Alluvial fan for past events like it recommends. He said they said that they could use the RB&G report from 1986 to help with their debris flow analysis. He explained they do have a geologist on staff and they don't do a lot of the debris flow studies, but they have done them in the past. Matt stated what he like about this firm is that they put this is our overall cost and expense with not to-exceed amount but will bill on a time and expense basis. Matt reported that IGES and AGEK both stated this was their lump sum costs.

Matt stated that they were not impressed with GSH they were quite a bit more money. He said they did have a sub Western Geologic Geologist that gave them a price. He stated that the Western Geologic is very experienced. Matt reported that their geotechnical work was in the higher range. He said they didn't like that it was a fixed price since they haven't got the debris flow study done.

Matt reviewed the last one, and the most expensive one, GeoStrata. He said they are very qualified and they have a Geologist there named Tim Thompson. He said they have been very involved in a debris flow that happened in Alpine; He commented they have done a lot of debris flow test in the past. Matt stated that Mr. Thompson is the main Geologist but they have other Geologists on staff. Matt felt that they are the most qualified and felt the best about the quality of work. He stated that they did the most indebt proposal. He said that they had quit a few scopes in their proposal. They looked at everything that it would potentially take to do it. That is why they were quite a bit higher. He said they want to follow at the UGS guidelines. He explained they would do some tests at the mouth of the canyon and look at the alluvial fan to be able to tell what has happened in the past. Matt said that they recommended a new hydrology study they said with a debris flow analysis they look at a 200 year storm and post fire conditions. He stated he agrees with them but the cost of another hydrology study is obviously going to take the cost up. He asked them if they could use the RB&G report from 1986. Matt stated that Mr. Thompson said they would recommend a new one but if the board was ok with it they would use those numbers. Matt reported that they put an estimate amount of \$7,000 for a new hydrology study and they would ask another firm to come and do that. He said that it would be in the best interest of the flood control to hire that out separately to save on

cost. Matt stated that if the board went through them they would add their markup on it. He said that their Scope 2 cost is quite a bit higher. He explained depending on what we come up with on the debris flow study, if it's going to be a pretty large dam classified as high hazard by the dam safety. Matt stated that they will come out and make them do quite a bit more work. He said that \$22,000 includes having a drilling rig come out on the fire break road and go 75 feet deep or 20 feet into the bedrock. Matt stated that the \$22,000 would be if we had to do a high hazard structure. Chairman Hansen asked if Scope 1 and Scope 2 have to be together or can it be separate. He asked if the board could approve Scope 1 and get the analysis done separately. Matt said it was not specific that it would be awarded on both. Matt said who he felt would do the best job they are also the most expensive, and that is GeoStrata. They did say they would work on a time and expense. They asked if someone could bring an excavator to dig the test pits so they didn't have to transport. He said that would save \$1,500. Their cost includes them bringing the excavator. The other companies included it also. Chairman Hansen said that the city has a backhoe and asked how deep the test holes had to be. Matt stated that he thought they were 10-15 feet. Chairman Hansen stated that the board could hire a local construction company with a track hoe to dig the holes.

Board Member Pebley asked if GeoStrata will do double the amount of quality work for what we are trying to accomplish. Matt stated for what they have proposed it would be quality but they also have proposed to do a lot more. He said we may not need too. He said it depends on what the debris flow study comes back at. Board Member Pebley stated with these bids it's not a matter of who is better it is a matter of what needs to happen. Matt agreed. He said there is some disagreement with some of the Geologists on how much is needed. Matt stated that GeoStrata wants to come out and follow all the UGS guidelines. He said the Geologist at AGEK feels like some of the things in the guideline are not very useful. Matt stated when GeoStrata was looking at the maps Mathias Canyon does not have a big alluvial fan; Evans Canyon had a big alluvial fan. He said because Mathias Canyon does not have a big alluvial fan they might come back and say you won't have a debris flow, but you would want some kind of structure to handle the muddy stuff that could fill in basements. Matt stated that they could go the cheaper route on the investigation and then spend more on construction. Chairman Hansen said they can only engineer so much and there are events that cannot be designed for that is why they give them guidelines. He felt that between IGES and GeoStrata that is where we need to be. He liked the fact that both of the firms are saying they will do a time and expense not exceed. Board Member Pebley agreed. Matt stated that they would both do a fine job.

Matt said that Jones & Associates felt that GeoStrata is a little more qualified or at least they have more experience with their Geologist. Chairman Hansen said that they should hire one of the bottom three (HGES, GSH, or GeoStrata) to do Scope 1 and then find out what the impact is going to be and then they will be able to give a more itemized scope and put that out for bid. He felt that the \$22,500 for Scope 2, they are playing the worst case scenario. He said let's get the design done and then do Scope 2. Board Member Thurgood asked where IGES was located. Matt stated that they were out of Draper, GeoStrata is from Bluffdale. He said that the debris flow hazard assessment and the

debris flow report is what we are looking at for the \$11,000. Matt explained that the preliminary investigation they will be pulling up geological maps, looking at the site. He went on to explain that the debris flow report is where they will come out and dig up the alluvial fan and they would also do the test pits, channels and then putting together their report. Matt stated that GeoStrata wants to come out and dig up the alluvial fan and IGES does not and that would be the cost difference between the two. Board Member Pebley asked if it was necessary to dig up the alluvial fan. Matt stated that the Geologist with GeoStrata feels that it is necessary and the Geologist with AGECE doesn't feel that it is necessary. Matt stated if you look at the State guidelines they recommend doing it. Chairman Hansen stated that the \$11,000 is a little more money than they had planned but if they are going to go by state requirements it will give a truer picture of what is going to be needed to be built. He said we are talking about spending \$750,000 to build these structures and so we want to make sure it is done right. Board Member Thurgood asked what it meant by digging up the alluvial fan and what will that tell them. Matt stated they will go up to the canyon mouth where the alluvial fan starts and take some tests. He said when you do this test you find what kind of sediments have washed out the canyons in the past and you look at the layers. Chairman Hansen stated it gives a history of what happened and it gives them the severity of what happened. He said his feeling is that we go with Scope 1 with GeoStrata. Chairman Hansen said that we can help them with the excavation and that will shave some money off the bid. All board members agreed to award the bid to GeoStrata.

Matt Robertson with Jones & Associate stated that they received 4 bid proposals

5. Motion to Award the Contract for the Geotechnical Study

MOTION: Board Member Thurgood moved to award the bid to the GeoStrata Company that submitted a bid for \$11,000 and adjust it for the excavation. Board Member Hirschi seconded the motion. All in favor.

Matt asked how the board felt on the hydraulic study, where GeoStrata recommends a new study be done; they also said they could use the RB&G study. Chairman Hansen suggested that they use the RB&G study because the city paid a substantial amount of money for the study to be done. He said they went into a lot of detail. He stated there are two studies, one in 1986 and one in 1997. He felt that they should use the study. The board members all agreed.

6. Discussion regarding work to be done on the Cherry Ridge Basin.

Chairman Hansen stated that he met Dave Ormond down at the Cherry Ridge Basin a couple of weeks ago and went over what needed to be done. He said Dave got him some unit prices for the dump truck, the mower. Chairman Hansen told him that the board intended to spend \$5,000; because that is the amount they can spend without putting it out to bid. He said he met with the property owner down there which is Kent Butters. Greg said that Butters owns a construction company and offered to do it. Chairman Hansen said that he would do his part and we would participate. He said by getting this channel fixed, widened, and cleaned out, it is helping him. Greg showed a map where the channel is and where it is causing the flooding. He said if we open that channel up it elevates the flood. He explained that would lessen the impact. Greg stated that there is

another piece of property owned by Mike Mitchell and owns another stripe of land down there that we may impact. He said we are going to go in there and pull the trees out and mow over what we can and widen the channel about 15 feet and take that material and pull it up and over the vegetation that we cut up. He explained that we will end up putting over that dirt road that goes down there so it will be raised up. He said Kent did not have a problem with that on his part of the property. He stated that he needed to make sure that the other property owners were ok with it. Greg stated that there are a couple of private property owners that bought property behind their homes which include the channel.

He said they are not ready to start construction until the property owners are contacted. Board Member Thurgood asked if we could put something in writing to the property owners about dumping down there and the potential flood issues that they are going to be responsible for. Chairman Hansen stated that at the last board meeting the board gave him permission to hire a contractor to clean it out. He said if he gets permission from the property owners they can start. He explained that Butters will kick in some of their money if he can rid of some of the trees and debris it opens up for development for him. Chairman Hansen said that the board will probably save half of what they originally planned.

7. Discussion Regarding the loan that was submitted to the Utah Boar Of Water Resources

Chairman Hansen stated that he talked to each board member on the phone and got their ok for him to sign the papers and get them sent off. He said with the help of Jones & Associates the application is filled out and sent to the Division of Water Resources. He said it is already going through the system. He stated that on June 18th the Water Resources have a board meeting and he will attend, Charles Holmgren Board Member for the Bear River District and also Jones & Associates. Chairman Hansen said that Jones & Associate took Charles up to the site so he would have a feel for it. He said when the review meeting gets closer and they give him a date he will let the board know. Board Member Thurgood asked if Jones & Associates could go up and take a few pictures and present them at the board meeting so that the board members know where the money is going. Greg stated that Russell Hadley with Division of Water Resources wants to go on site to look at it. Matt stated that he went over the presentation with Charles and he did not visit the site. Matt said that Mr. Holmgren reviewed everything and looked at all the pictures and signed the application. Matt asked if the board wanted them to proceed with getting the application for the CIB funding put together in case we don't get funded with the Water Resources. He said the application for the CID is due June 1st. Matt stated that it would need to be turned in 2 weeks before that to BRAG they are the ones that help them through that process. He said he went to a training last week that BRAG put on for the CIB funding so that he could be more familiar with it. Matt reported that the CIB board likes to see that the districts are going after multiple sources of funding and that they are not putting all their eggs in the CIB basket. He said that it needs to be turned in by June 1st for their October funding meeting. Chairman Hansen asked if there was much work in getting the application together. Board Member Pebley asked if it was necessary. Chairman Hansen said that the Water Resource Board Meeting is June 18th. Board

Member Thurgood asked if he Mr. Hadley gave any indication that we would not get the loan. Chairman Hansen stated that he felt good about it. Board Member Pebley asked if we have enough time to make a decision at the next meeting if we have too. Matt said he could quickly look through the packet and give Greg a call and see how much it would take. Board Member Thurgood would like to have that as a backup.

8. Motion to ratify the approval of the loan submittal to the Utah Board of Water Resources

MOTION: Board Member Pebley moved to ratify the loan approval as explained and move ahead. Board Member Thurgood seconded the motion. All in favor.

9. Council Member Comments

Council member not in attendance.

Board Member Thurgood is leaving on a mission on June 8, 2015. Greg stated that he has told Mayor Cronin that the board will need a member.

10. Payment Approvals (if any, Roll call vote)

Chairman Hansen said that there is one invoice for Jones & Associate for \$3,128.50 for Perry City Detention basin & piping maintenance plan, Evans & Mathias Canyons Debris Basins Review & Improvement Recommendations, Evans 7 Mathias Canyons Debris Basin Funding Research, Evans & Mathias Canyons Debris Basin Geotechnical Study Procurement and Perry Canyon Emergency Action Plan. The second invoice for Susan O Bray \$100.00 for clerical work.

MOTION: Board Member Thurgood moved to approve the invoices for payment. Board Member Hirschi seconded the motion. Roll call vote.

Board Member Pebley	yes	Board Member Thurgood	yes
Board Member Hirschi	yes	Chairman Hansen	yes

Motion Approved: 4 yes 0 no

11. Items for Next Agenda

- (1) Update on Geostratas progress
- (2) Update on Cherry Ridge Basin

12. Adjournment

Board Member Hirschi moved to adjourn. Board Member Thurgood seconded the motion. All in favor.