

**CITY COMMISSION MEETING MINUTES
CITY OF TRUTH OR CONSEQUENCES, NEW MEXICO
CITY COMMISSION CHAMBERS, 405 W. 3RD St.
WEDNESDAY, APRIL 12, 2023**

A. CALL TO ORDER:

The meeting was called to order by Mayor Amanda Forrister at 9:00 a.m., who presided and Angela A. Torres, City Clerk-Treasurer, acted as Secretary of the meeting.

B. INTRODUCTION:

1. ROLL CALL:

Upon calling the roll, the following Commissioners were reported present.

Hon. Amanda Forrister, Mayor
Hon. Rolf Hechler, Mayor Pro-Tem
Hon. Destiny Mitchell, Commissioner
Hon. Merry Jo Fahl, Commissioner
Hon. Shelly Harrelson, Commissioner

Also Present: Bruce Swingle, City Manager
Angie Gonzales, Assistant City Manager
Traci Alvarez, Assistant City Manager
Jay Rubin, City Attorney
Angela A. Torres, City Clerk-Treasurer

There being a quorum present, the Commission proceeded with the business at hand.

2. SILENT MEDITATION:

Mayor Forrister called for fifteen seconds of silent meditation.

3. PLEDGE OF ALLEGIANCE:

Mayor Forrister called for Commissioner Hechler to lead the Pledge of Allegiance.

4. APPROVAL OF AGENDA:

Mayor Pro-Tem Hechler moved to approve the agenda as submitted. Commissioner Mitchell seconded the motion. Roll call was taken by the Clerk-Treasurer. Motion carried unanimously.

C. PRESENTATIONS:

1. Presentation of City of Truth or Consequences Employee Service Anniversary Awards:

City Manager Swingle presented an Employee Service Anniversary Award on behalf of Frank Aguirre for 2 years of service with the City of Truth or Consequences.

City Manager Swingle presented an Employee Service Anniversary Award on behalf of Jesus Navarro for 16 years of service with the City of Truth or Consequences.

D. PUBLIC COMMENT (3 Minute Rule Applies):

Cary "Jagger" Gustin addressed the Commission with comments related to:

- He invited the Commission to the world-famous Santa Fe Opera who will be at the Civic Center.

Ken Merrick addressed the Commission with comments related to:

- He spoke on the removal of trees during the current water project, and informed the Commission that he believes that they did not consider the value of the mature trees, and if a tree specialist been consulted on site when the problem was encountered measures could have been made to save the trees. He has the permit from the State Department of Transportation (NMDOT) from the year 2000 obtained by members of the MainStreet T or C organization to plant Chinese Pistache trees on both Main and Broadway, as a plan to beautify our downtown. The permit clearly states that the NMDOT will have the sole right to determine if the landscaping must be altered, modified, or removed. Upon recent calls to NMDOT, he learned that they had no knowledge, nor had they given any permission for the tree removal. He feels that the tree is incorrectly blamed for structural damage, and intrusion into the deteriorating water pipe system. He asked the council how they plan to reimburse MainStreet T or C and our citizens for this error.

Frances Clark addressed the Commission with comments related to:

- The disc golf baskets at the Municipal Golf Course.

Chris Devlin addressed the Commission with comments related to:

- The Turtleback Trails Network Plan. On March 24th Chuck did an article on the trail concept where Atila Ballity outlined the plan in the paper. One sentence in the article that really stood out was the section of the plan where you voted for the potential development of hiking trails, foot bridges, and/or vehicle bridge access. There is a big difference between a hiking and running trail, and an

adventure trail. There is also a big difference between a foot bridge and a vehicle bridge. The council should reject the proposed master plan as submitted, because it still has reference to those things. I urge the Commissioner's to reject and table the motion by Commissioner Fahl to adopt or approve the Turtleback Trails Network Plan that's submitted.

Steven Green addressed the Commission with comments related to:

- Him serving the community from 2008-2019 as a Commissioner, Mayor Pro-Tem, and Mayor. He voted to bring the MainStreet program into the community in 2009, and he believes the community (*in the downtown area*) has appeared to be more beautiful and attracting, ever since, and more tourists have since been implementing the MainStreet Program.

Kathleen Sloan addressed the Commission with comments related to the Bridge Loan.

Nate Stephens addressed the Commission with comments related to:

- The River Walk. He fears if there is an access created across the river, the current area that we have right now will be forgotten about.

Sid Bryan addressed the Commission with comments related to:

- Steve Green's comments to the Commission, and the fact that he thinks the MainStreet Program has helped the downtown area tremendously.

Gordon Adelhite addressed the Commission with comments related to:

- Sid Bryan and Steve Green's comments about the MainStreet Program.
- He also believes that two lanes are too much on Main Street, and the fact that there have already been accidents on Main Street means that it need to be the main focus.

Joanne Long addressed the Commission with comments related to:

- The comments that Gordon Adelhite had previously made about MainStreet, and the fact that she has had two of her vehicles wrecked on Main. Something needs to be done to address that.

E. REPORTS:

City Manager Swingle reported the following:

- First thing he addressed to the Commission was to introduce the new City Manager Angie Gonzales.
- He also thanked the entirety of the city staff for working so well.
- April 4th was a day of extreme winds, and we had lost a single-phase primary tap near Foch hill.
- He congratulated "Professor" OJ Hechler on passing his Certified Pool Operator exam in the State of NM. He graduated with 100%.

- He also congratulated Water/Wastewater Director Arnie Castaneda. He has been a member of the Rural Water Association for a number of years and this past week he was voted onto the Board of Directors to represent the southern part of the state. He was also voted and appointed to the Executive Board for New Mexico Rural Water.
- There are a number of Board vacancies. We have two vacancies on the Impact Fee Board. One on the Library Board. One on the Recreation Board and two on the Planning & Zoning Board.
- The city received a grant award for \$181,910 for engineering for sidewalks on Marie Street, Pershing, and from Main Street to New School Road. Also New School Road to Date and Smith Street to Silver Street.
- The city is averaging about 12-13 water leaks per day.

City Attorney Rubin reported the following:

- He mentioned that he has a hearing scheduled on April 19th involving the property located at 630 Charles. This is one of the properties where the city recorded a lien on the property due to delinquent utility bills and the fact the city conducted a cleanup of the property which obviously involved expense to the city.
- He also congratulated City Manager Gonzales on her new position.

City Commission Reports:

Commissioner Mitchell reported the following:

- They are moving forward with Fiesta. They are looking for people to help volunteer. They need people for the parade, vendors, general set up and tear down volunteers. If interested, it is at 4 o'clock today. They have been reaching out for sponsors and have been getting good feedback from the community.
- She gave a shout out for the grad bash fundraiser that is on that Monday night at Sidekixx. It is a bowling tournament where you can put together a team, and each team is \$75. All the money and proceeds go towards grad bash and graduation, and it will also be the first time people will have the opportunity to bowl in the bowling alley in quite a while.

Commissioner Fahl reported the following:

- She attended the Sierra County Recreation and Tourism Board meeting that last week and the changes that they made with the Airbnb's and realized the significant dollar improvement for them. They had told her that in the last two months they received about \$10,500 for just two months' worth of Lodger's Tax, and it is usually around \$2,000, so they are getting a pretty good boost.

Commissioner Harrelson reported the following:

- She attended the School Board meeting on Monday night, and she wanted to discuss some of the things that were mentioned, and needed to be addressed. On May 10th they are having a mental health night at the High School, and that is for all of the community. They will have different resources there and supports for

mental health. Sierra Vista Hospital has a collaboration with a group that is a part of the medical club that really supports the High School.

- The donkey basketball should be taking place on April 15th. The Superintendent and the High School Principal were both scheduled to be on a donkey.
- They have a spring concert coming up with the band, and that is on May 20th.
- Lastly the Envirothon kids are going to the State Competition in Glorietta. They take 6 kids from the State competition, and they move on to Nationals. We as New Mexico have represented our Envirothon kids, and they have done a great job. They placed 4th last year, and they are nationally recognized.
- Caden Chatfield placed 2nd at the State Championship for power lifting. That is a new sports event that we have at the High School.

Mayor Pro-Tem Hechler reported the following:

- They have been very busy over the last few weeks. It seems like people with Fiesta wait until the last two weeks. However, he was able to host a meeting with Jason Lazich with Virgin Galactic. He came to the community, and I introduced him to some business people, including the T or C Guided Tours, and El Faro, and they're going to do some work with him. Virgin Galactic is also going to sponsor them this year as well.

Mayor Forrister reported the following:

- She followed the comments on the Donkey Basketball and said it will be taking place the on the 16th not the 15th. She and Mayor Pro-Tem will be competing on a team.
- The 14th is AG day, and it will be held at the Fairgrounds in Williamsburg.
- She also welcomed the new City Manager Angie Gonzales.

F. CONSENT CALENDAR:

1. **City Commission Regular Minutes, March 22, 2023**
2. **Acknowledge Regular Airport Advisory Board Minutes, January 3, 2023**
3. **Take Home Vehicle Forms**
4. **March 2023 Accounts Payable**
5. **Subrecipient FY 22/23 2nd Quarter Reports**

Commissioner Fahl asked to remove item F1 from the Consent Calendar for discussion.

Mayor Pro-Tem Hechler moved to approve the Consent Calendar with the removal of F1 from the Consent Calendar for discussion. Commission Harrelson seconded the motion. Roll call was taken by the Clerk-Treasurer. Motion carried unanimously.

Commissioner Fahl: Under H1 of the minutes when we were discussing the Turtleback Trail Plan, the minutes state that I recused myself, and actually I did not do that. Clerk Torres did, and I did not think that I needed to be recused so I wanted to clarify that for the minutes. That was not a Jornada RC&D project, and I did not receive any financial

benefit through that entire process so I do not need to be recused from that topic. I confirmed that with Attorney Rubin yesterday.

City Attorney Rubin: We will talk about the actual recusal when we get to that point on the agenda, but right now we are talking about the minutes. The minutes say that you recused yourself, and you are saying that did not actually happen.

Commissioner Fahl: On that topic, Clerk Torres said that Commissioner Fahl is recusing herself, and I was surprised by that, and I did not speak up because I did not know I was supposed to, so I do know how you want to change that.

City Clerk Torres: We can put that you didn't vote on it because you didn't, I guess recuse yourself, but you also did not vote.

City Attorney Rubin: Ok do that, and we will talk about recusal when we get to that on the agenda.

Commissioner Fahl moved to approve the Consent Calendar the amendment discussed. Mayor Pro-tem Hechler seconded the motion. Roll call was taken by the Clerk-Treasurer. Motion carried unanimously.

G. PUBLIC HEARINGS:

1. Public Hearing/Discussion/Action: Final Adoption of Ordinance No. 748 an ordinance authorizing the lease of real property, pursuant to section 3-54-1 NMSA 1978 to American Tower:

City Manager Swingle: This is the 2nd of 5 Ordinances for various towers that we are going to be bringing into extended policies with. This is American Tower on Kopra Street. They are going to pay us \$480,000 for a re-extended lease. Once we send them the ordinance, we will work on the lease agreement with company and all of the due diligence that they have done as far as the title searches and things like that they are doing. We will execute that in the near future, this is just the ordinance itself. We had a survey done and an appraisal done on a property, and the appraisal came in like all of the other appraisals, and it's valuing the lease at \$15,000 a year and we're just not getting close to that in any one of the leases that we currently have.

City Attorney Rubin: As we look at the ordinance itself and paragraph B describes the property as being on the water tank site, and this time I am pleased to see that we also have the survey itself attached to the ordinance, so you actually have a legal description there. Paragraph D is the important one, and it recites that we are following provisions of the State Statue 3-54-1, which requires us to obtain an appraisal. As the ordinance indicates, the appraisal came in at \$15,000 per year. The contemplated rental is a onetime, upfront payment of \$480,000 to pay at the inception of the lease. Paragraph H explains the reason why we feel it is in the best interest of the city to accept the proposal. I have listed 4 categories here. On number one, the proposed payment of

\$480,000 would be upfront at the inception of the lease, two proceeding with the proposed transaction represents the best use of the property it would be otherwise difficult to develop the property and three, in the absence of entering into the long-term lease agreement, it is very speculative that the property could be used as cell tower site in the distant future. Number four, operating and maintaining the property in its current use has been a labor intensive endeavor for the city. Entering into the proposed transaction would relieve the city of the significant time consuming burden. As Mr. Swingle pointed out, we still need to attach the lease agreement, but I believe you can still approve the ordinance subject to the fact that the proper lease agreement will be attached.

City Manager Swingle: There is one correction on this. This is not the water tank site on Pershing Street. This is the Kopra Street tower.

City Attorney Rubin: Okay, we should probably revise paragraph B where it says water tank site.

City Manager Swingle: And the proper township section also. That may be accurate, but we would have to check.

City Attorney Rubin: I don't think we even need the part below of paragraph B where I say that the .2 30 acre tract etc., because we have the legal description attached now. We can just say, *see exhibit one attached*. Even though we're making this change here at the publication process, I don't think this materially changes the ordinance itself. The rest of the terms are accurate, and I think we've all known where the location of this cell tower is anyway so I think we can still proceed.

Mayor Forrister opened the public hearing.

Proponents:

There were no proponents.

Opponents:

There were no opponents.

Mayor Forrister closed the public hearing.

Mayor Pro-Tem Hechler: I just wanted to say for the record, I visit this site several times a day. I see it every morning when I walk by, and it is a great use, and it is great to have the money for that property because that property can't be used for anything else.

Mayor Pro-Tem Hechler made a motion to approve Final Adoption of Ordinance No. 748 an ordinance authorizing the lease of real property, pursuant to Section 3-54-1 NMSA 1978 to the Kopra Street tower to go by the legal description

attached to the document. Commission Harrelson seconded the motion. Roll call was taken by the Clerk-Treasurer. Motion carried unanimously.

2. Public Hearing/Discussion/Action: Final Adoption of the City's General Obligation Bonds, Series 2023 Ordinance No. 745:

Mark Valenzuela, Bosque Advisors, LLC: I recall the timing. It was around the same as your budget hearing, and we were talking about opportunities to move forward, and this is the first piece of that work. Having received fantastic support from this community on the general obligation bond, we have pursued a financing with the New Mexico Finance Authority for the first portion of the \$3 million, which is \$790,000. The blended interest rate on it is 2.03% (*a fantastic rate*) from the Finance Authority, and it will be paid back over 15 years. As your recall from other presentations I've made, what we're trying to do is set up the mill levee for property tax residents, so that it doesn't fluctuate from year to year. Out of the gate, it will be set at or around \$2 ½ to \$3 million, which would be an impact to property owners. For example, for a \$150,000 home, it would be around \$125 incremental new every year. With that, I am recommending that you move forward with the transaction.

Chris Muirhead, Modrall Sperling: So this ordinance is the same one we looked at last month for the first reading. In the introduction, as Mark said, the amount is \$790,000. It should be in that first recital a \$270,000 and \$520,000 break down between those, but it has been published at \$790,000 so we are good there. As a reminder this is a pledge of the ad valorem property taxes as Mark said, so this is the most secure of your pledges. As we talk in the next resolution, we will go over the utility pledge and the differences there. This gives you the true interest cost of 2.03% with \$79,000, and the disadvantage rate of 0% from the Finance Authority. The ordinance authorized the issue, and we would close in the middle of May with the Finance Authority who purchases the bonds, and provides the money at that time. The majority of the ordinance, as we discussed last month, is how it works in the form of the ordinance. The pledge is a general obligation of the city with the ad valorem property taxes backing it. If for whatever reason those are short, you can use any other revenues of the city that are legally available to use to pay the debt service. Again it is \$270,000 for street improvements, and \$520,000 for water/wastewater improvements.

City Manager Swingle: I just wanted to thank these gentleman for the work that they are doing. They are doing a great job getting this through NMFA, and going through the bond process and keeping us informed.

Commissioner Harrelson: I want to also reiterate that we sometimes get phone calls from constituents that say "*why aren't you consulting outside, and why are we making decisions*" and I want the community to know that this is one of those times where we consult somebody else. This isn't a decision we're making ourselves. We're getting support from the outside agencies that really support this decision that we're making when it comes to things that go on in our city.

Mayor Forrister opened the public hearing.

Opponents:

Kathleen Sloan: I am going by the only thing I can go by which is what is in the packet, and as I recall, there is nothing about New Mexico Finance Authority is going to buy this whole bond issue? Is that what I heard? I'm not sure? So, these are my questions. It says in the packet, an interest rate of up to 10% will be paid to investors. According to my research, 23 Municipal bonds have an average interest rate of 3.5%, so if the people pay back this debt at 10%, I mean that's 3 times the norm, and is there a prospectus or official statement on the bonds? Did the city get a bond rating, and is it so bad that we're possibly offering up to 10% to investors? If so, can you amend the ordinance to state that the bonds will not offer a rate above 4% because currently it says up to 10%? I am requesting that they be changed to 4% on the documents. It also mentions the G.O. bond proceeds may be used to pay off the water projects downtown. I thought that the G.O. bonds could not be used for past debt? So those are my questions.

Chris Muirhead, Modrall Sperling: Just to avoid confusion I'll answer those questions. So on the interest rate, which is a very important question, it is locked in at the true interest cost of 2.03%. The 10% is set by statute, and you can't go higher than that, so the ordinance references that. The ordinance also references, on page 2, it lists each maturity at each interest rate with the true interest cost that is marked at 2.03%. If you look at reference D, the average municipal debt right now, so many factors go into that which is about 3 ½%. The public market is much more expensive right now than what you're getting here at 2.03%. There is not a prospectus or an official statement because it is privately placed with New Mexico Finance Authority which is created by the New Mexico State Legislature (30 years ago) to be a lender to municipalities, and you don't need to have that document. The improvements are as the voters approved for these capital improvements.

Mark Valenzuela, Bosque Advisors, LLC: I would like to address the private placement with the Finance Authority. When we originally set the authorizing resolution up, you had the opportunity to go to a local commercial bank, to the Finance Authority, or take it out to public market. In order to take it out to public market, we would need a bond rating, and a bond rating by itself, or a transaction this size would cost about \$15,000. From the prospective of seeing what the Finance Authority was offering, relative to that cost, my recommendation was to go to the Finance Authority, rather than not spending that \$15,000 on the bond rating, so that is the reason. Smaller communities can do that, and I certainly encourage it, but in this case, because it was such a smaller transaction, the Finance Authority provided the best opportunity.

Proponents:

Gordon Adelhite: I want to thank Bruce. We had an 81% vote yes on this. It was a beginning. We have a \$20 million obligation to our community for safe water. This is

what's going to bring, and make our community thrive in the future, so it's not enough, but it is a hell of a good start, and I want to thank you all for supporting this.

Mayor Forrister closed the public hearing.

Commissioner Fahl: This is a great opportunity for us to move forward, so we thank all of you for the hard work you put in to help us achieve this goal. I think we are all really excited to start capitalizing on that effort.

Mayor Forrister: Yes, and I think I've said this every single time that you guys have been here, but when we approve bonds at the state level, we don't necessarily see that impact to our community. It's these bonds that we are approving here locally, in this community that we were going to be able to see and witness exactly what our money is being spent on, so this is definitely a good investment for our tax payers going forward.

Commissioner Mitchell made a motion to approve Final Adoption of the City's General Obligation Bonds, Series 2023 Ordinance No. 745. Commission Fahl seconded the motion. Roll call was taken by the Clerk-Treasurer. Motion carried unanimously.

H. ORDINANCES/RESOLUTIONS/ZONING:

- 1. Discussion/Action: Resolution 36 22/23 Authorizing and providing for the incurrence of indebtedness for the purpose of providing a portion of the cost of acquiring, constructing, enlarging, improving, and/or extending its water system:**

Chris Muirhead, Modrall Sperling: This is the water system improvements related to the USDA financing which was the USDA committed to this in September of 2019 for a total of \$9,417,000, the great news here is that \$3,930,000 is a grant so that that is not repaid by the city \$5,487,000 in a loan the other good news about this because it's a federal program subsidized they can offer a much more reduced interest rate again here the worst case scenario is 2.125% so that would be the interest rate unless at the time of closing it is lower given the current markets I would think it probably will not be but still this is over 40 years a flat rate of 2.125% which is very attractive. It can be repaid at any point should the city decide it wants to do that. This loan will repay that Bank of the Southwest interim loan. Historically, USDA did not require to do these interim steps and bridge loans, but that changed in the last 5 years, so we had to go through Bank of the Southwest to finance the construction and the improvements, and then the USDA will close on the \$5,487,000 and repay that debt. So that will be gone, and the \$3,930,000 will be available for the remainder of the project as well. This resolution in front of you today is a standard requirement under this letter of conditions which is this large document. There is a bond ordinance that we will come back and present to you that is the controlling document. Again, in that situation, the pledge is important to understand. It is different. It is not a general obligation of the city. It is limited to the joint utilities system, and the net revenues of that, so after you pay operation and maintenance,

what's left of your gross and net revenues is the only lien the USDA or the Federal Government will have for repayment. If they feel like it is not where it proves to be in sufficient to debt service, they can require you to raise system rates to meet that obligation. I know the city has been working on doing all of that already, so this is a standard form that needs to be adopted, but the real meat and potatoes will be the ordinance when we come back with probably an introduction next month, and an adoption at the following meeting.

Commissioner Hechler moved to approve Resolution 36 22/23 Authorizing and providing for the incurrence of indebtedness for the purpose of providing a portion of the cost of acquiring, constructing, enlarging, improving, and/or extending its water system. Commissioner Mitchell seconded the motion. Roll call was taken by the Clerk-Treasurer. Motion carried unanimously.

2. Discussion/Action: Resolution No. 37 22/23 Budget Adjustment Request:

Kristie Wilson, Finance Director reviewed the Budget Adjustment Request that was provided in the packet.

Commissioner Fahl mad a motion to approve Resolution No.37 22/23 Budget Adjustment request as presented by Kristie Wilson. Commissioner Mitchell Seconded the motion. Roll call was taken by the Clerk-Treasurer. Motion carried unanimously.

3. Discussion/Action: Approve Resolution No. 38 22/23 Confirming the City of Truth or Consequences to participate in the New Mexico Department of Transportation Project fund call for projects:

Assistant City Manager Alvarez: This is a required step in order to apply for NMDOT funding. This project would be a request of \$2.7 million. It would require a 5% percent match in the amount of \$138,000. This would be for complete asphalt replacement, curb, gutter, sidewalk, drainage, signing, striping, ADA pedestrian access ramps on Silver Street from 3rd Street to 9th Street.

Commissioner Fahl: It would be good to have those things in place on that Street. It's a really busy street, and quite hazardous.

Mayor Pro-Tem Hechler: I also wanted to say that we are also requesting to wave the match in the amount of \$138,000, so hopefully with a little bit of luck, and some good foresight for our Legislature, this project won't cost us anything.

Commissioner Mitchell made a motion approve resolution No. 38 22/23 Confirming the City of Truth or Consequences to participate in the New Mexico

Department of Transportation Project Fund and call for projects. Commissioner Fahl seconded the motion. Roll call was taken by the Clerk-Treasurer. Motion carried unanimously.

4. Discussion/Action: Resolution No. 39 22/23 Requesting the New Mexico Transportation Commission to Designate Certain Specific Portions of the State Highway System as Designated Recreational Off-Highway Vehicle (ROV) Routes:

City Manager Swingle: A little over a year ago, all the governmental entities such as the City, Elephant Butte, Williamsburg, the County, all got together and had a conversation about off road vehicles, and getting those vehicles access to our roads. We brought in this district NMDOT engineer to that meeting, and we asked him basically what we needed to do to get access to travel on NMDOT roads. There were some caveats that they clarified. The highway commission said that all the roads have to be 45mph or lower. Anything above that would not be considered by the highway commission. We all put our plan together of what streets that entailed for our jurisdictions, to give these recreational off road vehicles access to go all around the County. Particularly to all of the sites and activity locations. That for us includes the I-25 business loop from on ramp to ramp. Williamsburg to the North end of town. It includes 3rd Street, or also known as New Mexico 151, from Date Street to the city limits, and New Mexico 181 from the business loop, to the North city limits which is very close to about where the bridge is near Bartoo's place. Those would be the 3 roads that we have within the city that are State owned and maintained roads to go with this regional plan. The other entities are also pursuing the roads that they have available to them, and they are making their decisions to put their resolution together and submit this to the DOT. Once this is done it will go to the highway commission, and then they'll render the decision. Based on the criteria that the commission has established for us per conversation, this meets all of the criteria for approval.

City Attorney Rubin: I think the safety issue is also addressed here. On the very last whereas, you'll see it references 3 different state statutes, and I happened to take a look at 66-3-101, and that statute talks about, if we are to consider this type of resolution, the vehicles still have to comply with the strict requirements of the Off Highway Vehicle Act. For example, all of the vehicles would have to have one or more headlights, one or more taillights, brakes, mirrors, and mufflers, so that is why we included state statutes within that resolution.

City Manager Swingle: People have got to comply with the state traffic laws.

Commissioner Mitchell: Is it going to end up changing speed limits on any of the areas that it is effecting?

City Manager Swingle: All of the speed limits are 45 and under. They would not allow for that. If you ask the state to change the speed limit to something lower than what it is, and then submit an application, they would reject that. It is pre-existing when this law was passed. They're not going to let somebody change the speed limit. Speed limits are based on traffic studies, and a lot of analysis, and they're not going to change that for the convenience of allowing off road vehicles.

Mayor Pro-Tem Hechler: I was on the Commission when we initially passed the OHV Act in 2018, and it was a hard fought battle because many in the community thought that this might be problematic for our community. I think we had to go to referendum and there was a vote, and we narrowly won the vote to allow the ATVs. We've not had 5 years of having ATVs on our backstreets, and our highways, and I think the impact has been negligible. There's been a couple of minor incidents, and things of that nature, but nothing that is going to preclude this from occurring in the future. I think this is a wonderful opportunity to link our communities between Elephant Butte and Truth or Consequences and the County. I think this is good for all, and I'm hoping the same result is going to happen, that we'll have increased tourism, and the ability to get around with very few incidents.

Commissioner Harrelson: One of the communities that I've been through do a lot of this type of thing, and it brings in tons of tourism and lots of money comes to the community because of this linking the whole community together. There are trails, and biking, and hiking, and off road vehicles in that community, and I think it's a really good representation of what T or C can look like.

Commissioner Mitchell: I have a question regarding parades, because in the past when we did the parade of lights last Christmas, all these ATVs wanted to come, but they weren't able to drive their ATV to the parade, so is this going to alleviate that to where now they can? They don't have to put it on a trailer and take it down. If so, I'm all in favor.

Mayor Pro-Tem Hechler: The biggest benefit to anyone that is interested in taking their ATVs out of town, is before you had to trailer your vehicle out of town to get to certain places, and now for instance, this new business that is coming to the community will be able to leave from their business and actually drive the ATV to some of these trails. It will be a huge benefit to folks to like that, or to private citizens that don't want to trailer their ATVs out of town to get to where they want to go.

City Manager Swingle: I do want to make sure that one thing is understood, the passing of this resolution does not authorize people to travel on these roads right now. It still has to go to the highway commission, and they have to render the decision for all three roads.

Mayor Pro-Tem Hechler: What we're hoping is that there is an effort between all three communities, the County, City of Elephant Butte, and Truth or Consequences to get

their resolutions passed, then as a package, send it to the highway department to get final approval, and then that will be the final step to make this thing successful.

Commissioner Mitchell made a motion to approve Resolution No. 39 22/23 requesting the New Mexico Transportation Commission to designate certain specific portions of the state highway system as designated recreational off road vehicles. Commissioner Harrelson seconded. Roll call was taken by the Clerk-Treasurer. Motion carried unanimously.

5. Discussion/Action: Amendment to Ralph Edwards Civic Center Resolution No. 10 21/22 to remove non-profit exemptions:

City Clerk Torres: This item is to remove the portion of the resolution that gives non-profits a 50% reduction in rental fees due to the state's anti-donation clause that prohibits us from giving anything away for free, which includes the rental of our facilities.

Commissioner Fahl: I understand the purpose, but it is going to be difficult for those who have historically used it at little or no cost, and I think we need to get that message out as to why we're making that decision and let them start planning ahead.

City Clerk Torres: We already removed it from our City Parks Rental Agreement last year. We just haven't had a chance to do it on this one.

Commissioner Mitchell: If we approve it, when will it go into effect?

City Clerk Torres: Today. This change does not pertain to rentals that have already been submitted to my office.

City Manager Swingle: All current agreements that are in place will be honored at the cost that was offered at that time. Anything new will be at the new rate. This is not an attack on non-profits. This is required as an anti-donation issue by state statute. The state, and the Attorney General's Office has been very aggressive over the last couple of years of going after governmental entities that are providing reduced rates, or free services to non-profits and those things that do not have a public interest or public benefit.

Commissioner Fahl: So if a non-profit has something that will benefit the community as a whole, and they can prove that to you, will they be able to have a reduction in fees?

City Manager Swingle: If there is a public interest in it, and it is determined that it has a real public interest or benefit. For example, FFA and things of that nature has a huge community interest under most circumstances, and we can allow them to use our facility for free.

Commissioner Fahl: So they would just have to prove their case?

City Manager Swingle: Yes.

Commissioner Fahl made a motion to approve the amendment to Ralph Edwards Civic Center Resolution No. 10 21/22 to remove non-profit exemptions. Mayor Pro-Tem Hechler and Commissioner Harrelson seconded. Roll call was taken by the Clerk-Treasurer. Motion carried unanimously.

6. Discussion/Action: Publication of Ordinance No. 749 Implementing the City's Affordable Housing Plan:

City Manager Swingle: This is an interesting dilemma with public housing. We've had a number of conversations internally, as well as contacted HUD for some clarification. HUD reached out to us and said, hey, you guys don't have an ordinance in place. When I first saw this, I thought that they wanted the city to start getting into the section 8 housing type stuff, but that is not the case. This ordinance allows entrepreneurs and investors to have access to use HUD funds so individuals can build HUD housing. They require this ordinance, and they are reaching out to all of the communities that they identify that don't have one in place. The approval of this ordinance will allow that private investment into HUD housing in this community, and that can be nothing but good for this community.

Mayor Pro-tem Hechler made a motion to approve the publication of Ordinance No. 749 Implementing the City's Affordable Housing Plan. Commissioner Harrelson seconded. Roll call was taken by the Clerk-Treasurer. Motion carried unanimously.

I. NEW BUSINESS:

1. Discussion/Action: Approve the Cantrell Dam Hydrology and Hydraulics Report:

Glen Selover & Stephen Ingles-Garcia Wilson & Company, Inc. reviewed the Cantrell Dam Hydrology and Hydraulics Report. (Complete copy attached hereto and made a part hereof).

Commissioner Fahl made a motion to approve the Cantrell Dam Hydrology and Hydraulics Report. Commissioner Mitchell seconded. Roll call was taken by the Clerk-Treasurer. Motion carried unanimously.

2. Discussion/Action: Request for a Summary Plat Amendment at 1227 E. Riverside Drive:

Assistant City Manager Alvarez: A public hearing was held through Planning & Zoning on March 13th. We had no opponents or proponents. The applicant is wishing to divide their parcel into two lots. Both lots meet the standards for that district. The Planning & Zoning Board unanimously approved the recommendation to the Commission. We only had 3 voting members present at that meeting. If it is approved by the Commission, the applicant will proceed with the separation of utilities as needed as per our code.

Mayor Pro-Tem Hechler made a motion to approve the Summary Plat Amendment at 1227 E. Riverside Drive. Commissioner Harrelson seconded. Roll call was taken by the Clerk-Treasurer. Motion carried unanimously.

3. Discussion/Action: Request for a Special Use Permit at 804 N. Elm for the purpose of a Multi Animal Permit:

Assistant City Manager Alvarez: A public hearing was held through Planning & Zoning on March 13th. The applicant has 5 dogs. Animal Control and Code Enforcement have completed the required site visit, and they recommend approval. We had no opponents or proponents. Our original vote from the board was 2 in favor and 1 in opposition, we only had 3 voting members present. The one member had some questions that were addressed and are in the minutes of the meeting, then that member opted to change their vote in favor. Applicants are present.

Mayor Forrister: I wanted to make note for those who do not know, the ordinance allows the applicant to have 4 dogs without a permit. That is not saying that we cannot allow people to have more than 4 dogs (*limit is listed in the city code*) they just have to come before us and Planning & Zoning for a special use permit. Traci thank you for pointing that out in the packet, as well as to the Planning & Zoning Board so that they understand that we are not just having a rule and then breaking it. It is allowed if you go through the proper procedures.

Commissioner Fahl made a motion to approve the request for a Special Use Permit at 804 N. Elm for the purpose of a Multi Animal Permit. Commissioner Mitchell seconded. Roll call was taken by the Clerk-Treasurer. Motion carried unanimously.

4. Discussion/Action: Request for a Special Use Permit at 1415 Platinum for the purpose of a Multi Animal Permit:

Assistant City Manager Alvarez: A public hearing was held through Planning & Zoning on February 13th. The applicant was however unable to attend the Commission

meeting following so that is why we are seeing it a little bit later. At the time of the permit, the applicant had 13 dogs, but one passed so she unfortunately only has 12 now. The applicant has been compliant for many years. However, now that the ordinance has changed, she now has to come before Planning & Zoning and the Commission for approval. The current ordinance only allows for 7 dogs, but in this case, since she has been compliant before the ordinance was amended, we would like to recommend approval. If not, we would be requiring her to get rid of dogs that were approved under our previous code of ordinances. The Planning & Zoning board unanimously recommended the approval of the special use permit, and the applicant is present in the audience.

Jessica Chavez, Applicant: My dogs have an outdoor air conditioner in the summertime and they have heat lamps and a wood burning stove to keep them warm in the winter.

Commissioner Mitchell made a motion to approve the request for a Special Use Permit at 1415 Platinum for the purpose of a Multi Animal Permit. Commissioner Fahl seconded. Roll call was taken by the Clerk-Treasurer. Motion carried unanimously.

5. Discussion/Action: Accept and Approve the Transportation Alternative Program (TAP) Grant Funds Award:

Assistant City Manager Alvarez: The city submitted an application to NMDOT for their grant fund project, and we received an award. Our original application was to request almost \$2.5 million in design and construction, but NMDOT reached out to us and requested that we amend our request to include design only at this time. That is for the sidewalks on Marie, Pershing, New School Road, Smith Street, and North Silver Street. We did amend our request to design only, so we can get the design done, and then it will be eligible to go back to them with a shovel ready project for construction. Total estimated project cost is \$2,776,086.69 and would require a 5% match in the amount of \$138,804.33, and staff will request a match waiver.

Commissioner Fahl made a motion to approve the Transportation Alternative Program (TAP) Grant Funds Award as presented. Commissioner Mitchell seconded. Roll call was taken by the Clerk-Treasurer. Motion carried unanimously.

6. Discussion/Action: Accept and Approve Aging and Long Term Services Department Grant Appropriation A19-D2074- 261:

Assistant City Manager Alvarez: At the last legislative year, the SJOA was awarded funding for a vehicle, but they are getting two vehicles out of it. They were short \$2,909, but Aging and Long Term reached out to me and said that they have some extra funds,

and they can make up that difference, so this is just to add to the funding that they were awarded.

Commissioner Mitchell made a motion to approve the Aging and Long Term Services Department Grant Appropriation A19-D2074- 261 as presented. Commissioner Fahl seconded. Roll call was taken by the Clerk-Treasurer. Motion carried unanimously.

7. Discussion/Action: Approval of the Airport Advisory Board's recommendation to appoint Bernard Romero to serve as a member on their board:

City Clerk Torres: The Airport Advisory Board has a vacancy on their board, and on April 4th the board made a recommendation to appoint our only applicant, Bernard Romero to fill the vacancy. If appointed, he will serve a two year term.

Commissioner Mitchell made a motion to appoint Bernard Romero to serve as a member on the Airport Advisory board. Mayor Pro-Tem Hechler seconded. Roll call was taken by the Clerk-Treasurer. Motion carried unanimously.

8. Discussion/Action: Review, Approve and/or Allocate Funds to the Public Arts Advisory Board (PAAB):

Cary (Jagger) Gustin, Public Arts Advisory Board explained that they are applying for funding for the purpose of the restoration of the city owned ceramic fountain located at the Geronimo Springs Museum. The amount they are requesting is \$15,000. (Presentation attached hereto and made a part hereof).

Mayor Forrister recused herself from the vote due to Cary (Jagger) Gustin being her uncle.

Commissioner Mitchell made a motion to approve and allocate \$15,000 to the Public Arts Advisory Board (PAAB). Commissioner Fahl seconded. Roll call was taken by the Clerk-Treasurer.

Hon. Destiny Mitchell, Commissioner voted aye.

Hon. Shelly Harrelson, Commissioner voted aye.

Hon. Amanda Forrister, Mayor recused herself from the vote.

Hon. Rolf Hechler, Mayor Pro-Tem voted aye.

Hon. Merry Jo Fahl, Commissioner voted aye.

Motion carried with a 4-0 vote and 1 recusal.

9. Discussion/Action: Review, Approve and/or Allocate Funds to Acknowledge, Create, Teach Corp. (A.C.T.):

Hon. Rolf Hechler, Mayor Pro-Tem recused himself from the vote because spoke during the presentation to get this funding and he feels that it would not be proper to vote on this item.

Tammy Gardner, Executive Assistant explained that they are applying for funding for the purpose of the Truth or Consequences Annual Fiesta. The applicant requested \$33,000 and the Lodgers Tax Advisory Board recommended to fund this in the amount of \$20,000.

Commissioner Fahl made a motion to approve and allocate \$20,000 to Acknowledge, Create, Teach Corp. (A.C.T.). Commissioner Mitchell seconded. Roll call was taken by the Clerk-Treasurer.

Hon. Destiny Mitchell, Commissioner voted aye

Hon. Shelly Harrelson, Commissioner voted aye

Hon. Amanda Forrister, Mayor voted aye.

Hon. Rolf Hechler, Mayor Pro-Tem recused himself from the vote.

Hon. Merry Jo Fahl, Commissioner voted aye.

Motion carried with a 4-0 vote and 1 recusal.

10. Discussion/Action: Review, Approve and/or Allocate Funds to the Elephant Butte Chamber of Commerce:

Tammy Gardner, Executive Assistant explained that they are applying for funding for the purpose of the 2023 marketing project. The applicant requested \$5,000 and the Lodgers Tax Advisory Board recommended to fully fund the project. They are asking different entities to help support this as well.

Commissioner Fahl made a motion to approve and allocate \$5,000 to the Elephant Butte Chamber of Commerce. Commissioner Harrelson seconded. Roll call was taken by the Clerk-Treasurer. Motion carried unanimously.

11. Discussion/Action: Approval of the FY 23/24 Subrecipient Grant Applications for Companion Animal Action Team (CAAT):

City Manager Swingle: This is a deviation from last year's practice of doing these during the budget. We are trying to get this accomplished so that Finance can incorporate the number that you approve into the preliminary budget.

Majie Powey, Companion Animal Action Team (CAAT) explained that they are requesting \$1,000 for the purpose of ensuring that all animals have their vaccinations. They also offer spay and neutering services for a very minimal fee.

Mayor Pro-Tem Hechler: Last year when we reviewed the subrecipient applications, we were going to cut everyone down a certain percentage every year to wean them off. The reason for that perception last year was because the city was in dire strains and we had to take some very important steps in order for us to be more successful, and I think with our Management we have done some of those things so I have a different outlook on it this year. I think for this application especially, it is money well spent. It is only \$1,000 and if they didn't do what they do, the impact would be immediate on the animal shelter and community. Therefore, I feel that we should take each item one by one and discuss them a little bit.

Mayor Forrister: The Subrecipient Grant Application funding comes out of our general fund so we also need to be cautious about what we are funding. Like mentioned by Mayor Pro-Tem Hechler, last year we talked about weaning them off so that would give them time to look for other sources of funding. I think however, \$1,000 to this organization is in the best interest of the city as well.

City Attorney Rubin: I just wanted to explain that these applications are contractual. We are spending money, but you are getting something in exchange for that. You are getting a benefit. The application states how the residents of Truth or Consequences benefit from it. I think it is very important to keep that in mind. I don't want there to be some sort of suggestion that there is an anti-donation clause issue here. We are getting something in exchange for the money that we are spending.

Mayor Pro-Tem Hechler made a motion to approve and allocate \$1,000 to the Companion Animal Action Team (CAAT). Commissioner Mitchell seconded. Roll call was taken by the Clerk-Treasurer. Motion carried unanimously.

12. Discussion/Action: Approval of the FY 23/24 Subrecipient Grant Applications for Domestic Abuse Intervention Center (DAIC):

City Manager Swingle: I appreciate that the Commission is looking at these items on a case by case basis because our revenue is improving, however so are our expenses. As of right now, we are \$1 million dollars short on the general fund, but we are meeting with departments to do some more cuts to the budget.

Domestic Abuse Intervention Center (DAIC) explained that they are requesting the funds for \$500 for an Audit, and \$1,500 for telephone and internet. Other funding sources includes a CYFD grant and they received donations from the Magistrate Court

for their traffic tickets. They are going to try and use that to supplement for this until they are able to find something else. Everything they do is grant based and by donation.

Mayor Forrister: I think we need to take into consideration of what Bruce just said. If we were weaning everyone off, we would have taken \$250 off of the (CAAT) team, and we would take \$500 off of the (DAIC) so I just want to open this up for discussion to see what we need to look at because we are tapping into our general fund dollars at this point. Last year we awarded \$43,000 and we planned to take that down even further, and right now we are being asked for approximately \$82,000 so we need to be very cognitive on what we are giving away right now.

Commissioner Harrelson: Can we table the items and revisit them after we know what our budget looks like?

Mayor Forrister: We have to do something. I know we just approved (CAAT), but maybe we need to take them all back. We can let them present right now, and then table all of the approvals until after budget. We are going to ask our employees what they can cut from their budget, so I think we need to do the same thing in regards to these applications.

Tammy Gardner, Executive Assistant: It is not only our city funding that we need to think about. We need to also keep in mind that DFA suggested last year that we phase them out, or cut them off completely. You guys decided last year to phase them out.

Discussion ensued regarding the best way to handle the FY 23/24 Subrecipient Grant Applications that come from the general fund.

Commissioner Mitchell made a motion to rescind the allocation of funds to the Companion Animal Action Team (CAAT) until after they review the budget. Commissioner Harrelson seconded. Roll call was taken by the Clerk-Treasurer. Motion carried unanimously.

Commissioner Mitchell made a motion to table the allocation of funds to the Domestic Abuse Intervention Center (DAIC) until after they review the budget. Commissioner Harrelson seconded. Roll call was taken by the Clerk-Treasurer. Motion carried unanimously.

13. Discussion/Action: Approval of the FY 23/24 Subrecipient Grant Applications for Matthew 25 Food Pantry:

Matthew 25 Food Pantry explained that they are requesting the funding of \$8,700 to cover rent and a 3rd of their insurance.

Commissioner Fahl made a motion to table the allocation of funds to the Matthew 25 Food Pantry until after they review the budget. Commissioner Harrelson

seconded. Roll call was taken by the Clerk-Treasurer. Motion carried unanimously.

14. Discussion/Action: Approval of the FY 23/24 Subrecipient Grant Applications for Sierra Joint Office on Aging:

The Sierra Joint Office on Aging explained that they are requesting \$50,000 to help them continue operations of the Senior Center so they can continue to provide services to seniors in our community.

Commissioner Mitchell made a motion to table the allocation of funds to the Sierra Joint Office on Aging until after they review the budget. Commissioner Harrelson seconded. Roll call was taken by the Clerk-Treasurer. Motion carried unanimously

15. Discussion/Action: Approval of the FY 23/24 Subrecipient Grant Applications for Geronimo Trail Scenic Byway:

The Geronimo Trail Scenic Byway explained that they are requesting \$5,600 to help with the operation of the visitor center which includes telephone and internet, renters' insurance, website-related costs, postage, printing, office & visitor center supplies, and cleaning supplies now that they are responsible for cleaning at the new location.

Commissioner Fahl made a motion to table the allocation of funds to the Sierra Joint Office on Aging until after they review the budget. Commissioner Mitchell seconded. Roll call was taken by the Clerk-Treasurer. Motion carried unanimously

16. Discussion/Action: Approval of the FY 23/24 Subrecipient Grant Applications for MainStreet Truth or Consequences. City Manager Swingle

Commissioner Mitchell made a motion to table the approval of the FY 23/24 Subrecipient Grant Applications for MainStreet Truth or Consequences. Commissioner Harrelson seconded the motion. Roll call was taken by the Clerk-Treasurer.

**Hon. Merry Jo Fahl, Commissioner voted nay
Hon. Shelly Harrelson, Commissioner voted aye
Hon. Rolf Hechler, Mayor Pro-Tem voted aye
Hon. Destiny Mitchell, Commissioner voted aye
Hon. Amanda Forrister, Mayor voted aye**

Motion carried with a 4-0 vote.

Commissioner Mitchell made a motion to move item I21 after item I16. Mayor Pro-Tem Hechler seconded the motion. Roll call was taken by the Clerk- Treasurer. Motion carried unanimously.

21. Discussion/Action: Approval of the Turtleback Trail Network Plan.

City Attorney Rubin: I had a conversation with Commissioner Fahl about a question of recusal. It was a question about her serving on the committee and serving on the Commission level and being able to vote.

Commissioner Fahl: Just as a reminder, this Turtleback Network Plan was a request by the city to the National Parks Service. It was not a Jornada RC&D plan. If it had been I would have recused myself, but it wasn't. I served on the steering committee. Mayor Forrister served on the steering committee, and a lot of people in other entities served on that Steering Committee. I did not get paid when Jornada would try and run the meetings. I was a total volunteer, and there was no financial benefit at all so I don't see how I needed to recuse myself, and I won't.

Mayor Forrister: You are presenting this item Are you going to vote today?

Commissioner Fahl: Yes.

Mayor Forrister: Did you write any of this?

Commissioner Fahl: All of the members on the Steering Committee wrote this proposal.

Commissioner Harrelson: So you did have your hands on board to go into this document?

Commissioner Fahl: Yeah. Mayor, you were on the Steering Committee. We got input from you when you attended the meetings. We got input from everybody. This plan was a request to the National Parks Service. When they do plans, they gave community people help them develop the plan.

Mayor Forrister: I understand that, but you are presenting an item today, that you said that you shouldn't have recused yourself from. You don't think that is an issue?

Commissioner Fahl: It's not my plan.

Mayor Forrister: So why are you presenting it today?

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Commissioner Fahl: So I can answer some of the questions that were brought up at the last meeting.

Mayor Forrister: Then you should absolutely recuse yourself.

Commissioner Fahl: I am not going to recuse myself, so I don't know how you want to deal with it then.

City Attorney Rubin: The question of recusal is always at the discretion of each individual Commissioner, but I guess you always have to keep in mind a question of whether or not there is any appearance of the propriety when you make a decision.

Commissioner Fahl: According to the Government Conduct Act, it is only if you receive a financial benefit, and I am not.

City Attorney Rubin: I am not suggesting that it is a violation of the Governmental Conduct Act. I've always traditionally given the advice over the years that if there is something going on that would have the appearance from a member of the public of a position of propriety, I always say that it is a good idea to recuse yourself, but again, that is to the discretion of the Commissioner.

Commissioner Harrelson: So are you saying, if we as an individual have a vested interest in the subject coming before us, that you typically want to recuse yourself from the vote because you have a vested interest in it? Like a specialty group?

City Attorney Rubin: Legally, the Governmental Conduct Act is very narrowly written in state statute. If a proposed action is on the agenda which could directly influence or directly have an impact on your particular financial or property situation, then you are required to do so, if you have a conflict of interest. I however, always go a step further and tell the Commission and all of the boards, if there is an item on the agenda that there is a concern that a segment of the population would think that you cannot act fairly because you have an interest in something that was done in the particular topic.

City Manager Swingle: That is the key thing. Look at it as, you are a commissioner, and your next door neighbor is coming up on a kennel license, or a code enforcement issue, and you don't like that neighbor, or you like that neighbor, if your intention is skewed, and you are biased either way, you should recuse yourself.

Mayor Forrister: So legally, Commissioner Fahl I'm sure you are fine, but appearance wise, you are presenting an item, and then you are going to turn around and vote on it, when just today, I recused myself because I was related to somebody, and Mayor Pro-Tem recused himself because he spoke at a meeting.

Commissioner Fahl: This isn't a Jornada RC&D plan. Mayor you served on that steering committee. You got all of the emails and everything.

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Mayor Forrister: I will recuse myself if that is a perception. I am not presenting the item.

Mayor Pro-Tem Hechler: What if we go through the process, if you are going to present, and at the end depending on our discussion, you can decide if you wanted to recuse yourself or not. Will that work?

Commissioner Fahl: I probably won't.

City Attorney Rubin: We have already had two recusals today, so if the decision is made if someone is going to recuse themselves, I think they should do it before the discussion even happens.

Mayor Pro-Tem Hechler: We already had a presentation on this so we don't have to have another presentation. We can have someone else take the lead, and have discussions that way, and not have Merry Jo present.

Mayor Forrister: I think we tabled it because we wanted to get legal advice.

City Attorney Rubin: I was asked to look into some issues that were presented at the last meeting, so I drafted a letter, and it is in your packet. The letter may be perceived as if I do not recommend that you adopt the plan, and I did not mean to give that impression. If you take a look at the end of my letter, my conclusion was, going forth, I suggested that the proponents of this plan should meet with the city staff to discover the feasibility of undertaking the numerous projects in the plan. It is almost a matter of common sense that adopting the plan is going to involve more man power, and it is going to involve undertaking projects which may not have the expertise to pursue, and of course liability is always going to be more of an issue. There is always going to be more exposure, so those are things that are just common sense that I tried to put in my letter. I just went through different recommendations that were within the plan where this would come to life, and where there are different things that were recommended that we would have to consider that it would require more hiring and man power, etc.

Mayor Pro-Tem Hechler: There are a lot of people who should be recognized for their efforts in these things. This has been going on for several years now, and we have had community involvement at public meetings, and a lot of folks contributed to this overall masterplan, and it is important because it is a representation of what the community wanted. I am hoping that we will discuss it, and pass portions of this plan, if not all of the plan because I think it will benefit this community in the long run. I've had several conversations with folks who want things to do in this community when they come here. I looked at Jay's letter, and there is nothing in his letter that is astronomical. We don't have to adopt the boat act, but we do have to do something because if there is a drowning that is happening in the river, we have to be able to respond, so there has to be some training for our volunteer fireman or police staff or someone who is doing some sort of rescue. Anything that we do as far as grand applications should be approved by the Commission before it goes through so if this group is going to act on behalf of the city and apply for a grant, they should come to the Commission first, and tell us what

they are going to apply for and tell us what the matches are, what the grant is, and what our obligations are. I think we can have a discussion about that down the road and we can figure that out.

Mayor Forrister: This needs to be a draft plan. It needs to come before us, and we need to make modifications that the city feels are appropriate. I talked to the county and property owners on the other side of the river, and they have major concerns with the plan. One of the major trials goes through private property. Nobody has ever brought that up, but Turner Ranch can see that, and they have serious issues with it.

Commissioner Harrelson: Maybe all of those entities and everybody involved need to come and speak to us and talk about it at a round table discussion. Maybe that is what needs to happen.

Mayor Forrister: When we vote on this, we need to vote on what's best for the city. Not what is in the best interest of whatever group we belong to. I agree that we need to have a conversation with everybody who is involved.

Mayor Pro-Tem Hechler: There have been some substantial changes to the plan already. The plan will no longer be called a master plan. It will now be called a concept plan which I think releases some of that responsibility for us. Another thing that we should be aware of is that any public trail development on private land will be established through voluntary agreements between private land owners and a trail administrator or manager so if we do it with private land owners, it needs to be done as a contract. We have liability now at Rotary Park, and we are already inviting people to float that river and come out of that park so does enhancing that area and making it easier for folks to get out of the river enhance or liability or does it reduce our liability? Anything that happens within the river has to happen hand in hand with the bureau of reclamation, and I believe they are on board with trying to do some of those things. Those are the type of things that we need to change the wording of in the plan so we know that we are not obligated for and the appropriate entity that is identified to deal with it, and then hopefully we can pass a conceptual plan that guides us, but does not force us to go a certain direction.

Commissioner Mitchell: How is that plan related to the feasibility study?

Commissioner Fahl: Some members of the steering committee served on the steering committee for that. They only contacted our steering committee twice, but other than that they are not related. We used some of their information from their survey about what people were desiring to have, but nothing other than that.

City Manager Swingle: I think conceptually, the biggest difference is the feasibility study is trying to come up with development. The trails is not. They are trying to do the opposite. It is trails only. It is not said in the report, but we were there for the discussions. It was actually recommended that we buy that land so it could be used as

part of the trails network, and those things are just not doable by the city. We just don't have the money for it.

Mayor Pro-Tem Hechler: We should meet with the steering committee and handle each one of these items in Jay's letter. I think if we do approve this plan after the little hurdles here, then we could take little bites of the apple and we get through the process.

City Manager Swingle: I think that everyone has to lay their cards on the table. I think you need to be told yes, we plan on ultimately pursuing, or eliminating off road vehicle access in this adjacent area. These are the things that concern me the most. I suggest that you let staff bring everybody together, and once we can do that we can set up a public meeting, but there has to be some discussion before everyone comes in here.

Mayor Pro-Tem Hechler made a motion to table the approval of the Turtleback Trail Network Plan until we can develop a strategy to meet with the parties concerned so we can answer the questions that were presented by our attorney and then have a meeting further down the road. Commissioner Harrelson seconded the motion. Roll call was taken by the Clerk-Treasurer. Motion carried unanimously.

Hon. Amanda Forrister, Mayor voted aye
Hon. Rolf Hechler, Mayor Pro-Tem voted aye
Hon. Destiny Mitchell, Commissioner voted aye
Hon. Shelly Harrelson, Commissioner voted aye
Hon. Merry Jo Fahl, Commissioner voted nay

17. Discussion/Action: Approval of the FY 23/24 Subrecipient Grant Applications for Sierra County Historical Society (Geronimo Springs Museum).

Commissioner Fahl recused herself from this item as she is a member on the board.

City Manager Swingle: Sierra County Historical Society (Geronimo Springs Museum) is requesting \$5,000. This money has traditionally come from Lodgers Tax.

Don Armijo explained that this application for funding is for the purpose of city utilities at their facility.

Commissioner Mitchell made a motion to approve the FY 23/24 Subrecipient Grant Applications for Sierra County Historical Society (Geronimo Springs Museum) for \$5,000. Commissioner Harrelson seconded the motion. Roll call was taken by the Clerk-Treasurer.

Hon. Destiny Mitchell, Commissioner voted aye
Hon. Shelly Harrelson, Commissioner voted aye
Hon. Amanda Forrister, Mayor voted aye
Hon. Rolf Hechler, Mayor Pro-Tem voted aye
Hon. Merry Jo Fahl, Commissioner recused herself from the vote.

Motion carried with a 4-0 vote and 1 recusal.

18. Discussion/Action: Approval of the FY 23/24 Subrecipient Grant Applications for The Club of Sierra County:

City Manager Swingle: The Club of Sierra County is requesting \$20,000. This would be funds from the general fund.

Sammy Luna reviewed the purpose of the Club, and explained why they are applying for funding. Most of their funding is through grants that Apple Tree holds, because they are considered a site for them, but they are trying to become self-sufficient to have their own funding.

Commissioner Fahl made a motion to table the approval of the FY 23/24 Subrecipient Grant Applications for The Club of Sierra County. Commissioner Harrelson seconded the motion. Roll call was taken by the Clerk-Treasurer. Motion carried unanimously.

19. Discussion/Action: Request of memorial donation for benches to be placed in city parks:

OJ Hechler, Community Services Director: This is for two memorial donation requests. Per policy, these requests have been reviewed by staff, and they have gone before our Recreation Advisory Board for recommendation. One of the benches is in honor of Coleen Davis from the Bountiful Alliance and the Farmers Market. She was the Farmers Market Manager from 2008-2020 and that will be engraved on the bench, and the bench will be put in at Ralph Edwards Park along the river. The other donation request is for a bench to be placed at the fish pond area. The reference on that one that says "*he loved his father and was a fisher of men*" does not quote a number or verse from the bible so we thought it would be ok for a park.

Commissioner Fahl made a motion to approve the request of memorial donation for benches to be placed in city parks. Commissioner Harrelson seconded the motion. Roll call was taken by the Clerk-Treasurer. Motion carried unanimously.

City Manager Swingle commended OJ on his recent certification as a certified pool operator.

20. Discussion/Action: Approval of Purchase Requisitions over \$20,000:

City Manager Swingle reviewed the Purchase Requisitions over \$20,000 that were provided in the packet.

Commissioner Fahl made a motion to approve the Purchase Requisitions over \$20,000. Commissioner Mitchell seconded the motion. Roll call was taken by the Clerk-Treasurer. Motion carried unanimously.

22. Discussion/Action: Approval of Commercial Lease between Integrated Environment Services QOZB, LLC and the City of Truth or Consequences:

City Manager Swingle: This is the lease agreement to lease space for the Visitor Center. It is the space west of Bank of the Southwest by the parking lot. Gina requested a few things for the Center and Integrated Environment Services QOZB, LLC is going to accommodate them and design it the way they want it designed. We are getting the first 6 months' rent free of charge because they want to keep the properties at a certain dollar value per square ft. This will be paid with Lodgers Tax funding.

Commissioner Mitchell made a motion to approve the Commercial Lease between Integrated Environment Services QOZB, LLC and the City of Truth or Consequences. Commissioner Fahl seconded the motion. Roll call was taken by the Clerk-Treasurer. Motion carried unanimously.

23. Discussion/Action: Approval of purchase of new Report Management System for the Police Department:

City Manager Swingle: This is the purchase request for the report management system for the Police Department. The costs and terms and conditions are included in the packet.

Mayor Pro-Tem Hechler made a motion to approve the purchase of the new report management system for the Police Department. Commissioner Harrelson seconded the motion. Roll call was taken by the Clerk-Treasurer. Motion carried unanimously.

24. Discussion/Action: Approval of the 22/23 Sierra County Recreation and Tourism Advisory Board Annual Contract:

City Manager Swingle: This is an annual request that we have had, certainly since I have been here, but I am sure that it has been going on for many, many years. They are requesting \$17,000. That is what we routinely funded them. This is also used through Lodgers Tax funding. I believe all of this goes to marketing, advertising, and promoting, so it meets the criteria. Any money that we invest in marketing and advertising for this region benefits Truth or Consequences, Williamsburg, Elephant Butte and the County.

Commissioner Fahl recused herself from this item as she is the city representative for that board.

Commissioner Mitchell made a motion to approve the 22/23 Sierra County Recreation and Tourism Advisory Board Annual Contract for \$17,000. Mayor Pro-Tem Hechler seconded the motion. Roll call was taken by the Clerk-Treasurer.

Hon. Destiny Mitchell, Commissioner voted aye

Hon. Shelly Harrelson, Commissioner voted aye

Hon. Amanda Forrister, Mayor voted aye

Hon. Rolf Hechler, Mayor Pro-Tem voted aye

Hon. Merry Jo Fahl, Commissioner recused herself from the vote.

Motion carried with a 4-0 vote and 1 recusal.

25. Discussion/Action: Amendment to the Water/Wastewater Pay Structure Plan:

City Manager Swingle commended Arnie Castaneda for his election to the New Mexico Rural Water Association, as well as getting elected to the executive board.

City Manager Swingle: If you recall, several months ago we had a consultant do an inspection of the Waste Treatment Plant, and they came up with a number of findings. Back in the day, we had a lot of employees in the water and wastewater department who had a level 2, 3, and 4 certifications. When those individuals left, we went away from that, and we only hired general laborers. Operationally we can't comply with the permit requirements in water or wastewater. Arnie can't be in all of the places he needs to be in a given day to ensure that those things that require a certain credential is onsite for that particular operation so he came up with a plan to phase in some of these positions over time. His request is for an increase in salary of about \$88,000 in wastewater, and a \$30,000 increase in water. The increase is for the credential levels that we need to have. We did it this way because all of the other positions are in the pay plan, and these are not because the positions do not exist.

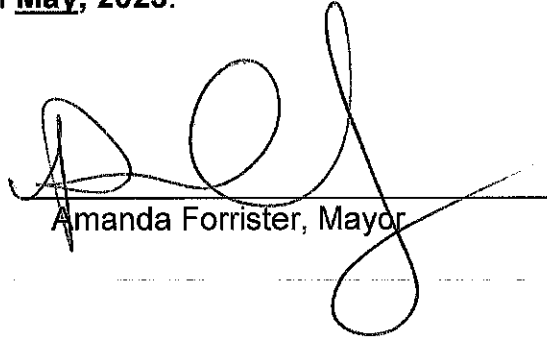
CITY COMMISSION APRIL 12, 2023 REGULAR MEETING MINUTES

Commissioner Mitchell made a motion to approve the amendment of the Water/Wastewater Pay Structure Plan. Commissioner Fahl seconded the motion. Roll call was taken by the Clerk-Treasurer. Motion carried unanimously.

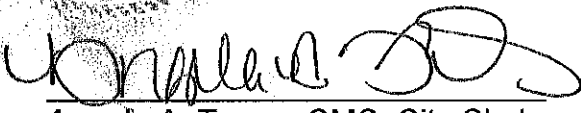
J. ADJOURNMENT:

Mayor Forrister adjourned the meeting at 2:21 p.m.

Passed and Approved this 10th day of May, 2023.



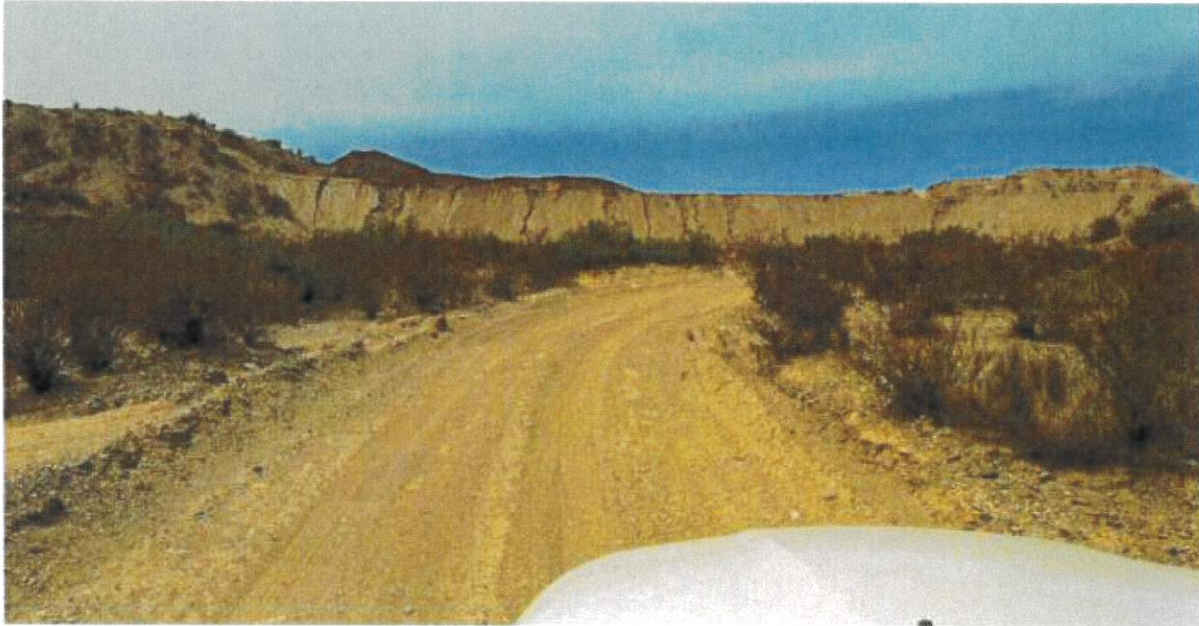
Amanda Forrister, Mayor



Angela A. Torres, CMC, City Clerk



Cantrell Dam
Hydrology And Hydraulics Report
Project Site: Lat. 33°7'50.9772"N, Long. 107°17'11.2776"W



Prepared for:
The City of Truth or Consequences

Prepared by:
Wilson & Company, Inc. Engineers & Architects
4401 Masthead Suite 150
Albuquerque, New Mexico 87109
(505) 348-4000

April 2023
WCEA File: 22-600-147-00



THE CITY OF TRUTH OR CONSEQUENCES

CANTRELL DAM HYDROLOGY AND HYDRAULICS REPORT

APRIL 2023

I, Glen Selover, do hereby certify that this report was prepared by me or under my direction and that I am a duly registered Professional Engineer under the laws of the State of New Mexico.

Glen Selover, P.E.
State of New Mexico P.E. No. 19273

4/5/2023

Date





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Appendix

Appendix A Exhibits

- A1 Overall Basin Map
- A2-A17 Basin Map
- A18 Hydrologic Soil Group
- A19 NRCS Land Use

Appendix B Hydrology

- B1-B4 Rainfall Information
- B5-B6 HEC-HMS Input Parameters
- B7 HEC-HMS Basin Map
- B8 HEC-HMS Results

Appendix C Hydraulics

- C1 Two Standpipes Dam Top of Riser Flows
- C2 Two Standpipes Dam Principal Spillway Culvert Flow
- C3 Two Standpipes Dam Riser Orifice Flow
- C4 Two Standpipes Auxiliary Spillway Flow for Trapezoidal Spillway
- C5 Two Standpipes Summary of Flows
- C6 Two Standpipes Stage Storage

Appendix D HEC-RAS Output

- D1 Existing 50-YR Two Standpipes Depth Map
- D2 Existing 50-YR Two Standpipes Depth Map Cook St.
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- D6 Existing 100-YR Two Standpipes Depth Map Cook St.
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- D8 Existing 100-YR Two Standpipes Velocity Map Cook St.
- D9 Existing 50-YR Dam Breach Depth Map
- D10 Existing 50-YR Dam Breach Depth Map Cook St.
- D11 Existing 50-YR Dam Breach Velocity Map
- D12 Existing 50-YR Dam Breach Velocity Map Cook St.
- D13 Existing 100-YR Dam Breach Depth Map
- D14 Existing 100-YR Dam Breach Depth Map Cook St.
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- D16 Existing 100-YR Dam Breach Velocity Map Cook St.
- D17 Alternative #1 Structure Map
- D18 Alternative #1 Structure Profile
- D19 Alternative #1 50-YR Two Standpipes Depth Map
- D20 Alternative #1 100-YR Two Standpipes Depth Map
- D21 Alternative #1 50-YR Dam Breach Depth Map
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Appendix E Photos

- E1 Photo Location Map
- E2-E7 Photos

Appendix F Correspondence



1. General Project Information

1.1 Descriptions and Purpose

The City of Truth or Consequences authorized Wilson & Company, Inc., Engineers and Architects (WCI) to study the existing hydrology contributing to Cantrell Dam and analyze the capacity of downstream infrastructure. Cantrell Dam is located near the City of Truth or Consequences in Sierra County, New Mexico as shown in Vicinity Map in Figure 1. Cantrell Dam is 400-feet long and the dam top is 20-feet wide. The dam has a 30-feet auxiliary spill way and two 24-inch CMP standpipes in the dam pool, both structures outfall south towards a 10-foot diameter CMP under I-25.

Figure 1 Vicinity Map



1.2 Field Observation and Survey

WCI conducted a site visit of Cantrell Dam and downstream infrastructures on May 26, 2022. Only one of the two standpipes is functioning. The other is in poor condition, the orifice holes are damaged, and the pipe is clogged. The outlet of the one functioning pipe is more eroded due to the pipe passing all the flows. The front of the dam face shows signs of erosion. The 10-foot CMP culvert under I-25 is in good condition. The downstream channel shows signs of significant sedimentation following the large storm event in 2020. A new berm was constructed along Cook St. to prevent uncontained flows from flooding the area between Cook St and S Broadway St. The 3-10' x 4' concrete box culverts (CBC) under S Broadway St have 0.5 to 2 -feet of sediment build up. The channel downstream of the CBCs, to the final outfall of the Rio Grande is in good condition.

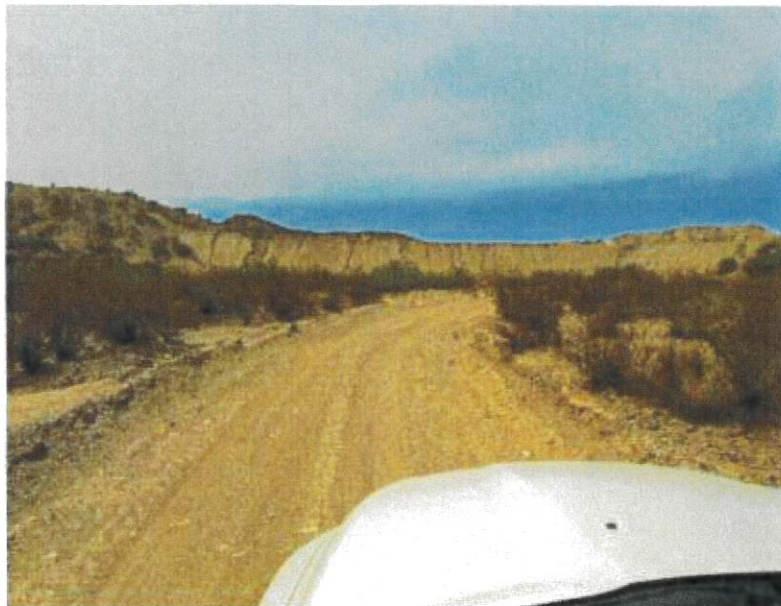


Survey data and aerial mapping of the dam and downstream infrastructure were completed by WCI. Cantrell Dam is located on land owned by the Bureau of Land Management (BLM) based data collected by surveyors from the title company and ownership report title.

Figure 2 Photo Showing Condition of Two Standpipes



Figure 3 Photo Showing Front Face of Cantrell Dam





1.3 FEMA Floodplains

The area downstream of Cantrell Dam is in a Federal Emergency Management Agency (FEMA) floodplain. The Flood Insurance Rate Maps (FIRM) for the National Flood Insurance Program (NFIP) are the City of Truth or Consequences New Mexico Sierra County (350073 0005 C), the Village of Williamsburg Sierra County (350074 0001 C), and Sierra County New Mexico Unincorporated Areas Panel 490 of 1150 (350071 0490 C) with effective date of 07/16/1996.

1.4 Coordination with BLM

WCI reached out to the BLM District Office in Las Cruces, NM regarding Cantrell Dam. A reply was received on February 27, 2023, from Donald McClure the Assistant District Manager. Donald's response stated "A records check showed no authorization for this structure was issued by BLM. BLM does not maintain this structure. If the City is interested in maintaining or reconstructing the structure, a Right-of-Way would be needed." A copy of the email can be found in Appendix F.

2. Hydrologic Analyses

The following sections describe the analysis for the 50-YR and 100-YR, 24-hour storm events under the existing dam storage capacity. The purpose of this analysis is to determine the 100-YR, 24-hour storm event peak flows and review the functionality of Cantrell Dam based on past flooding in the City of Truth or Consequences and the Village of Williamsburg.

2.1 Watershed Location and Area

Cantrell Dam is near the City of Truth or Consequences, Sierra County, New Mexico. Refer to Figure 1 Vicinity Map. Cantrell Dam is north of I-25 and the village of Williamsburg. The existing dam currently drains 0.757 square miles (484.3 acres) of contributing area to the north. The contributing basin generally drains from north to south. The contributing basin has steep slopes in the upstream areas with average slopes of approximately 60%. In the channels just upstream of the dam the average slope is approximately 6%.

2.2 Drainage Basin Delineation

The publicly available LiDAR data from the United States Geological Survey (USGS) and aerial mapping data collected by WCI were used to model existing topography for use in the development of the watershed basin boundaries. The USGS LiDAR data was used in the upstream areas and the aerial data collected by WCI was used from the dam pool to the outfall into the Rio Grande. The data was processed with Arc GIS utilizing the hydrology tools to delineate the preliminary basin boundaries. Basin boundaries were then edited and verified using aerial imagery and a field visit.

2.3 Rainfall Data and Distributions

The 50 and 100-YR rainfall depths were downloaded from the NOAA Atlas 14 website for the 24-hour storm event in accordance with the NMDOT Drainage Manual (DDM). Table 1 shows rainfall values used to define the frequency storm event. See page B1 Rainfall information in Appendix B.



Table 1 NOAA Precipitation Depths (in)

PRECIPITATION FREQUENCY ESTIMATES										
by duration for ARI (years):	1	2	5	10	25	50	100	200	500	1000
5-min:	0.209	0.271	0.363	0.434	0.53	0.607	0.687	0.77	0.884	0.976
10-min:	0.318	0.413	0.553	0.661	0.807	0.924	1.05	1.17	1.35	1.49
15-min:	0.395	0.512	0.685	0.819	1	1.15	1.3	1.45	1.67	1.84
30-min:	0.532	0.689	0.923	1.1	1.35	1.54	1.75	1.96	2.25	2.48
60-min:	0.659	0.853	1.14	1.37	1.67	1.91	2.16	2.42	2.78	3.07
2-hr:	0.746	0.96	1.28	1.54	1.91	2.2	2.53	2.87	3.37	3.78
3-hr:	0.791	1.01	1.33	1.59	1.96	2.26	2.59	2.94	3.44	3.87
6-hr:	0.899	1.14	1.48	1.75	2.13	2.44	2.77	3.12	3.62	4.04
12-hr:	0.998	1.26	1.62	1.9	2.29	2.6	2.93	3.28	3.76	4.16
24-hr:	1.22	1.53	1.92	2.24	2.69	3.07	3.49	3.95	4.63	5.21
2-day:	1.31	1.65	2.07	2.41	2.9	3.31	3.77	4.27	5.01	5.65
3-day:	1.42	1.78	2.22	2.59	3.12	3.56	4.06	4.61	5.44	6.14
4-day:	1.53	1.91	2.38	2.77	3.34	3.82	4.36	4.95	5.86	6.63
7-day:	1.77	2.21	2.73	3.16	3.77	4.28	4.84	5.45	6.35	7.12
10-day:	1.96	2.45	3.03	3.51	4.21	4.79	5.43	6.14	7.19	8.08
20-day:	2.5	3.12	3.81	4.35	5.11	5.73	6.4	7.1	8.11	8.95
30-day:	2.93	3.65	4.39	4.98	5.8	6.43	7.11	7.82	8.81	9.61
45-day:	3.51	4.35	5.2	5.86	6.76	7.46	8.18	8.93	9.96	10.8
60-day:	4.08	5.06	6.04	6.8	7.82	8.61	9.43	10.3	11.4	12.3

2.4 Soils Data and Runoff Curve Numbers, Runoff Coefficients

Soils information, including Hydrologic soil group (HSG) and land use type, were downloaded from the United State Geological Survey (USGS) Web Soil Survey (WSS) National Land Cover Database (NLCD) land cover data, respectively. See page A18 in Appendix A for hydrologic soil group exhibit. See Table 2 for the Curve Number Selection Table.

Table 2 Curve Number Selection

NRCS Cover Type	2016 NLCD Type	NLCD Value	Curve Number for Hydrologic Soil Group			
			A	B	C	D
Barren Rock and Open Water	Open Water	11	98	98	98	98
Barren Rock and Open Water	Perennial Ice/Snow	12	98	98	98	98
Open Space, Poor Condition (Grass Cover < 50%)	Developed, Open Space	21	68	79	86	89
Residential Districts (1/3 acre lots)	Developed, Low intensity	22	57	72	81	86
Residential Districts (1/4 acre lots)	Developed, Medium intensity	23	61	75	83	87
Industrial	Developed, High intensity	24	81	88	91	93
Barren Rock and Open Water	Barren Land (Rock/Sand/Clay)	31	98	98	98	98
Woods - Fair (Woods are Grazed but not burned, Some Forrest Litter)	Deciduous Forest	41	36	60	73	79
Woods Grass Combo - Fair (50% to 75% Cover)	Evergreen Forest	42	43	65	76	82
Woods - Fair (Woods are Grazed but not burned, Some Forrest Litter)	Mixed Forest	43	36	60	73	79
Desert Shrub - Poor (<30% Ground Cover)	Shrub Scrub	52	63	77	85	88
Herbaceous - Poor (<30% Ground Cover)	Grassland/Herbaceous	71	63	80	87	93
Meadow - Continuous Grass, Protected from Grazing and generally mowed for Hay	Pasture/Hay	81	30	58	71	78
Row Crops - Contoured, Poor Condition	Cultivated Crops	82	70	79	84	88
Barren Rock and Open Water	Woody Wetlands	90	98	98	98	98
Barren Rock and Open Water	Emergent Herbaceous Wetlands	95	98	98	98	98



2.5 Time of Concentration and Lag Time Computations

Time of Concentration was computed based on criteria set for in the DDM. Drainage flow paths were set into three different categories.

- Sheet Flow – flow over plane surfaces, first 100 feet of flow.
- Shallow Concentrated Flow – Flow concentrated in gullies and swales (Curb and Gutter), next 2000 feet of flow.
- Channel Flow – gullying evident in more than 10% of the primary watercourse, remainder of flow

Sheet flow travel times were calculated using a simplified version of the Manning's Kinematic Equation:

$$Tt = \frac{0.007(nl)^{0.8} * 60}{(P_2)^{0.5} S^{0.4}}$$

Where:

Tt = Travel Time, minutes

n = Mannings Roughness Coefficient, Per NMDOT table 402 – 7

l = sheet flow length, ft (100 ft typical)

P_2 = 2 – year, 24 – hour rainfall, in (1.36 inches)

S = slope, $\frac{ft}{ft}$

Shallow Concentrated flow travel times were computed using the upland method:

$$Tt = \frac{L}{60 * V}$$

Where:

Tt = Travel Time, minutes

l = Shallow Concentrated flow length, ft

V = average velocity, $\frac{ft}{sec}$

Channel flow travel times were calculated using the Kirpich Equation:

$$Tt = 0.0078 * L^{0.77} * S^{-0.385}$$

Where:

Tt = Travel Time, minutes

l = maximum length of water travel, ft

S = surface slope, $\frac{ft}{ft}$



Velocities were calculated using equations from Table 402-8 from the DDM. For the shallow concentrated reach lengths the Nearly Bare and Untilled (overland flow); and Alluvial Fans in Western Mountain Regions land use type was selected. The three travel times were then added together to get a total time of concentration. A minimum time of concentration of 10 minutes was used per the DDM. Appendix B shows a summary of the time of concentration values.

2.6 Hydrologic Model Methodology

The U.S. Army Corps. of Engineers (USACE) Hydrologic Modeling System (HEC-HMS) V 4.8 was used in the analysis. The basins' geometry information is inputted into HEC-HMS basin models as "Two Standpipes" and "Dam Breach" to represent the current conditions with both standpipes functioning and a proposed condition with the dam breached. Two different conditions modeled in HEC-HMS. The first condition is assuming the current dam has its maintenance concerns addressed and continues to provide detention. The maintenance concerns include the cleaning out and repairing the standpipes, so both are functioning. This condition is called "Two Standpipes". The other condition is proposing the dam is breached and no more detention will be provided. This condition is called "Dam Breach". The basin schematic from HEC-HMS is in Appendix B, page B-7. Appendix B also contains the HEC-HMS input calculations and results.

2.7 HEC-HMS Results

The peak discharges and volumes of the basins can be seen in Table 3. The maximum elevation in the dam pool is 4397.3 feet for the 100-YR event, and the auxiliary spillway crest is at 4396 feet. The auxiliary spillway is in effect for both the 50 and 100-YR events. See Section 3.1 for determination of the rating curve for the outfall structure of the dam. See Appendix B for a full summary of the output from HEC-HMS.

Table 3 100-YR HEC-HMS Results

ID	Area		Dam Breach			Two Standpipes		
	ac	sq. mi.	Peak Discharge	Time of Peak	Volume	Peak Discharge	Time of Peak	Volume
			cfs		ac-ft	cfs		ac-ft
C-101	59.65	0.09	37.9	06:35	4.7	37.9	06:35	4.7
C-102	92.86	0.15	47.6	06:30	5.8	47.6	06:30	5.8
C-103	484.29	0.76	305.0	06:35	38.3	305.0	06:35	38.3
C-104	16.19	0.03	7.4	06:20	0.8	7.4	06:20	0.8
C-105	36.29	0.06	27.7	06:25	2.9	27.7	06:25	2.9
C-201	20.03	0.03	23.2	06:25	2.2	23.2	06:25	2.2
C-202	39.36	0.06	18.7	06:25	2.1	18.7	06:25	2.1
C-203	18.69	0.03	13.0	06:25	1.4	13.0	06:25	1.4
C-301	50.94	0.08	21.7	06:35	3.0	21.7	06:35	3.0
C-401	27.14	0.04	26.7	06:45	3.7	26.7	06:45	3.7



3. Hydraulic Analyses

3.1 Existing Dam Properties

The existing dam outlets consist of a principal spillway and an auxiliary spillway. The existing principal spillway is 2–24-inch CMP standpipes. Each standpipe has four 8-inch orifices at varying elevations along the standpipes. Currently, one of the standpipes is blocked with sediment and the pipe is damaged. The earthen auxiliary spillway is a trapezoidal section with a crest elevation of 4396 feet. The section has a 20' bottom width, 2.50:1 side slope, and a 30' crest length. See Table 4 for the stage storage and see Table 5 for the existing principal and auxiliary spillways' rating table.

Table 4 Cantrell Dam Stage Storage

Existing Volume						Notes
Elevation	Area		Volume			
FT	SF	AC	CF	ACFT - Interval	ACFT - Cumulative	
4,382.0	0	0.0	0	0.00	0.0	Spillway Elevation
4,383.0	20	0.0	10	0.00	0.0	
4,384.0	299.62	0.0	160	0.00	0.0	
4,385.0	1,350.42	0.0	825	0.02	0.0	
4,386.0	2,687.94	0.1	2019	0.05	0.1	
4,387.0	6,192.54	0.1	4440	0.10	0.2	
4,388.0	11,278.33	0.3	8735	0.20	0.4	
4,389.0	17,592.90	0.4	14436	0.33	0.7	
4,390.0	23,387.76	0.5	20490	0.47	1.2	
4,391.0	28,602.56	0.7	25995	0.60	1.8	
4,392.0	33,824.95	0.8	31214	0.72	2.5	
4,393.0	39,001.07	0.9	36413	0.84	3.3	
4,394.0	44,024.84	1.0	41513	0.95	4.3	
4,395.0	50,968.13	1.2	47496	1.09	5.4	
4,396.0	83,061.49	1.9	67015	1.54	6.9	
4,397.0	105,710.55	2.4	94386	2.17	9.1	
4,398.0	125,236.03	2.9	115473	2.65	11.7	
4,399.0	147,455.02	3.4	136346	3.13	14.9	
4,400.0	164,839.78	3.8	156147	3.58	18.4	
4,401.0	181,270.28	4.2	173055	3.97	22.4	
4,402.0	203,103.42	4.7	192187	4.41	26.8	Top of Embankment



Table 5 Cantrell Dam Outfall Rating Curve

WSEL (ft)	Existing Storage Acre-Feet	Principle Riser Orifice Flows (cfs)	Principle Top of Riser Flows+ Orifice Flows (cfs)	Principle 2-24" Pipe Flows (cfs)	Principle Spillway (cfs)	Auxiliary Spillway (cfs)	Total Flow (cfs)	Notes
4382	0.0	0.0	0.0	11.9	0.0	0.0	0.0	
4383	0.0	0.0	0.0	32.0	0.0	0.0	0.0	
4384	0.0	0.0	0.0	51.8	0.0	0.0	0.0	
4385	0.0	0.0	0.0	61.5	0.0	0.0	0.0	
4386	0.1	3.2	3.2	63.0	3.2	0.0	3.2	
4387	0.2	4.9	4.9	66.0	4.9	0.0	4.9	
4388	0.4	7.6	7.6	68.8	7.6	0.0	7.6	
4389	0.7	11.3	11.3	71.6	11.3	0.0	11.3	
4390	1.2	13.7	13.7	74.3	13.7	0.0	13.7	
4391	1.8	19.7	19.7	76.9	19.7	0.0	19.7	Controlled by Tower
4392	2.5	24.3	24.3	79.4	24.3	0.0	24.3	
4393	3.3	28.7	28.7	81.8	28.7	0.0	28.7	
4393.78	3.3	32.1	32.1	83.6	32.1	0.0	32.1	
4393.90	3.3	32.6	33.3	83.9	33.3	0.0	33.3	
4394	4.3	32.9	34.8	84.1	34.8	0.0	34.8	
4394.31	4.3	34.1	41.1	84.9	41.1	0.0	41.1	
4394.50	4.3	34.7	47.4	85.3	47.4	0.0	47.4	
4395	5.4	36.4	60.8	86.4	60.8	0.0	60.8	
4396	6.9	39.5	74.6	88.7	74.6	0.0	74.6	Auxiliary Spillway Crest
4397	9.1	42.3	85.6	90.9	85.6	53.6	139.2	
4398	11.7	44.9	95.0	93.0	93.0	197.5	290.5	
4399	14.9	47.4	103.5	95.1	95.1	406.8	501.8	Controlled by 24"
4400	18.4	49.7	111.2	97.1	97.1	681.0	778.1	
4401	22.4	51.9	118.4	99.1	99.1	1021.9	1121.0	
4402	26.8	54.1	125.2	101.1	101.1	1432.0	1533.0	Dam Crest

The rating curve used in HEC-HMS to route the flood through the existing outflow structures during the 100-YR storm event is a combination of the principal and auxiliary spillway flows and is shown in Table 6.

Based on the Rules and Regulations Governing Dam Design, Construction, and Dam Safety from the Office of the State Engineer (OSE) Cantrell Dam does not meet the criteria to be classified as a jurisdictional dam. The dam height from the front face is approximately 35-feet, and the storage capacity below the spillway is 6.9 acre-feet. The storage capacity for Cantrell dam is below the 15 acre-feet minimum for jurisdictional dams.



Table 6 Cantrell Dam Outfall Rating Curve Used in HEC-HMS

WSEL	Existing Storage	Total Flow	Notes
(ft)	Acre-Feet	(cfs)	
4382	0.0	0.0	Controlled by Tower
4383	0.0	0.0	
4384	0.0	0.0	
4385	0.0	0.0	
4386	0.1	3.2	
4387	0.2	4.9	
4388	0.4	7.6	
4389	0.7	11.3	
4390	1.2	13.7	
4391	1.8	19.7	
4392	2.5	24.3	
4393	3.3	28.7	
4393.78	3.3	32.1	Auxiliary Spillway Crest
4393.90	3.3	33.3	
4394	4.3	34.8	
4394.31	4.3	41.1	
4394.50	4.3	47.4	
4395	5.4	60.8	
4396	6.9	74.6	
4397	9.1	139.2	
4397.3	9.8	184.5	
4398	11.7	290.5	Controlled by 24"
4399	14.9	501.8	
4400	18.4	778.1	
4401	22.4	1121.0	
4402	26.8	1533.0	Dam Crest

3.2 Hydraulic Modeling Methodology

The U.S. Army Corps. of Engineers (USACE) River Analysis System (HEC-RAS) V 6.0 was used in the analysis. Both the existing and proposed conditions were modeled using HEC-RAS 2D. The basin schematic from HEC-HMS is in Appendix B, page B-7. Appendix B also contains the HEC-HMS input calculations and results.



3.3 HEC-RAS Results

3.3.1 Existing Conditions

Following the large storm event in 2020 a berm was constructed on the south side of the intersection of Cook Street and Hyde Street. The purpose of the berm was to keep flows downstream of Cantrell Dam in the channel and not impact the Sierra County Fairgrounds. The terrain data collected by WCI includes this newly constructed berm and is included in the existing condition HEC-RAS model. For both the two standpipes and dam breach models the berm keeps flows in the channel and protects the areas downstream of Cook Street. With the berm in place, Cook Street is inundated with 2 feet of water for the 100-YR event assuming Cantrell Dam provides detention. If Cantrell Dam were to be breached, and without further infrastructure improvements to Cook Street, then the inundation of nearby properties would increase by 0.25-0.50 feet. Downstream of Cook Street, the flows are contained within the existing channels and the 3-10' x 4' CBCs at S Broadway Street have capacity for the 100-YR storm event even with the dam breach condition. Based on this, the proposed alternative will focus on the area near the Cook Street crossing and provide a more long-term solution than the newly constructed berm.

The contributing basin to the east, Basin C-105, drains to S Broadway Street and this flow inundates the baseball fields, Louis Armijo Sports Complex, with 0.25-0.50 feet of water, with a velocity of less than one foot per second. This inundation is not related to Cantrell Dam.

3.3.2 Alternative #1

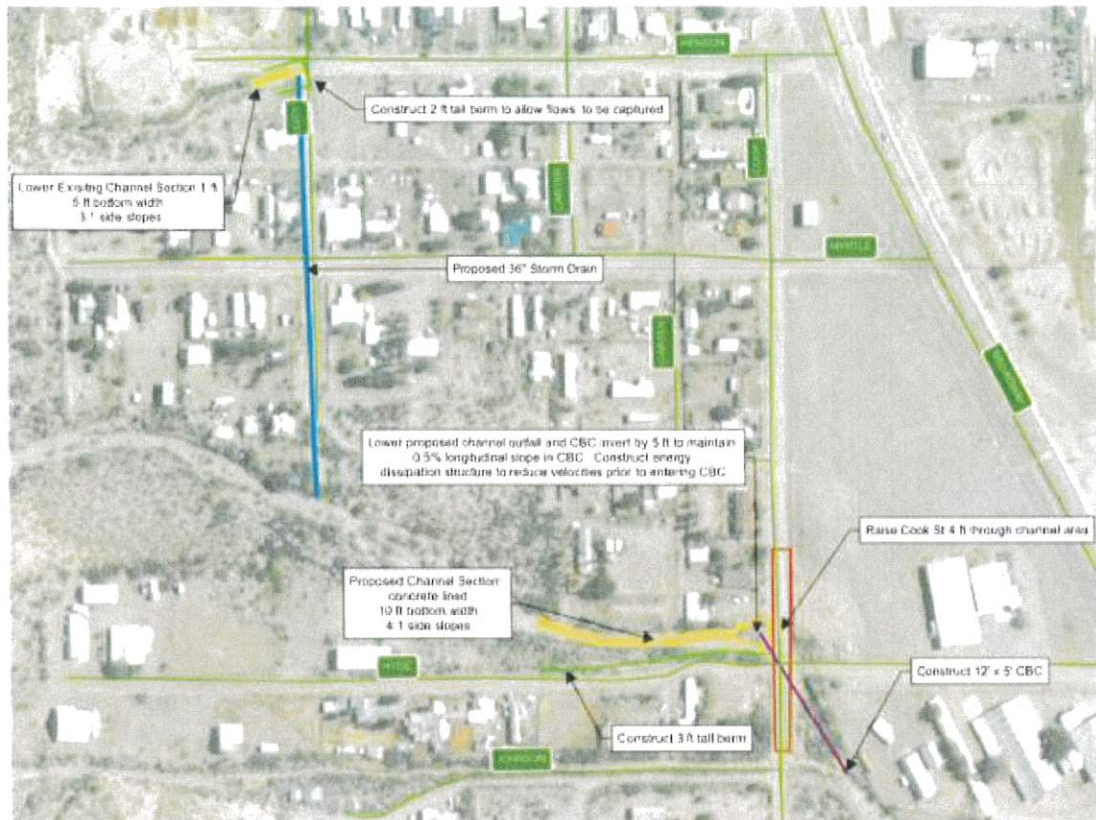
Alternative #1 includes the construction of a 12' x 5' CBC, channel grading, and raising the roadway surface along Cook Street. The goal of this alternative is to keep flows downstream of Cantrell Dam out of the driving surface and from inundating nearby properties. Cook Street will be raised 4 feet through the existing low water crossing area and accommodate existing driveways. The raised roadway surface will act as a berm to keep flows contained in the channel and provide cover for the CBC. The new upstream channel section is a 10-foot bottom trapezoidal concrete channel with 4:1 side slopes. At the entrance of the CBC, the channel will be lowered 5 feet to minimize the slope in the CBC. Energy dissipation will need to be provided in the drop.

Alternative #1 includes the construction of a proposed storm drain to mitigate flooding of residential housing on Henson Street and the baseball fields located south of S Broadway Street. Currently, in the northwest corner of the intersection of City Street and Henson Street, the downstream channel for Basin C-105 ends and the channel flow drains into Henson Street to convey south towards S Broadway Street. In Alternative #1, the 125-foot section of channel upstream of the intersection of City Street and Henson Street will be improved with 5-foot bottom width trapezoidal channel. The offsite flows will no longer drain into Henson Street, the existing channel will connect to a 36" storm drain. The storm drain will outfall to the existing channel downstream of Cantrell Dam. A berm was modeled at the inlet of the storm drain to contain the two feet of head. This will reduce the inundation in Henson Street and the



downstream infrastructure, including the baseball fields. Additionally, a secondary channel is recommended on the north side of S Broadway St to capture the runoff in the area south of the proposed storm drain. The secondary channel will reduce flows in S Broadway St and the baseball fields. See Figure 4 for an overview of Alternative #1 and Appendix D, pages D17 and D18 for additional details.

Figure 4 Alternative #1 Layout at Cook Street





4. Conceptual Cost Estimate and Recommendation Descriptions

See Table 7 for a Conceptual Cost Estimate for the alternative described above.

Table 7 Conceptual Cost Estimate

CANTRELL DAM DOWNSTREAM CHANNEL IMPROVEMENTS CONCEPTUAL ESTIMATE

ITEM NO.	SUMMARY OF QUANTITIES			ENGINEERS ESTIMATE		LOCATION
	ITEM	UNIT	QTY	UNIT PRICE	COST	
1	MOBILIZATION	LS	1	\$ 30,000.00	\$ 30,000.00	GENERAL
2	BORROW	CY	2,132	\$ 16.00	\$ 34,110.56	GENERAL
3	UNCLASSIFIED EXCAVATION	CY	712	\$ 12.00	\$ 8,538.48	GENERAL
4	36" CULVERT PIPE	LF	761	\$ 210.00	\$ 159,902.40	STORM DRAIN FOR HENSON ST
5	STRUCTURAL CONCRETE, CLASS AA	CY	1,200	\$ 1,000.00	\$ 1,200,000.00	CHANNEL IMPROVEMENTS AND CBC
6	RIPRAP NMDOT CLASS D	CY	488	\$ 240.00	\$ 117,120.00	EROSION PROTECTION

SubTotal:		\$ 1,549,571.44
Contingency 10.00%:		\$ 154,957.14
TOTAL:		\$ 1,704,528.58
Tax 5.4375%:		\$ 99,760.10
TOTAL with Tax:		\$ 1,804,288.68

The existing Cantrell Dam has no plans or documentation to certify its design. If the City of Truth or Consequences were to follow the option presented by BLM to purchase a Right-of-Way and maintain or reconstruct the dam, then the city will need to provide the missing certification. This would entail demolishing the existing dam and designing a new dam to meet OSE regulations. The estimated construction costs for this effort would be approximately \$4-6 million plus \$1.5-2 million for channel improvements required with or without the dam. The new dam design would need to be significantly larger than the existing dam in order to provide justification for the reconstruction costs. It should be noted that downstream channel improvements would still be required.

The purpose of breaching a dam according to section 19.25.12.11 and 19.25.12.20 of the New Mexico Administrative Code (NMAC) is to safely pass the 100-YR 24-HR discharge without attenuation. The abandonment of Cantrell Dam is a risk to the city and neighboring communities. The possibility of dam failure from sedimentation or bank instability would convey a much larger flows than a breached dam due to the larger volume of water being impounded by an aging embankment and outfall structures. In the event of a dam failure all the water stored behind the dam will be released instantaneously and overwhelm downstream flood protection infrastructure. Formally breaching the dam will prevent this type of incident for the City of Truth or Consequences and the Village of Williamsburg and save these communities from paying maintenance costs for structures providing minimal benefits. The approximate cost for a dam breach is \$0.5-1 million. This cost includes the earthwork to remove a portion of the dam embankment, bank stability for the newly exposed earth, and sediment control to replace the existing detention provided by the dam pool. Additionally, a sediment trap could be incorporated into the dam breach design to reduce transport of sediment downstream.



5. Summary and Recommendations

The purpose of this report is to determine the 100-YR, 24-hour storm event, review the functionality of Cantrell Dam, and propose a design to mitigate flooding in the areas downstream of Cantrell Dam in the City of Truth or Consequences and the Village of Williamsburg. Based on the hydraulic modeling results from HEC-RAS the main area of concern is Cook Street. This is the location during the large storm events in 2020 where the downstream flows from Cantrell Dam overtopped the channel and flooded portions of Truth or Consequences and Williamsburg. The proposed alternative consists of channel improvements and installation of a 12' x 5' CBC under Cook Street with roadway grading. This option conveys the 100-YR, 24-hour storm event flows for both the breached and existing detention scenarios. Additionally, this alternative reduces impacts to downstream properties by conveying flows to the existing channel southwest of Cook Street. Based on the analysis and per OSE rules and regulations, currently Cantrell Dam does not meet the criteria to be classified as a jurisdictional dam. The breach of Cantrell Dam would need to be in accordance with section 19.25.12.11 and 19.25.12.20 of the NMAC.

From the coordination with BLM, the maintenance or reconstruction would be the responsibility of the City of Truth or Consequences. Breaching the dam removes the cost associated with maintaining and the risk of a dam failure. An additional benefit of breaching Cantrell Dam is funding can go towards improving infrastructure in the communities of Truth or Consequences and Williamsburg rather than maintaining a dam outside of the community. In addition to breaching the existing dam embankment a sediment trap can be installed to provide sediment removal. Based on the conceptual cost estimate above, the combined cost for breaching the dam and improving the downstream infrastructure is approximately \$2-3 million. The other factor to consider is time. It can take 2-3 years for a design to go through the OSE process and get approval before construction can begin. The general maintenance of Cantrell Dam will not provide the same benefits to the downstream communities as the channel improvements described in the alternative in this report. The improvements needed for Cantrell Dam to justify its reconstruction would include the enlargement of the dam pool to provide a greater reduction of flows, new outfall structures, and new dam embankment. These improvements to Cantrell Dam itself would incur greater costs than the channel improvements and bring it under the jurisdiction of the OSE, which will incur more costs and responsibility for the City of Truth or Consequences.

6. References

Drainage Design Manual, New Mexico Department of Transportation, July 2018

Rules and Regulations Governing Dam Design, Construction, and Dam Safety, Office of the State Engineer, December 2010

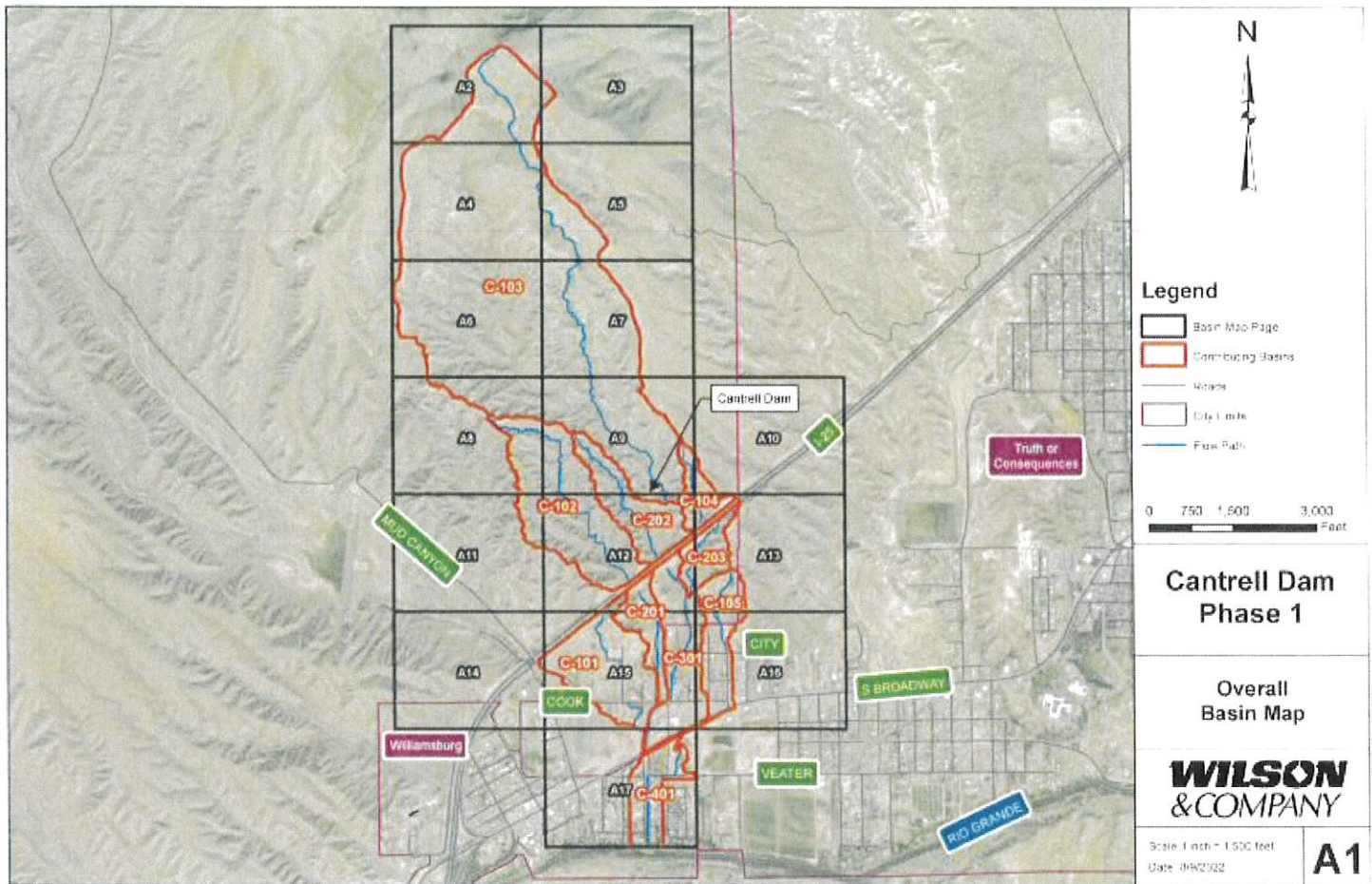
Appendix A Exhibits

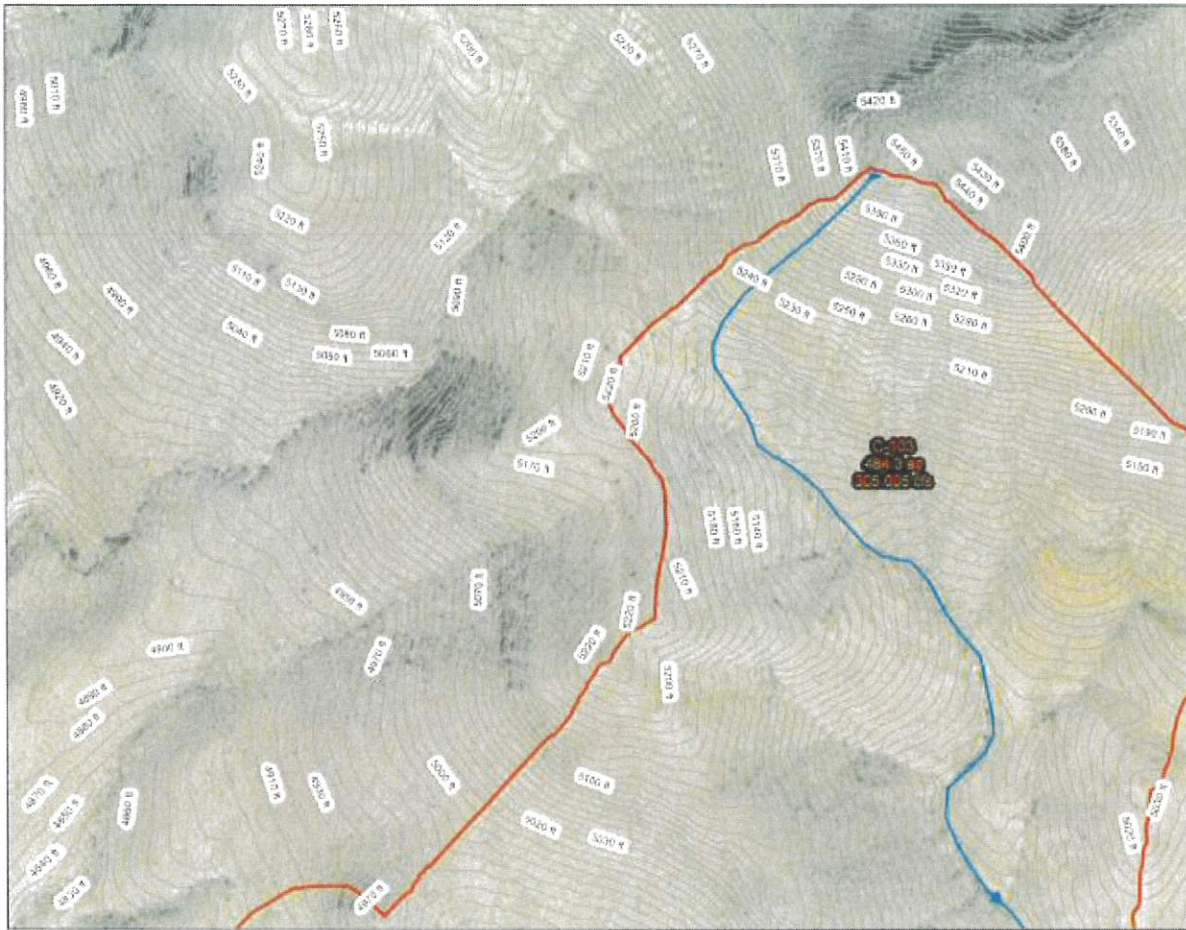
A1 Overall Basin Map

A2-A17 Basin Map

A18 Hydrologic Soil Group

A19 NRCS Land Use





Legend

- River
- ▭ Cantrell Dam
- ▭ Contributing Basins
- ➡ Flow Path
- Resch
- Contour

0 100 200 400 Feet

Cantrell Dam Phase 1

Basin Map

**WILSON
& COMPANY**

Scale: 1 inch = 200 feet
Date: 09/20/22

A2



N

Legend

- Road
- Cantrell Dam
- Contributing Basin
- Flow Path
- Stream
- To Be Constructed

0 100 200 400 Feet

**Cantrell Dam
Phase 1**

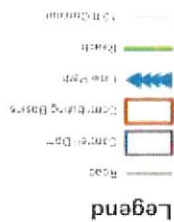
Basin Map

**WILSON
& COMPANY**

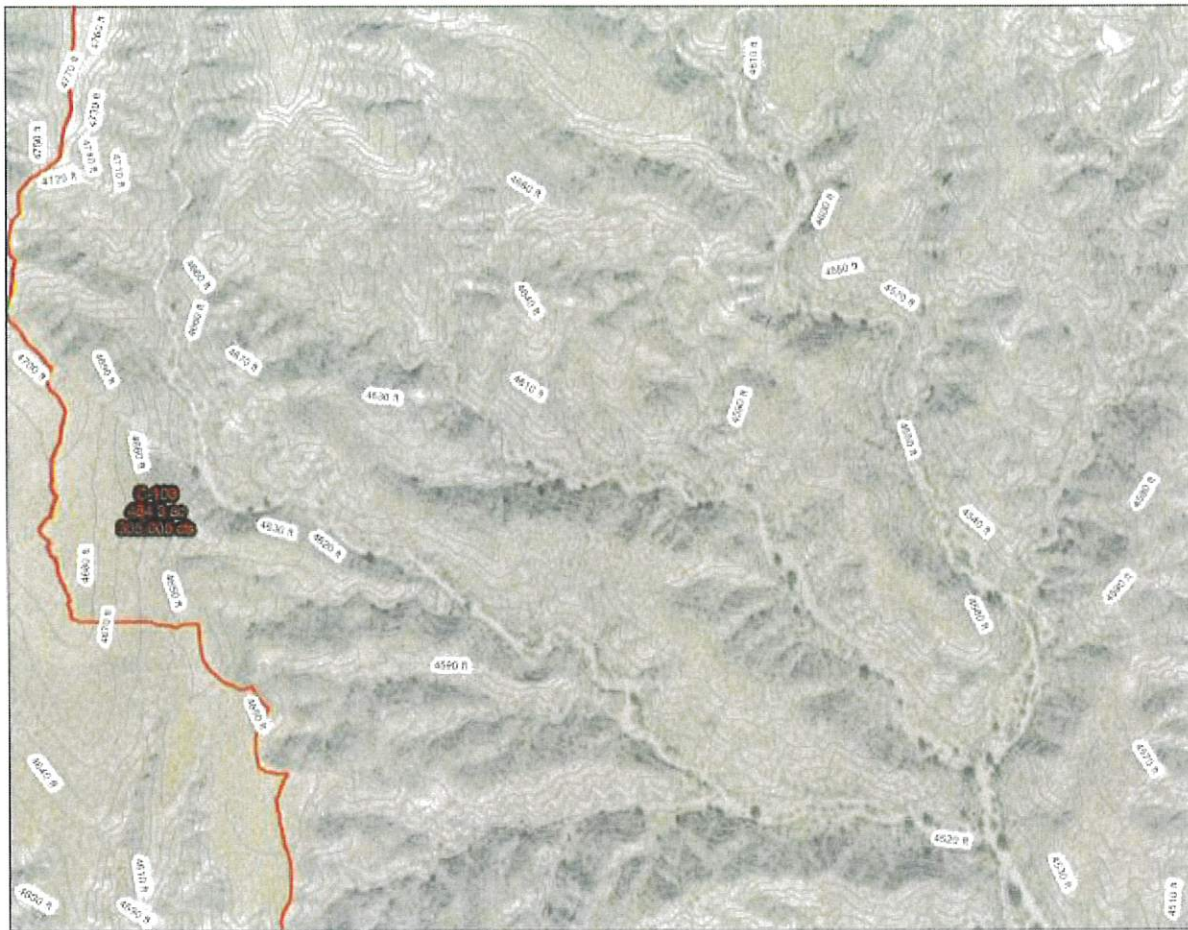
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Date: 06/02/02

A3







N

Legend

- Road
- Cantrell Dam
- Contributing Basins
- Flow Paths
- Reach
- 10 ft Contour

0 100 200 400 Feet

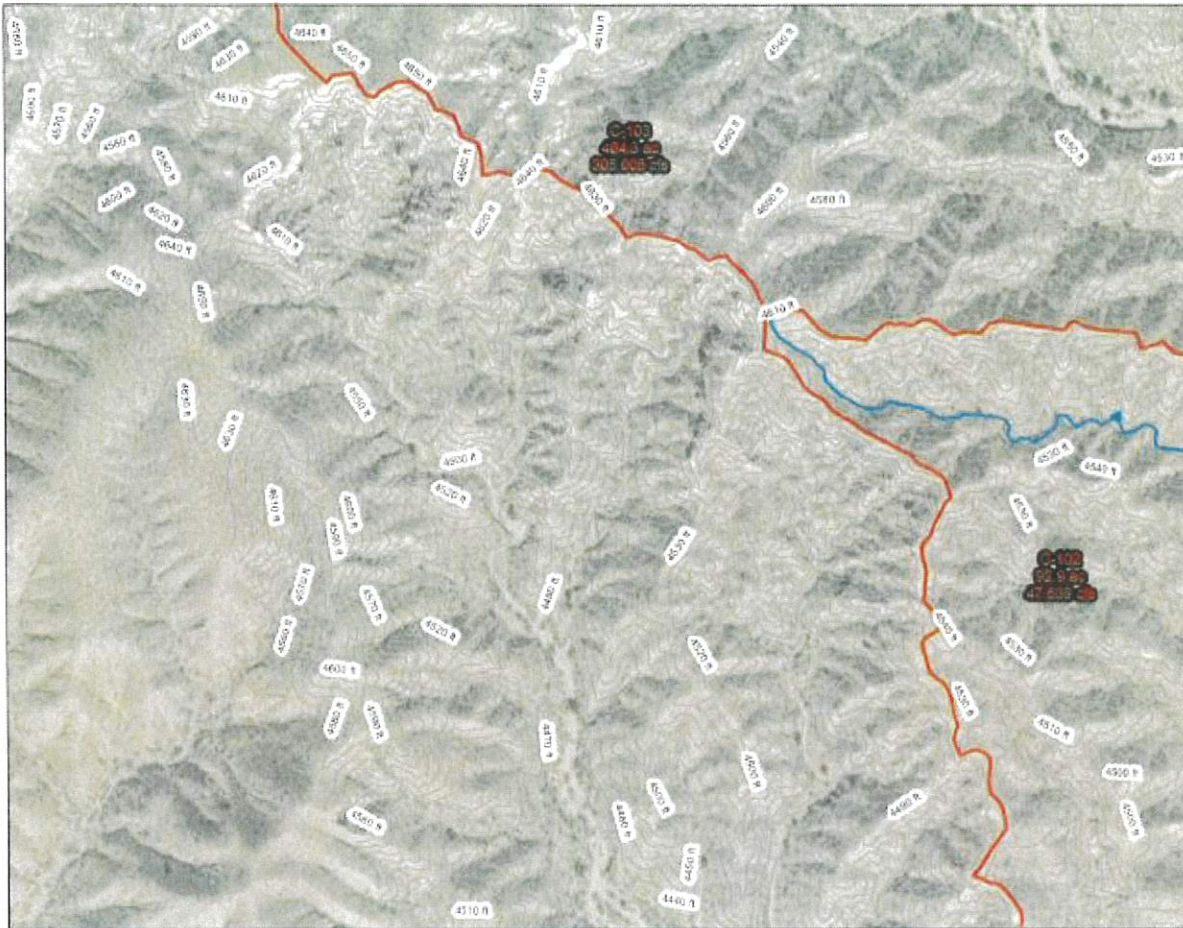
**Cantrell Dam
Phase 1**

Basin Map

**WILSON
& COMPANY**

Scale: 1 inch = 200 feet
Date: 5/9/2021

A6



N

Legend

- Road
- Cantrell Dam
- Contributing Divide
- Flow Path
- Road
- 10 ft Contour

0 100 200 400 Feet

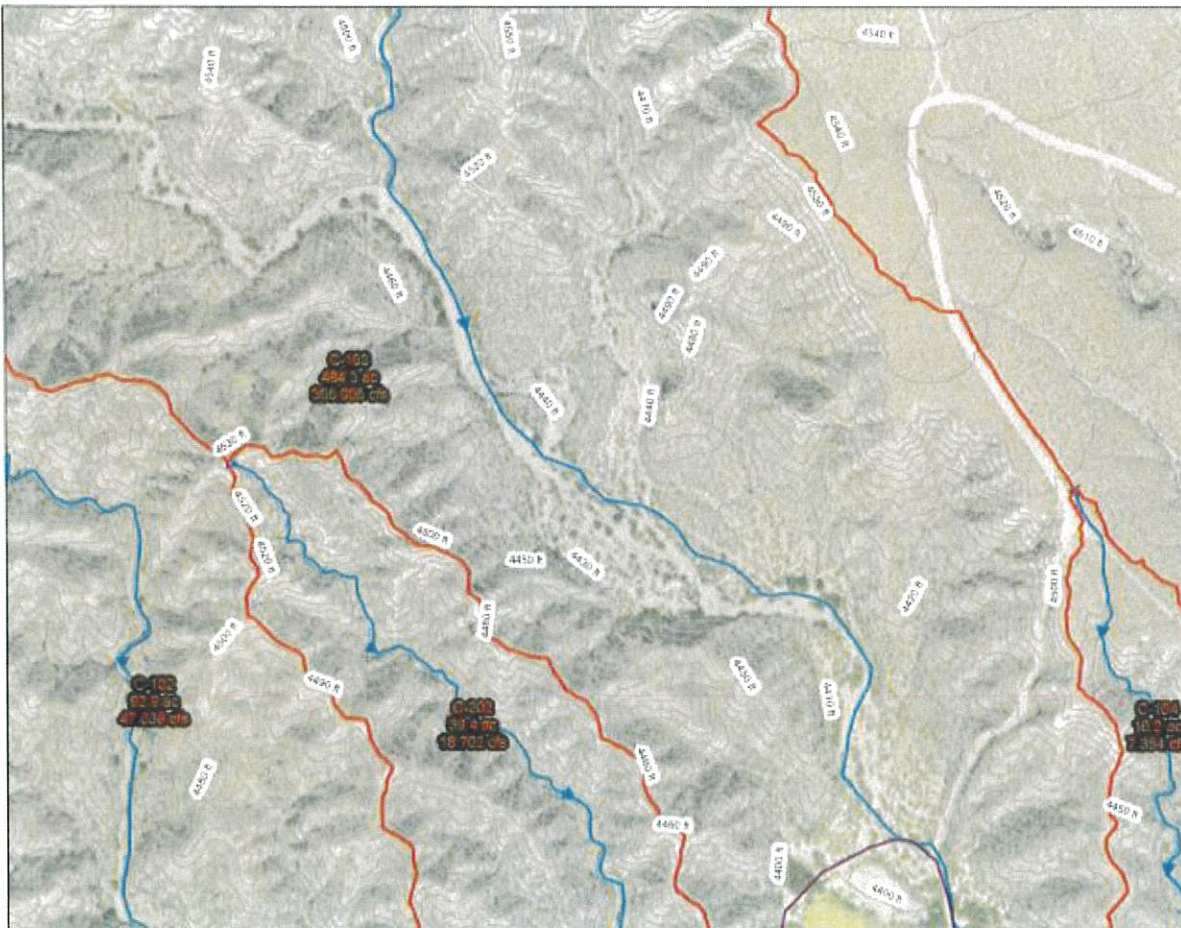
**Cantrell Dam
Phase 1**

Basin Map

**WILSON
& COMPANY**

Scale: 1 inch = 200 feet
Date: 8/5/2022

A8



Legend

- Road
- Control Dam
- Contributing Basins
- Flow Path
- Meander
- 10 ft Contour

0 100 200 400 Feet

Cantrell Dam Phase 1

Basin Map

**WILSON
& COMPANY**

Scale: 1 inch = 200 feet
Date: 6/26/02

A9



Legend

- Road
- Control Dam
- Contributing Basins
- Flow Path
- Height
- To H Control

0 100 200 400 Feet

Cantrell Dam Phase 1

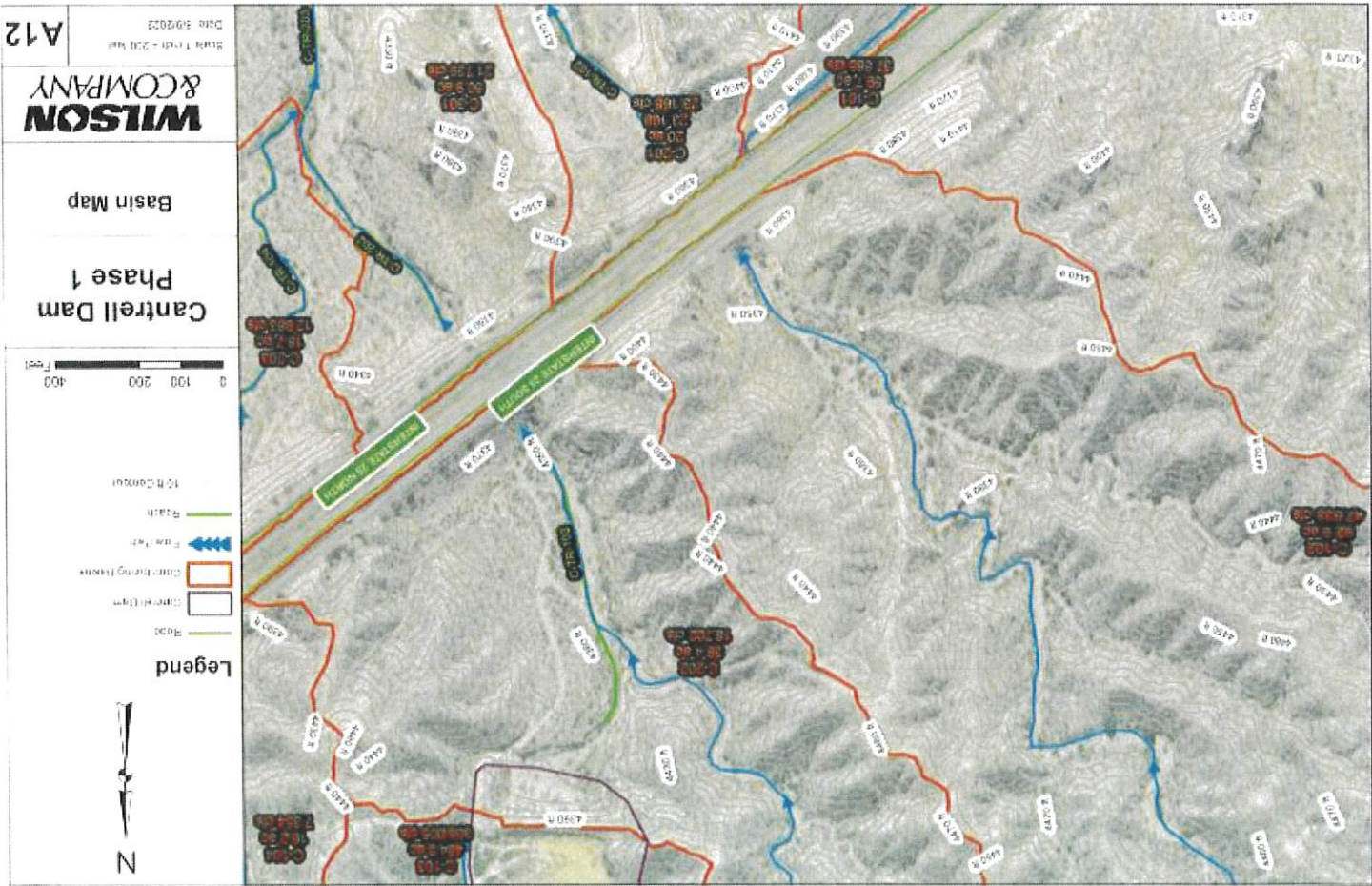
Basin Map

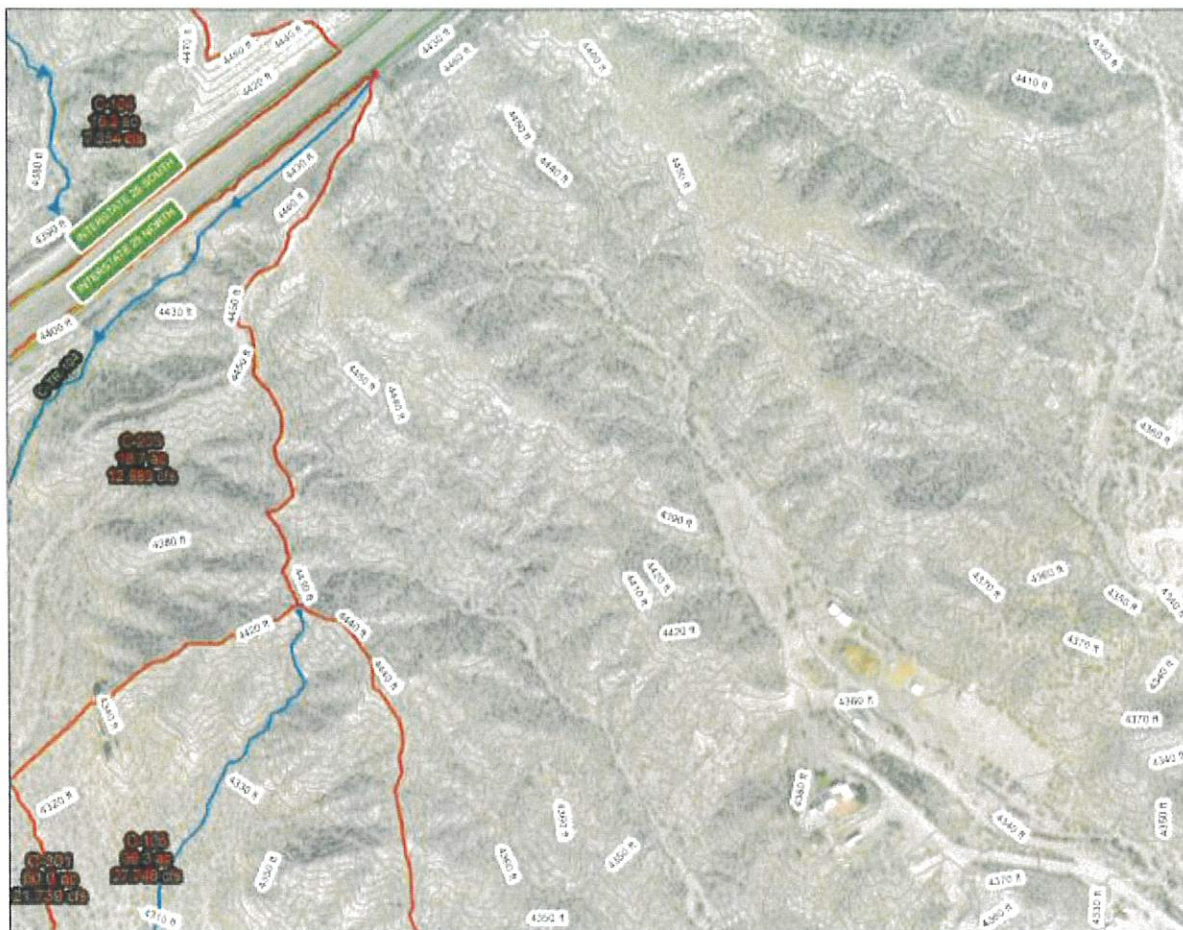
**WILSON
& COMPANY**

Scale: 1 inch = 200 feet
Date: 6/26/22

A10







Legend

- Road
- Control Dam
- Contributing Basin
- Flow Path
- Reservoir
- 19.4 Contour

0 100 200 400
Foot

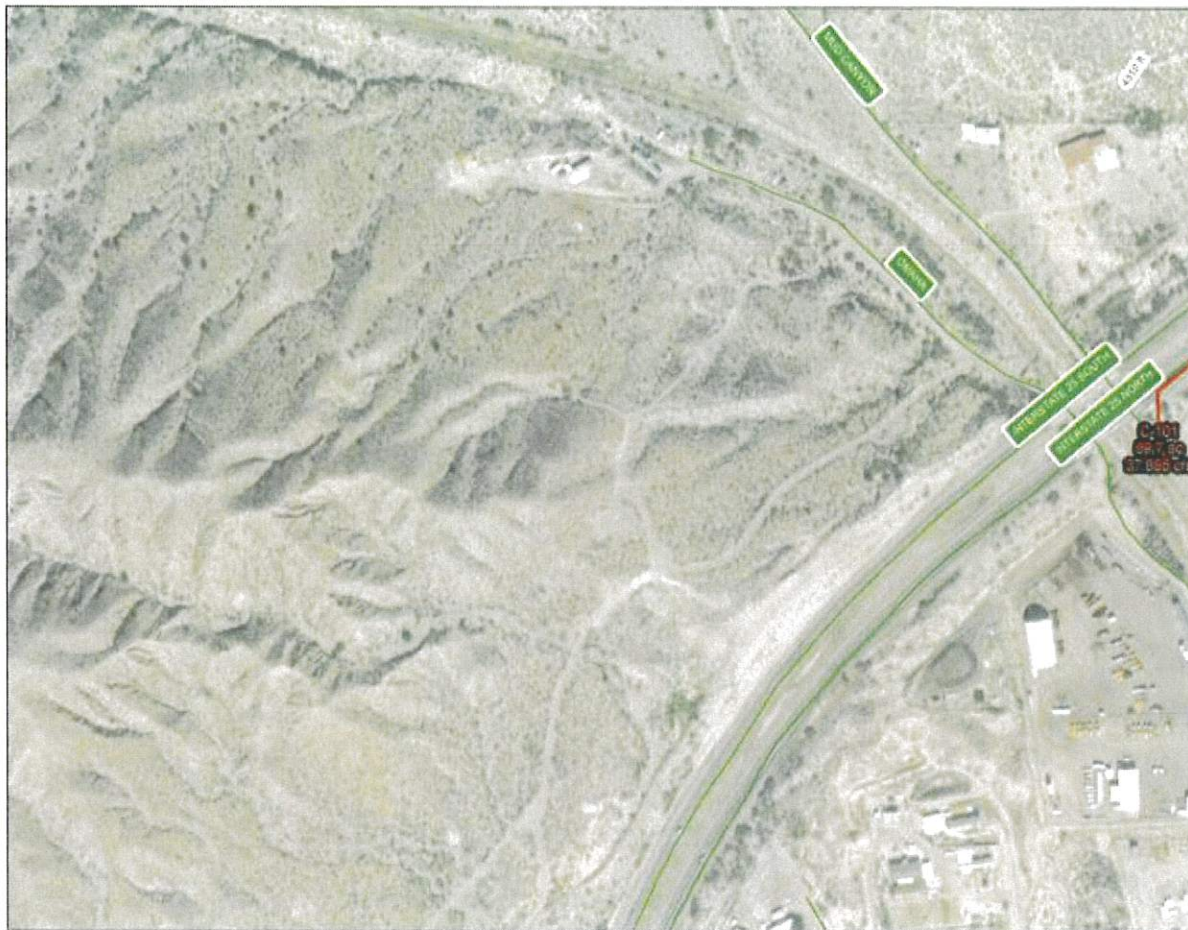
Cantrell Dam Phase 1

Basin Map

**WILSON
& COMPANY**

Scale: 1 inch = 200 feet
Date: 5/9/2022

A13



Legend

- Road
- Cantrell Dam
- Contributing Waters
- Flow Path
- Reach
- 10 ft Contour

0 100 200 400 Feet

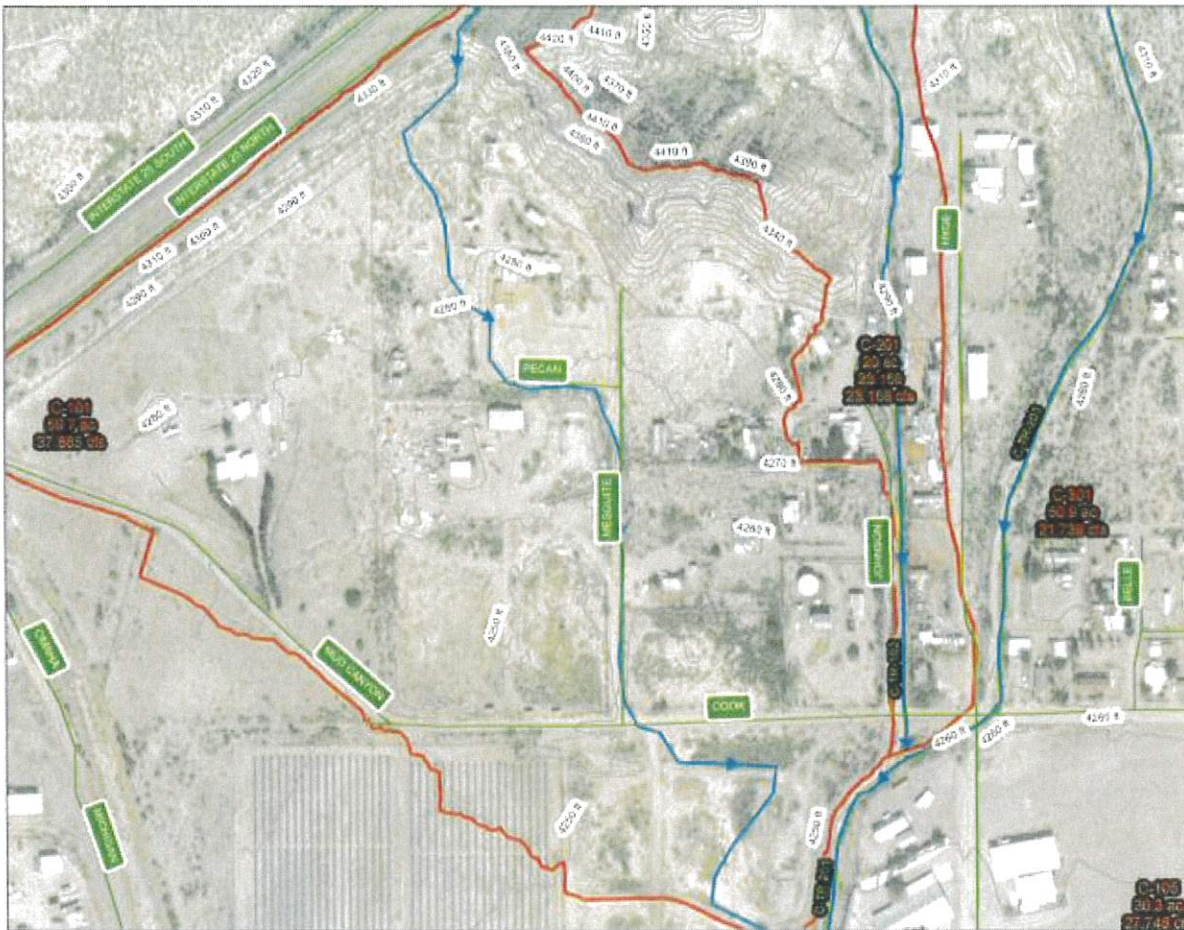
Cantrell Dam Phase 1

Basin Map

**WILSON
& COMPANY**

Scale: 1 inch = 200 feet
Date: 5/9/2022

A14



N

Legend

- River
- Cantrell Dam
- Dam Filling Basins
- Flow Path
- Reach
- 10 ft Contour

0 100 200 400 Feet

**Cantrell Dam
Phase 1**

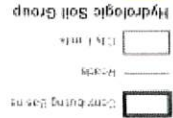
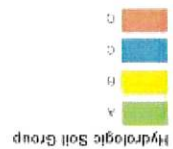
Basin Map

**WILSON
& COMPANY**

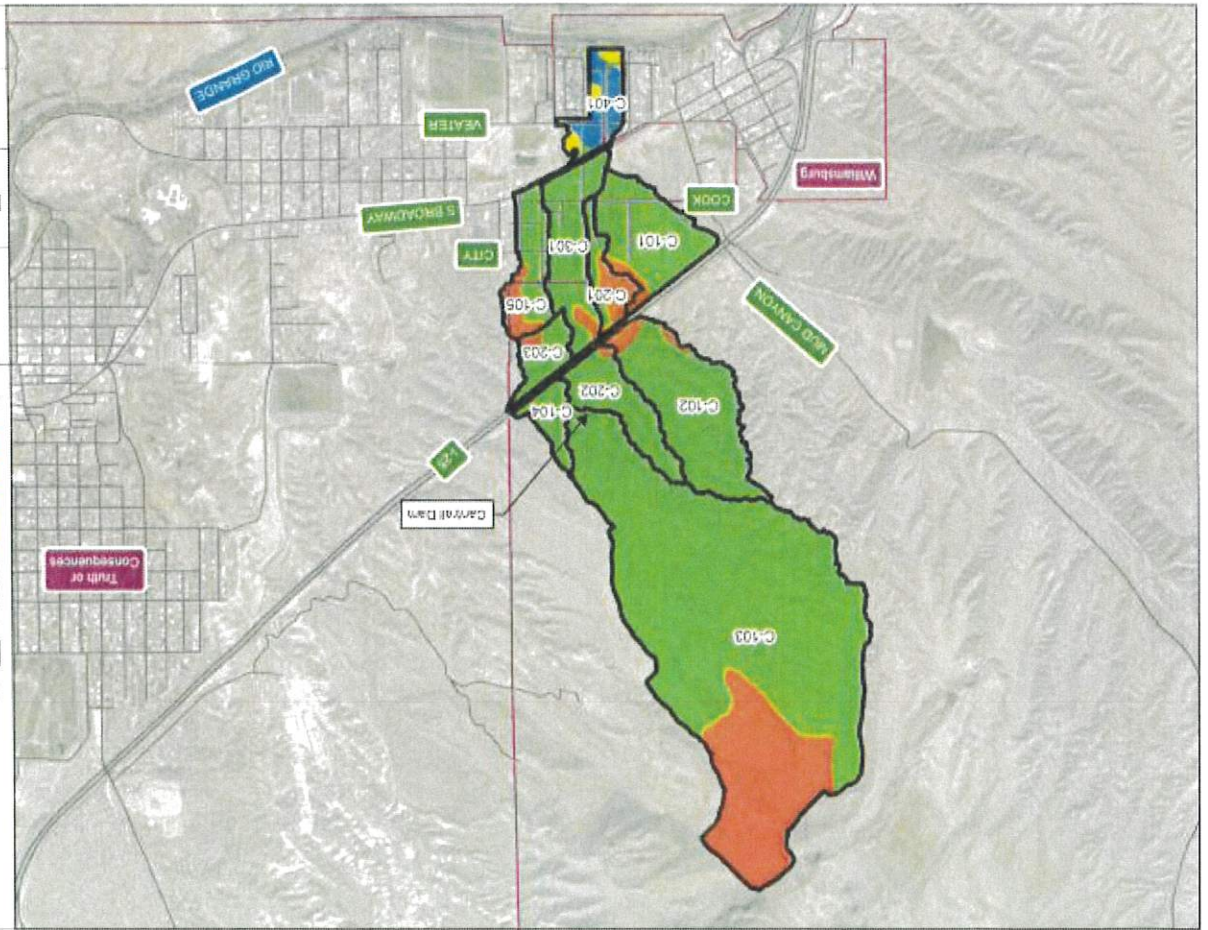
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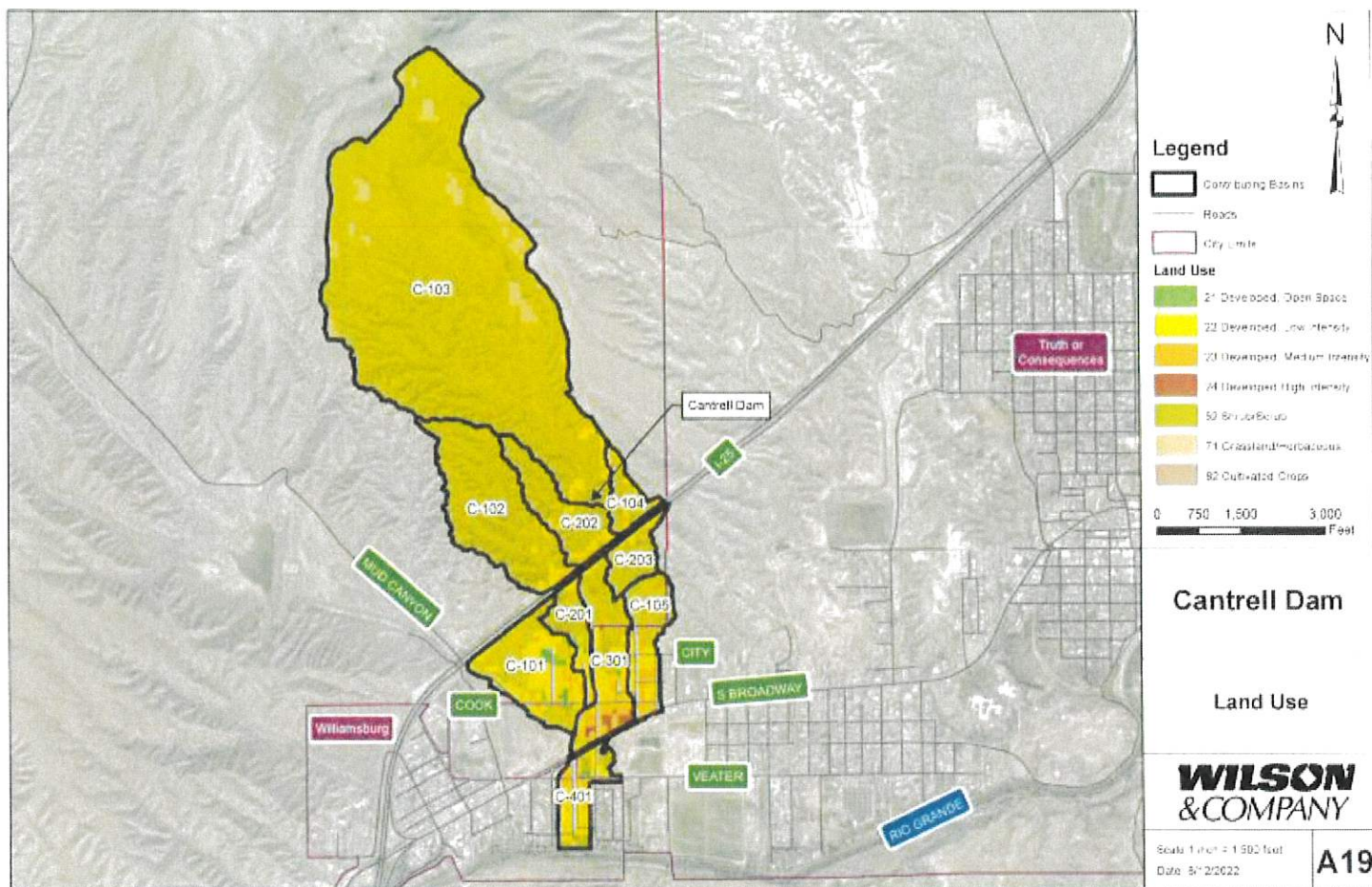
A15





Legend





Appendix B Hydrology

B1-B4 Rainfall Information

B5-B6 HEC-HMS Input Parameters

B7 HEC-HMS Basin Map

B8 HEC-HMS Results



NOAA Atlas 14, Volume 1, Version 5
 Location name: Truth Or Consequences, New Mexico, USA*
 Latitude: 33.1312°, Longitude: -107.2866°
 Elevation: 4387.35 ft**
 * source: ESRI Maps
 ** source: USGS



POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Matiana, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tys Parzybok, John Yarchocan

NOAA, National Weather Service, Silver Spring, Maryland

[PF tabular](#) | [PF graphical](#) | [Maps & aeriels](#)

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches) ¹										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.209 (0.182-0.230)	0.271 (0.237-0.309)	0.363 (0.317-0.414)	0.434 (0.379-0.494)	0.530 (0.463-0.606)	0.607 (0.529-0.696)	0.687 (0.598-0.793)	0.770 (0.670-0.895)	0.884 (0.767-1.04)	0.976 (0.846-1.16)
10-min	0.318 (0.276-0.363)	0.413 (0.361-0.470)	0.553 (0.483-0.631)	0.661 (0.577-0.753)	0.807 (0.705-0.923)	0.924 (0.806-1.06)	1.05 (0.910-1.21)	1.17 (1.02-1.36)	1.35 (1.17-1.58)	1.49 (1.29-1.76)
15-min	0.395 (0.343-0.451)	0.512 (0.448-0.583)	0.685 (0.599-0.782)	0.819 (0.716-0.934)	1.00 (0.873-1.15)	1.15 (0.999-1.31)	1.30 (1.13-1.50)	1.45 (1.26-1.69)	1.67 (1.45-1.96)	1.84 (1.60-2.18)
30-min	0.532 (0.462-0.607)	0.689 (0.603-0.785)	0.923 (0.807-1.05)	1.10 (0.964-1.26)	1.35 (1.18-1.54)	1.54 (1.35-1.77)	1.75 (1.52-2.02)	1.96 (1.70-2.27)	2.25 (1.95-2.64)	2.48 (2.15-2.93)
60-min	0.659 (0.572-0.751)	0.853 (0.746-0.972)	1.14 (0.998-1.30)	1.37 (1.19-1.56)	1.67 (1.46-1.91)	1.91 (1.67-2.19)	2.16 (1.88-2.49)	2.42 (2.11-2.82)	2.78 (2.41-3.26)	3.07 (2.66-3.63)
2-hr	0.746 (0.656-0.856)	0.960 (0.845-1.10)	1.28 (1.13-1.46)	1.54 (1.35-1.75)	1.91 (1.65-2.17)	2.20 (1.90-2.50)	2.53 (2.15-2.87)	2.87 (2.43-3.26)	3.37 (2.81-3.82)	3.78 (3.12-4.29)
3-hr	0.791 (0.700-0.902)	1.01 (0.892-1.15)	1.33 (1.17-1.52)	1.59 (1.40-1.81)	1.96 (1.70-2.22)	2.26 (1.95-2.56)	2.59 (2.21-2.93)	2.94 (2.49-3.34)	3.44 (2.88-3.91)	3.87 (3.20-4.40)
6-hr	0.899 (0.801-1.02)	1.14 (1.01-1.29)	1.48 (1.31-1.67)	1.75 (1.55-1.97)	2.13 (1.87-2.40)	2.44 (2.12-2.74)	2.77 (2.39-3.11)	3.12 (2.67-3.51)	3.62 (3.06-4.08)	4.04 (3.38-4.57)
12-hr	0.998 (0.890-1.12)	1.26 (1.13-1.42)	1.62 (1.44-1.82)	1.90 (1.69-2.13)	2.29 (2.02-2.58)	2.60 (2.29-2.90)	2.93 (2.55-3.28)	3.28 (2.83-3.66)	3.76 (3.21-4.22)	4.16 (3.52-4.68)
24-hr	1.22 (1.08-1.38)	1.53 (1.36-1.73)	1.92 (1.70-2.16)	2.24 (1.96-2.52)	2.69 (2.37-3.04)	3.07 (2.68-3.48)	3.49 (3.02-3.97)	3.95 (3.38-4.53)	4.63 (3.89-5.38)	5.21 (4.32-6.11)
2-day	1.31 (1.16-1.49)	1.65 (1.46-1.87)	2.07 (1.83-2.33)	2.41 (2.13-2.72)	2.90 (2.55-3.29)	3.31 (2.88-3.77)	3.77 (3.24-4.32)	4.27 (3.62-4.95)	5.01 (4.17-5.89)	5.65 (4.63-6.74)
3-day	1.42 (1.26-1.61)	1.78 (1.59-2.01)	2.22 (1.98-2.50)	2.59 (2.30-2.91)	3.12 (2.75-3.52)	3.56 (3.11-4.05)	4.06 (3.50-4.65)	4.61 (3.92-5.34)	5.44 (4.53-6.38)	6.14 (5.03-7.33)
4-day	1.53 (1.37-1.72)	1.91 (1.71-2.15)	2.38 (2.13-2.67)	2.77 (2.47-3.11)	3.34 (2.95-3.76)	3.82 (3.34-4.33)	4.36 (3.76-4.99)	4.95 (4.21-5.73)	5.86 (4.89-6.88)	6.63 (5.44-7.92)
7-day	1.77 (1.59-1.97)	2.21 (1.99-2.46)	2.73 (2.47-3.04)	3.16 (2.84-3.51)	3.77 (3.37-4.20)	4.28 (3.79-4.79)	4.84 (4.23-5.46)	5.45 (4.71-6.22)	6.35 (5.39-7.37)	7.12 (5.94-8.38)
10-day	1.96 (1.76-2.18)	2.45 (2.21-2.73)	3.03 (2.73-3.38)	3.51 (3.15-3.91)	4.21 (3.75-4.71)	4.79 (4.22-5.39)	5.43 (4.73-6.16)	6.14 (5.28-7.05)	7.19 (6.07-8.40)	8.08 (6.71-9.58)
20-day	2.50 (2.26-2.77)	3.12 (2.83-3.45)	3.81 (3.44-4.21)	4.35 (3.93-4.81)	5.11 (4.59-5.68)	5.73 (5.11-6.39)	6.40 (5.65-7.19)	7.10 (6.20-8.06)	8.11 (6.98-9.34)	8.95 (7.60-10.4)
30-day	2.93 (2.66-3.24)	3.65 (3.31-4.02)	4.39 (3.99-4.84)	4.98 (4.51-5.49)	5.80 (5.23-6.41)	6.43 (5.77-7.15)	7.11 (6.32-7.96)	7.82 (6.89-8.82)	8.81 (7.65-10.1)	9.61 (8.26-11.1)
45-day	3.51 (3.19-3.86)	4.35 (3.96-4.79)	5.20 (4.73-5.72)	5.86 (5.32-6.44)	6.76 (6.10-7.46)	7.46 (6.70-8.27)	8.18 (7.30-9.13)	8.93 (7.90-10.0)	9.96 (8.71-11.3)	10.8 (9.33-12.4)
60-day	4.08 (3.70-4.50)	5.06 (4.59-5.57)	6.04 (5.47-6.64)	6.80 (6.15-7.47)	7.82 (7.05-8.62)	8.61 (7.73-9.52)	9.43 (8.40-10.5)	10.3 (9.07-11.5)	11.4 (9.97-13.0)	12.3 (10.7-14.2)

¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

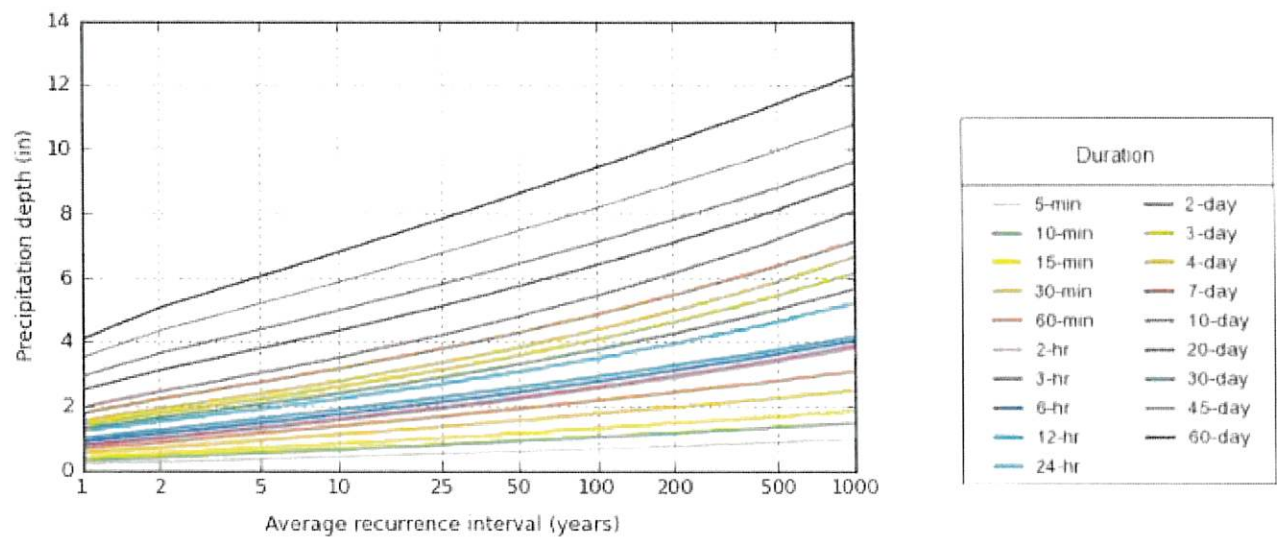
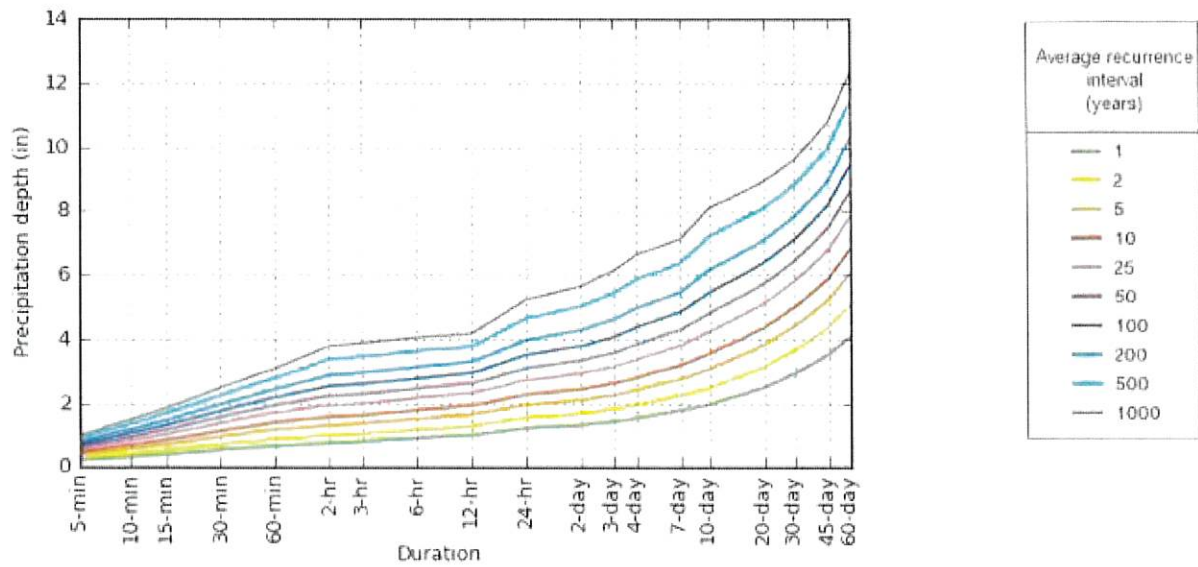
Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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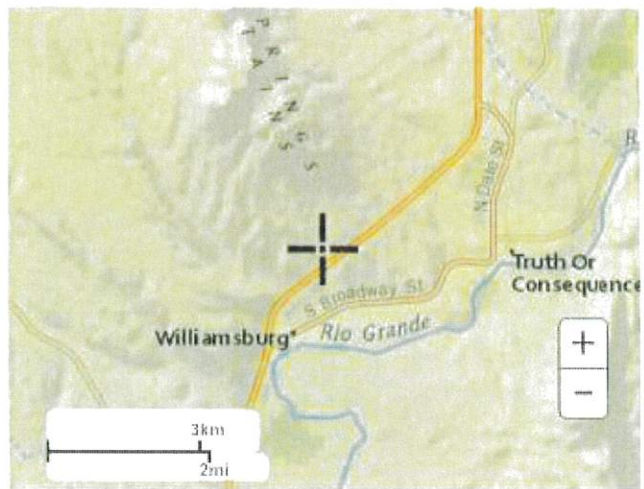
PF graphical

PDS-based depth-duration-frequency (DDF) curves
Latitude: 33.1312°, Longitude: -107.2866°



Maps & aeriels

Small scale terrain



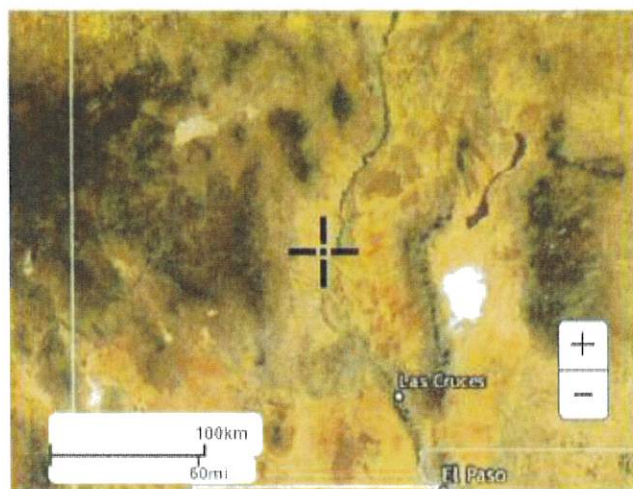
Large scale terrain



Large scale map



Large scale aerial



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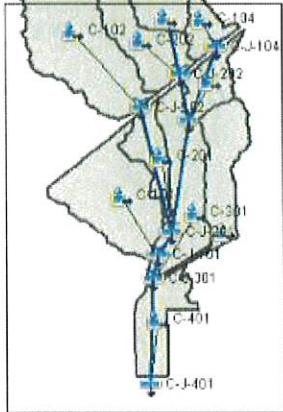
Cantrell Dam

Location:	Truth or Consequences, New Mexico
Elevation:	4440'
Event:	50 and 100 Year Event Peak Information
Method:	NMDCOT SOG Simple Peak Flow

Rainfall Information										
NOAA Frequency Storm (in)										
Storm Duration:	5-Minute	15-Minute	30-Minute	1-Hour	2-Hour	3-Hour	6-Hour	12-Hour	24-Hour	30-Hour
50 year	0.607	0.924	1.180	1.510	1.810	2.080	2.350	2.440	2.600	3.070
100 year	0.687	1.050	1.300	1.760	2.100	2.530	2.800	2.770	2.990	3.480

Reach	Length	Area	Manhole No.	Side Slope	Side Slope	Bottom	Bottom
C-TR-103	10.33	0.032	0.036	30	3	4378	4343
C-TR-104	12.87	0.040	0.036	20	2	4385	4313
C-TR-202	6.17	0.087	0.035	80	1	4387	4313
C-TR-102	21.38	0.030	0.035	13	1	4390	4293
C-TR-203	21.82	0.020	0.035	150	2	4373	4260
C-TR-201	2.86	0.018	0.035	45	2	4263	4244
C-TR-101	29.0	0.014	0.035	10	5	4244	4240
C-TR-301	19.80	0.012	0.035	10	3	4238	4220

HEC-HMS 100 Year Basin Map



Continued Summary

Location:	Tribal or Geographical Area: New Mexico									
Division:	C-87									
Sheet:	60 yrs 100 Year Event Reach Interceptor									
Method:	HMOC - 608 Curtiland Peak Flow									
Rainfall Information										
NOAA Rainfall Depth (in)										
Storm Duration	15-Minute	10-Minute	15-Minute	30-Minute	1-Hour	2-Hour	3-Hour	4-Hour	12-Hour	24-Hour
60-year	0.827	0.924	1.150	1.548	1.910	2.200	2.365	2.440	2.880	2.870
100-year	0.897	1.090	1.300	1.760	2.160	2.530	2.600	2.720	3.030	2.490

Dam Name	Dam Type	Dam Height (ft)	Dam Break						100 Year Storm					
			Flow (cfs)	Volume (cu ft)	Time (hr)	Peak (cfs)	Volume (cu ft)	Time (hr)	Flow (cfs)	Volume (cu ft)	Time (hr)	Peak (cfs)	Volume (cu ft)	Time (hr)
C-101	404.28	0.78	207.5	08:40	41.2	431.5	08:35	55.4	41.8	07:10	41.1	263.5	07:00	55.4
C-102	731.07	1.14	22.1	08:30	4.2	47.8	08:30	5.8	62.1	08:30	4.2	47.8	08:30	5.8
C-103	82.88	0.18	4.8	08:20	0.8	7.4	08:20	8.8	4.8	06:25	0.8	7.4	06:20	8.8
C-104	76.18	0.33	300.3	08:40	37.7	388.4	08:40	50.7	120.2	07:05	37.6	328.5	07:00	50.6
C-105	871.42	1.35	228.5	08:35	30.1	321.4	08:35	40.4	108.0	07:05	30.1	92.5	06:55	40.4
C-106	223.85	0.82	228.1	08:35	31.7	338.5	08:35	42.7	119.5	07:10	31.7	203.1	07:00	42.8
C-107	588.52	0.87	334.7	08:40	49.5	474.2	08:40	57.3	154.1	07:10	45.4	207.0	07:00	57.3
C-108	810.30	1.29	333.4	08:40	49.4	502.0	08:40	68	168.4	07:00	40.2	207.0	07:00	64.5
C-109	845.64	1.32	333.4	08:40	49.4	502.0	08:40	68	168.4	07:00	40.2	207.0	07:00	64.5
C-110	731.07	1.14	228.1	08:35	31.7	338.5	08:35	42.7	119.5	07:10	31.7	203.1	07:00	42.8
C-111	82.88	0.18	32.1	08:30	4.2	47.8	08:30	5.8	62.1	08:30	4.2	47.8	08:30	5.8
C-112	404.28	0.78	210.4	08:35	29.3	388.0	08:35	38.2	106.0	07:05	28.5	186.4	06:55	38.2
C-113	10.10	0.03	4.8	08:30	0.8	7.4	08:30	8.8	4.8	06:25	0.8	7.4	06:20	8.8
C-114	671.42	1.05	281.5	08:40	37.7	348.7	08:40	50.7	131.2	07:10	37.6	228.1	07:00	50.6
C-115	228.58	0.82	227.3	08:35	30.1	321.4	08:35	40.4	108.0	07:10	30.1	92.5	06:55	40.4
C-116	588.52	0.87	334.7	08:40	49.5	474.2	08:40	57.3	154.1	07:10	45.4	207.0	07:00	57.3
C-117	810.30	1.29	333.4	08:40	49.4	502.0	08:40	68	168.4	07:00	40.2	207.0	07:00	64.5
C-118	845.64	1.32	333.4	08:40	49.4	502.0	08:40	68	168.4	07:00	40.2	207.0	07:00	64.5
C-119	731.07	1.14	228.1	08:35	31.7	338.5	08:35	42.7	119.5	07:10	31.7	203.1	07:00	42.8
C-120	82.88	0.18	32.1	08:30	4.2	47.8	08:30	5.8	62.1	08:30	4.2	47.8	08:30	5.8
C-121	434.28	0.78	213.8	08:35	28.0	380.0	08:35	36.3	110.2	06:50	28.0	303.0	06:35	36.3
C-122	10.10	0.03	4.3	08:30	0.8	7.4	08:30	8.8	4.8	06:25	0.8	7.4	06:20	8.8
C-123	36.28	0.08	19.0	08:25	3.1	27.7	08:25	2.9	19.0	08:25	2.1	27.7	08:25	2.9
C-124	20.08	0.08	17.0	08:25	2.7	23.7	08:25	2.2	17.0	08:25	1.7	23.2	08:25	2.2
C-125	35.08	0.08	12.0	08:25	1.6	18.7	08:25	2.1	12.0	08:25	1.5	19.7	08:25	2.1
C-126	18.08	0.03	8.0	08:25	1.0	13.0	08:25	1.4	8.0	08:25	1.0	13.0	08:25	1.4
C-127	95.21	0.03	14.1	08:35	2.1	21.7	08:35	3.3	14.1	08:35	2.1	21.7	08:35	3.3
C-128	27.4	0.04	8.0	08:25	2.9	28.7	08:25	3.7	27.0	08:25	2.3	29.7	08:25	3.7

Appendix C Hydraulics

C1 Two Standpipe Dam Top of Riser Flows

C2 Two Standpipe Dam Principal Spillway Culvert Flow

C3 Two Standpipe Dam Riser Orifice Flow

C4 Two Standpipe Auxiliary Spillway Flow for Trapezoidal Spillway

C4 Two Standpipe Summary of Flows

C5 Two Standpipe Stage Storage

July 2022

$$U = C_p \ln \frac{1}{h} \quad \left(\frac{1}{h} = \frac{1}{2\pi} \ln \frac{1}{2\pi} \right)$$

File 2032

Mean Value	11
Mean Length	11
Mean Ultrasound	2.11
Mean Area	3.14 sq ft
Q1	2.0
Q3	3.00
Q4	3.22

Wavelength (nm)	Case 2: Water 2		Used α (rad)
	Water Flow Q (l/s)	Diffuse Flow Q (l/s)	
4282	0.0	0.6	0.0
4383	0.0	0.9	0.0
4484	0.0	0.9	0.0
4585	0.0	0.6	0.0
4686	0.0	0.0	0.0
4787	0.0	0.0	0.0
4888	0.0	0.0	0.0
4989	0.0	0.0	0.0
5090	0.0	0.0	0.0
5191	0.0	0.0	0.0
5292	0.0	0.0	0.0
5393	0.0	0.0	0.0
5494	0.0	0.0	0.0
5595	0.0	0.0	0.0
5696	0.0	0.0	0.0
5797	0.0	0.0	0.0
5898	0.0	0.0	0.0
5999	0.0	0.0	0.0
6100	0.0	0.0	0.0
6201	0.0	0.0	0.0
6302	0.0	0.0	0.0
6403	0.0	0.0	0.0
6504	0.0	0.0	0.0
6605	0.0	0.0	0.0
6706	0.0	0.0	0.0
6807	0.0	0.0	0.0
6908	0.0	0.0	0.0
7009	0.0	0.0	0.0
7110	0.0	0.0	0.0
7211	0.0	0.0	0.0
7312	0.0	0.0	0.0
7413	0.0	0.0	0.0
7514	0.0	0.0	0.0
7615	0.0	0.0	0.0
7716	0.0	0.0	0.0
7817	0.0	0.0	0.0
7918	0.0	0.0	0.0
8019	0.0	0.0	0.0
8120	0.0	0.0	0.0
8221	0.0	0.0	0.0
8322	0.0	0.0	0.0
8423	0.0	0.0	0.0
8524	0.0	0.0	0.0
8625	0.0	0.0	0.0
8726	0.0	0.0	0.0
8827	0.0	0.0	0.0
8928	0.0	0.0	0.0
9029	0.0	0.0	0.0
9130	0.0	0.0	0.0
9231	0.0	0.0	0.0
9332	0.0	0.0	0.0
9433	0.0	0.0	0.0
9534	0.0	0.0	0.0
9635	0.0	0.0	0.0
9736	0.0	0.0	0.0
9837	0.0	0.0	0.0
9938	0.0	0.0	0.0
10039	0.0	0.0	0.0

Figure 2031

Filter Width	0
Filter Length	0
Filter Delay	2.1
Reset Area	3.14 sq in
Gas	2.0
Co	4.40
c	82.2 mm

WFFL (h)	Vol. Flow Q (m ³ /s)	Outlet Temp Q (°C)	Used Q (m ³ /s)
3002	0.0	0.0	0.0
3003	0.0	0.0	0.0
3004	0.0	0.0	0.0
3005	0.0	0.0	0.0
3006	0.0	0.0	0.0
3007	0.0	0.0	0.0
3008	0.0	0.0	0.0
3009	0.0	0.0	0.0
3010	0.0	0.0	0.0
3011	0.0	0.0	0.0
3012	0.0	0.0	0.0
3013	0.0	0.0	0.0
3014	0.0	0.0	0.0
3015	0.0	0.0	0.0
3016	0.0	0.0	0.0
3017	0.0	0.0	0.0
3018	0.0	0.0	0.0
3019	0.0	0.0	0.0
3020	0.0	0.0	0.0
3021	0.0	0.0	0.0
3022	0.0	0.0	0.0
3023	0.0	0.0	0.0
3024	0.0	0.0	0.0
3025	0.0	0.0	0.0
3026	0.0	0.0	0.0
3027	0.0	0.0	0.0
3028	0.0	0.0	0.0
3029	0.0	0.0	0.0
3030	0.0	0.0	0.0
3031	0.0	0.0	0.0
3032	0.0	0.0	0.0
3033	0.0	0.0	0.0
3034	0.0	0.0	0.0
3035	0.0	0.0	0.0
3036	0.0	0.0	0.0
3037	0.0	0.0	0.0
3038	0.0	0.0	0.0
3039	0.0	0.0	0.0
3040	0.0	0.0	0.0
3041	0.0	0.0	0.0
3042	0.0	0.0	0.0
3043	0.0	0.0	0.0
3044	0.0	0.0	0.0
3045	0.0	0.0	0.0
3046	0.0	0.0	0.0
3047	0.0	0.0	0.0
3048	0.0	0.0	0.0
3049	0.0	0.0	0.0
3050	0.0	0.0	0.0
3051	0.0	0.0	0.0
3052	0.0	0.0	0.0
3053	0.0	0.0	0.0
3054	0.0	0.0	0.0
3055	0.0	0.0	0.0
3056	0.0	0.0	0.0
3057	0.0	0.0	0.0
3058	0.0	0.0	0.0
3059	0.0	0.0	0.0
3060	0.0	0.0	0.0
3061	0.0	0.0	0.0
3062	0.0	0.0	0.0
3063	0.0	0.0	0.0
3064	0.0	0.0	0.0
3065	0.0	0.0	0.0
3066	0.0	0.0	0.0
3067	0.0	0.0	0.0
3068	0.0	0.0	0.0
3069	0.0	0.0	0.0
3070	0.0	0.0	0.0
3071	0.0	0.0	0.0
3072	0.0	0.0	0.0
3073	0.0	0.0	0.0
3074	0.0	0.0	0.0
3075	0.0	0.0	0.0
3076	0.0	0.0	0.0
3077	0.0	0.0	0.0
3078	0.0	0.0	0.0
3079	0.0	0.0	0.0
3080	0.0	0.0	0.0
3081	0.0	0.0	0.0
3082	0.0	0.0	0.0
3083	0.0	0.0	0.0
3084	0.0	0.0	0.0
3085	0.0	0.0	0.0
3086	0.0	0.0	0.0
3087	0.0	0.0	0.0
3088	0.0	0.0	0.0
3089	0.0	0.0	0.0
3090	0.0	0.0	0.0
3091	0.0	0.0	0.0
3092	0.0	0.0	0.0
3093	0.0	0.0	0.0
3094	0.0	0.0	0.0
3095	0.0	0.0	0.0
3096	0.0	0.0	0.0
3097	0.0	0.0	0.0
3098	0.0	0.0	0.0
3099	0.0	0.0	0.0
3100	0.0	0.0	0.0
3101	0.0	0.0	0.0
3102	0.0	0.0	0.0
3103	0.0	0.0	0.0
3104	0.0	0.0	0.0
3105	0.0	0.0	0.0
3106	0.0	0.0	0.0
3107	0.0	0.0	0.0

[illegible]

Primary Principle Spillway

July 2022

Project: Cantrell Dam
 Project No: 22-600-147-00
 Calculation: Culvert Flow

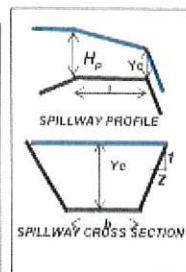
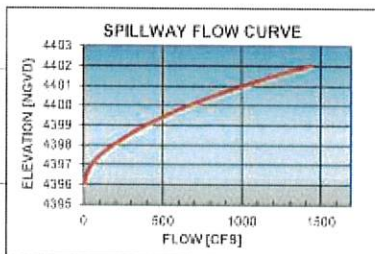
Primary Principle Spillway			
Invert Elev	4380.71	ft	
Pipe Size	2	ft	
Pipe Area	3.1	ft^2	
	21221 CMP flow from Culvertmaster	Total Q	
WSEL (ft)	Q (cfs)	Q (cfs)	
4382	11.90	12	
4383	32.03	32	
4384	51.76	52	
4385	61.51	62	
4386	63.03	63	
4387	65.96	66	
4388	68.82	69	
4389	71.60	72	
4390	74.28	74	
4391	76.86	77	
4392	79.36	79	
4393	81.79	82	
4393.78	83.63	84	
4393.9	83.91	84	
4394	84.14	84	
4394.31	84.86	85	
4394.5	85.30	86	
4396	86.44	86	
4396	88.67	89	Auxiliary Spillway Crest
4397	90.85	91	
4398	92.98	93	
4399	95.06	95	
4400	97.11	97	
4401	99.10	99	
4402	101.05	101	Dam Crest

Project: Cantrell Dam
 Project No: 22-800-147-00
 Calculation: Auxiliary Spillway Flow for Trapezoidal Spillway

AUXILIARY SPILLWAY FLOW for TRAPEZOIDAL SPILLWAY

INPUT DESIGN PARAMETERS:

SELECTED BOTTOM WIDTH (b)	=	22.00	ft
SIDE SLOPE (Z)	=	2.50	
LEVEL SECTION LENGTH (L)	=	32.00	ft
ROUGHNESS COEFFICIENT (n)	=	0.035	
SPILLWAY INVERT ELEVATION	=	4396.00	



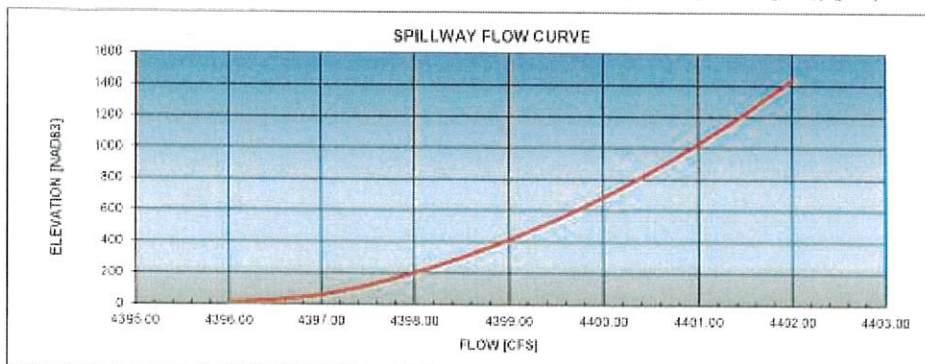
OUTPUT:

SELECTED Yc [ft]	Ac [ft²]	T [ft]	Qc [cfs]	Vc [fps]	Hec [ft]	a	Hp [ft]	R [ft]	Sc [ft/s²]	ELEV
0.00			0							4396.00
0.56	13.02	24.78	94	4.11	0.82	0.00698	1.00	0.52	0.0224	4397.00
1.29	32.84	28.45	197	6.07	1.86	0.00231	2.00	1.12	0.0176	4398.00
2.03	54.86	32.13	407	7.41	2.88	0.00126	3.00	1.67	0.0154	4399.00
2.77	80.24	35.87	681	8.49	3.89	0.00098	4.00	2.17	0.0142	4400.00
3.53	108.74	39.64	1022	9.46	4.90	0.00064	5.00	2.65	0.0133	4401.00
4.29	140.35	43.45	1432	10.20	5.91	0.00050	6.00	3.11	0.0127	4402.00

CRITICAL FLOW EQUATIONS*

- (1) $Q_c = \sqrt{gA^3/T}$, (5) $H_{ec} = Y_c + V_c^2/2g$, (8) $Sc = 14.56n^2A/(R^{1.48})T$,
 (2) $Ac = (b + ZY_c)Y_c$, (6) $H_p = H_{ec}(1 + aL)$, (9) $R = (b + ZY_c)Y_c / (b + 2ZY_c\sqrt{1 + Z'^2})$,
 (3) $V_c = \sqrt{gA/T}$, (7) $a = (4.32n^2)/H_{ec}^{1.55}$,
 (4) $T = b + 2ZY_c$

* The Critical Flow Equations were obtained from SCS TR-2 dated 1956 and the Handbook of Hydraulics (Brater & King, 6 ed., page 9-16).

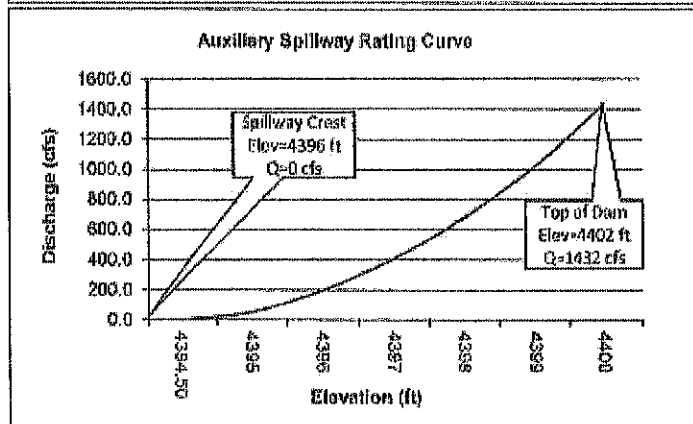
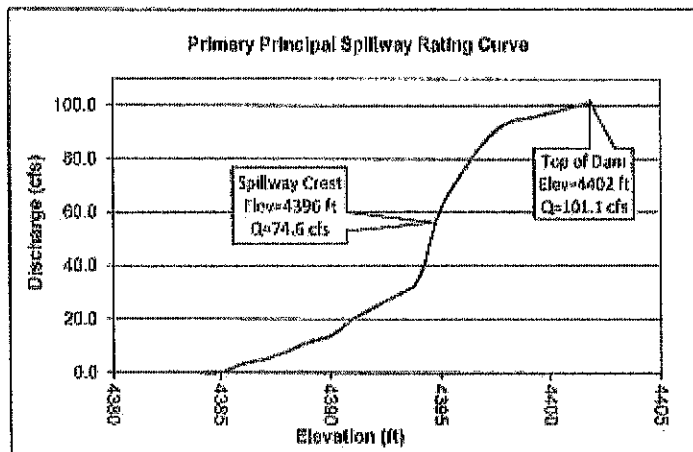


Summary of Flows

July 2022

Project: Centroll Dam
Project No: 22-000-147-00
Calculation: Outflow Summary

WSEL (ft)	Existing Storage Acres-Feet	Principle Riser Orifice Flows (cfs)	Principle Top of Riser Flows+ Orifice Flows (cfs)	Principle 2-24" Pipe Flows (cfs)	Principle Spillway (cfs)	Auxiliary Spillway (cfs)	Total Flow (cfs)	Notes
4382	0.0	0.0	0.0	11.9	0.0	0.0	0.0	
4383	0.0	0.0	0.0	32.0	0.0	0.0	0.0	
4384	0.0	0.0	0.0	61.8	0.0	0.0	0.0	
4385	0.0	0.0	0.0	81.6	0.0	0.0	0.0	
4386	0.1	3.2	3.2	83.0	3.2	0.0	3.2	
4387	0.2	4.9	4.9	86.0	4.9	0.0	4.8	
4388	0.4	7.6	7.6	88.6	7.6	0.0	7.6	
4389	0.7	11.3	11.3	71.6	11.3	0.0	11.3	
4390	1.2	13.7	13.7	74.3	13.7	0.0	13.7	Controlled by Tower
4391	1.8	19.7	19.7	76.9	19.7	0.0	19.7	
4392	2.5	24.3	24.3	79.4	24.3	0.0	24.3	
4393	3.3	28.7	28.7	81.8	28.7	0.0	28.7	
4393.78	3.3	32.1	32.1	83.8	32.1	0.0	32.1	
4393.90	3.3	32.6	33.3	83.8	33.3	0.0	33.3	
4394	4.3	32.9	34.8	84.1	34.8	0.0	34.8	
4394.31	4.3	34.1	41.1	84.9	41.1	0.0	41.1	
4394.50	4.3	34.7	47.4	85.3	47.4	0.0	47.4	
4395	5.4	36.4	60.8	86.4	60.8	0.0	60.8	Auxiliary Spillway Crest
4396	6.9	39.6	74.6	88.7	74.6	0.0	74.6	
4397	9.1	42.3	85.9	90.9	85.6	53.6	139.2	
4398	11.7	44.9	95.0	93.0	93.0	197.5	290.5	Controlled by 24"
4399	14.9	47.4	103.5	95.1	95.1	408.8	501.8	
4400	18.4	49.7	111.2	97.1	97.1	661.0	776.1	
4401	22.4	51.9	115.4	99.1	99.1	1021.9	1121.0	Dam Crest
4402	26.8	54.1	125.2	101.1	101.1	1432.0	1533.0	



Stage Storage

July 2022

Project: Cantrell Dam
 Project No: 22-600-147-00
 Calculation: Stage Storage

Existing Volume					
Elevation	Area		Volume		
FT	SF	AC	CF	ACFT - Interval	ACFT - Cumulative
4,382.0	0	0.0	0	0.00	0.0
4,383.0	20	0.0	10	0.00	0.0
4,384.0	299.62	0.0	160	0.00	0.0
4,385.0	1,350.42	0.0	825	0.02	0.0
4,386.0	2,687.94	0.1	2019	0.05	0.1
4,387.0	6,192.54	0.1	4440	0.10	0.2
4,388.0	11,278.33	0.3	8735	0.20	0.4
4,389.0	17,592.90	0.4	14436	0.33	0.7
4,390.0	23,387.76	0.5	20490	0.47	1.2
4,391.0	28,602.56	0.7	25995	0.60	1.8
4,392.0	33,824.95	0.8	31214	0.72	2.5
4,393.0	39,001.07	0.9	36413	0.84	3.3
4,394.0	44,024.84	1.0	41513	0.95	4.3
4,395.0	50,968.13	1.2	47496	1.09	5.4
4,396.0	83,061.49	1.9	67015	1.54	6.9
4,397.0	105,710.55	2.4	94386	2.17	9.1
4,398.0	125,236.03	2.9	115473	2.65	11.7
4,399.0	147,455.02	3.4	136346	3.13	14.9
4,400.0	164,839.78	3.8	156147	3.58	18.4
4,401.0	181,270.28	4.2	173055	3.97	22.4
4,402.0	203,103.42	4.7	192187	4.41	26.8

Spillway Elevation

Top of Embankment

Appendix D HEC-RAS Output

D1 Existing 50-YR Two Standpipes Depth Map
D2 Existing 50-YR Two Standpipes Depth Map Cook St.
D3 Existing 50-YR Two Standpipes Velocity Map
D4 Existing 50-YR Two Standpipes Velocity Map Cook St.
D5 Existing 100-YR Two Standpipes Depth Map
D6 Existing 100-YR Two Standpipes Depth Map Cook St.
D7 Existing 100-YR Two Standpipes Velocity Map
D8 Existing 100-YR Two Standpipes Velocity Map Cook St.
D9 Existing 50-YR Dam Breach Depth Map
D10 Existing 50-YR Dam Breach Depth Map Cook St.
D11 Existing 50-YR Dam Breach Velocity Map
D12 Existing 50-YR Dam Breach Velocity Map Cook St.
D13 Existing 100-YR Dam Breach Depth Map
D14 Existing 100-YR Dam Breach Depth Map Cook St.
D15 Existing 100-YR Dam Breach Velocity Map
D16 Existing 100-YR Dam Breach Velocity Map Cook St.
D17 Alternative #1 Structure Map
D18 Alternative #1 Structure Profile
D19 Alternative #1 50-YR Two Standpipes Depth Map
D20 Alternative #1 100-YR Two Standpipes Depth Map
D21 Alternative #1 50-YR No Dam Depth Map
D22 Alternative #1 100-YR No Dam Depth Map



Legend

Boundary Conditions

Convey

Flow Depth (ft)

0.25
0.25 - 0.5
0.5 - 1
1 - 2
2+

0 250 500 1,000 Feet

Cantrell Dam Phase 1

Existing 50-YR
Two Standpipes
Depth Map

**WILSON
& COMPANY**

Scale 1 inch = 500 feet
Date 8/5/2022

D1

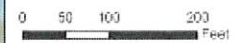


Legend

- Road
- Boundary Conditions
- Contour

Flow Depth (ft)

- < 0.25
- 0.25 - 0.5
- 0.5 - 1
- 1 - 2
- 2+



**Cantrell Dam
Phase 1**

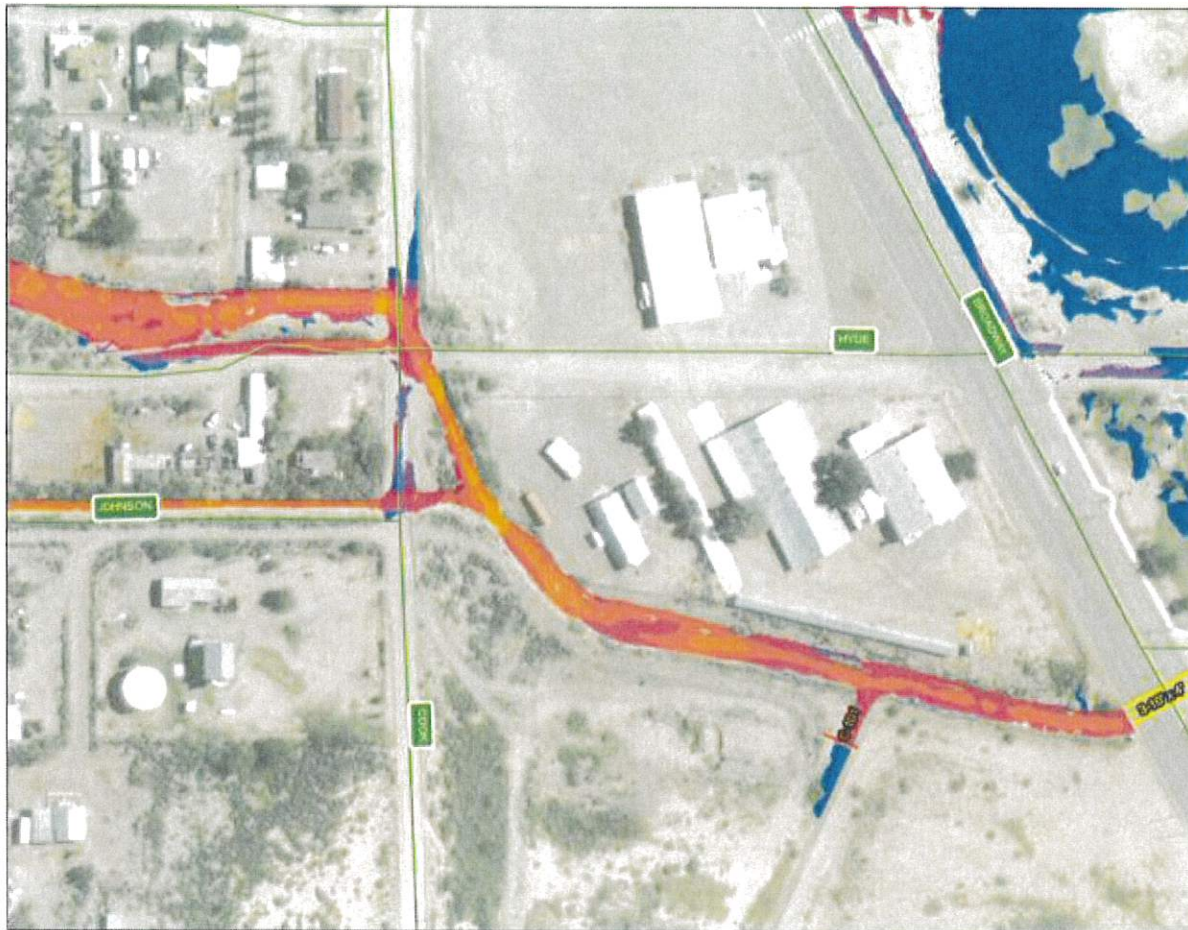
Existing 50-YR
Two Standpipes
Depth Map Cook St.

**WILSON
& COMPANY**

Scale: 1 inch = 100 feet
Date: 8/9/2022

D2





Z

Legend

- Road
- Boundary Condition
- Culvert

Velocity (ft/s)

- ≤ 1
- 1 - 2
- 2 - 4
- 4 - 6
- 6 - 8
- 10 -

0 50 100 200 Feet

**Cantrell Dam
Phase 1**

Existing 50-YR
Two Standpipes
Velocity Map Cook St.

**WILSON
& COMPANY**

Scale 1 inch = 100 feet
Date 8/22/22

D4



N

Legend

Boundary Conditions

Culvert

Flow Depth (ft)

- 0.25
- 0.25 - 0.5
- 0.5 - 1
- 1 - 2
- 2+

0 250 500 1000 Feet

**Cantrell Dam
Phase 1**

**Existing 100-YR
Two Standpipes
Depth Map**

**WILSON
& COMPANY**

Scale: 1 inch = 100 feet
Date: 8/10/2022

D5

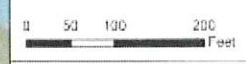


Legend

- Road
- Boundary Conditions
- Culvert

Flow Depth (ft)

- 0.25
- 0.25 - 0.5
- 0.5 - 1
- 1 - 2
- 2+



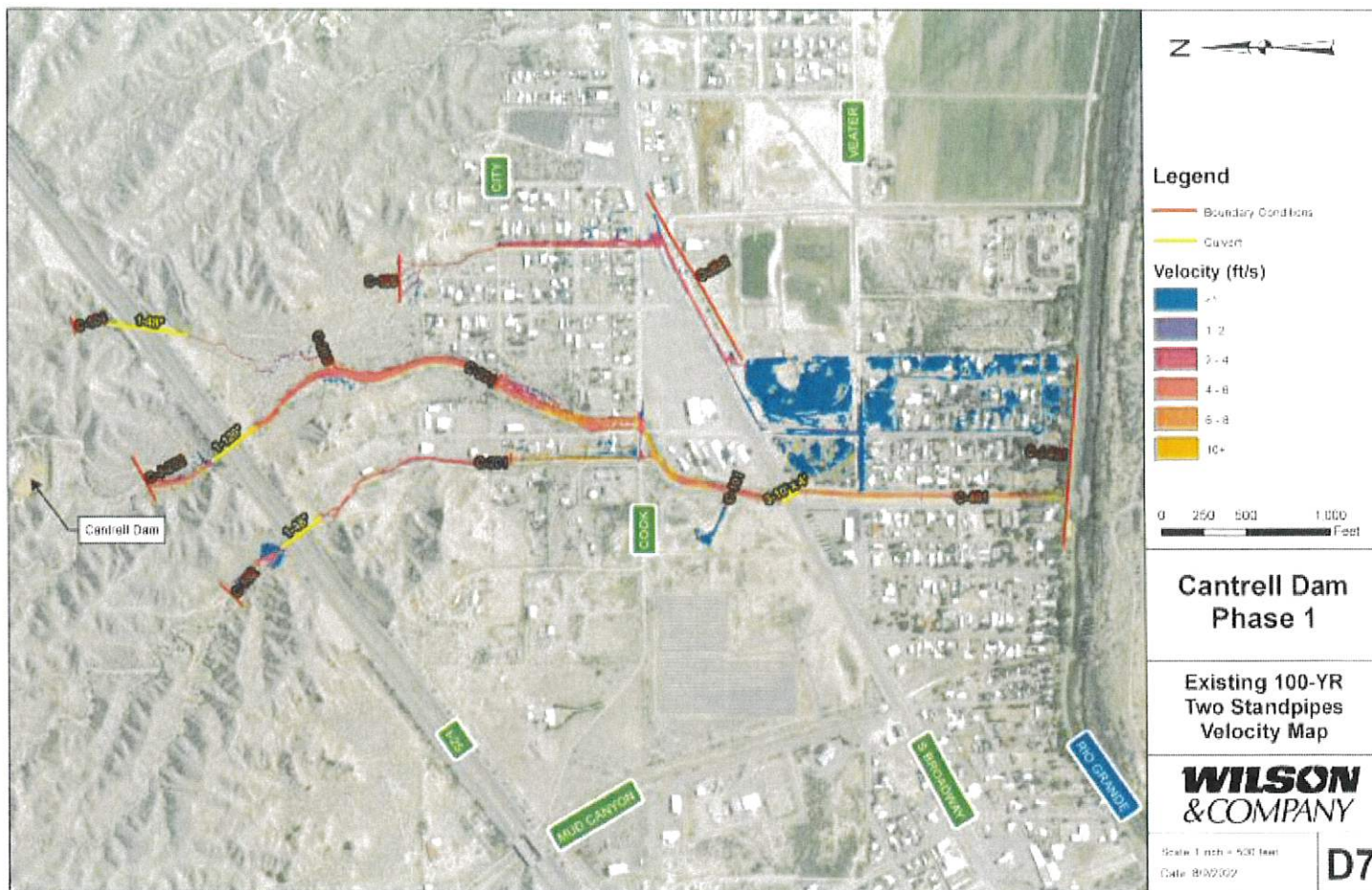
**Cantrell Dam
Phase 1**

Existing 100-YR
Two Standpipes
Depth Map Cook St.

**WILSON
& COMPANY**

Scale 1 inch = 100 feet
Date 5/9/2022

D6





Legend

- Road
- Boundary Conditions
- Culvert

Velocity (ft/s)

Blue	<1
Purple	1-2
Red	2-4
Orange	4-6
Yellow	6-8
Light Yellow	10+

0 50 100 200 Feet

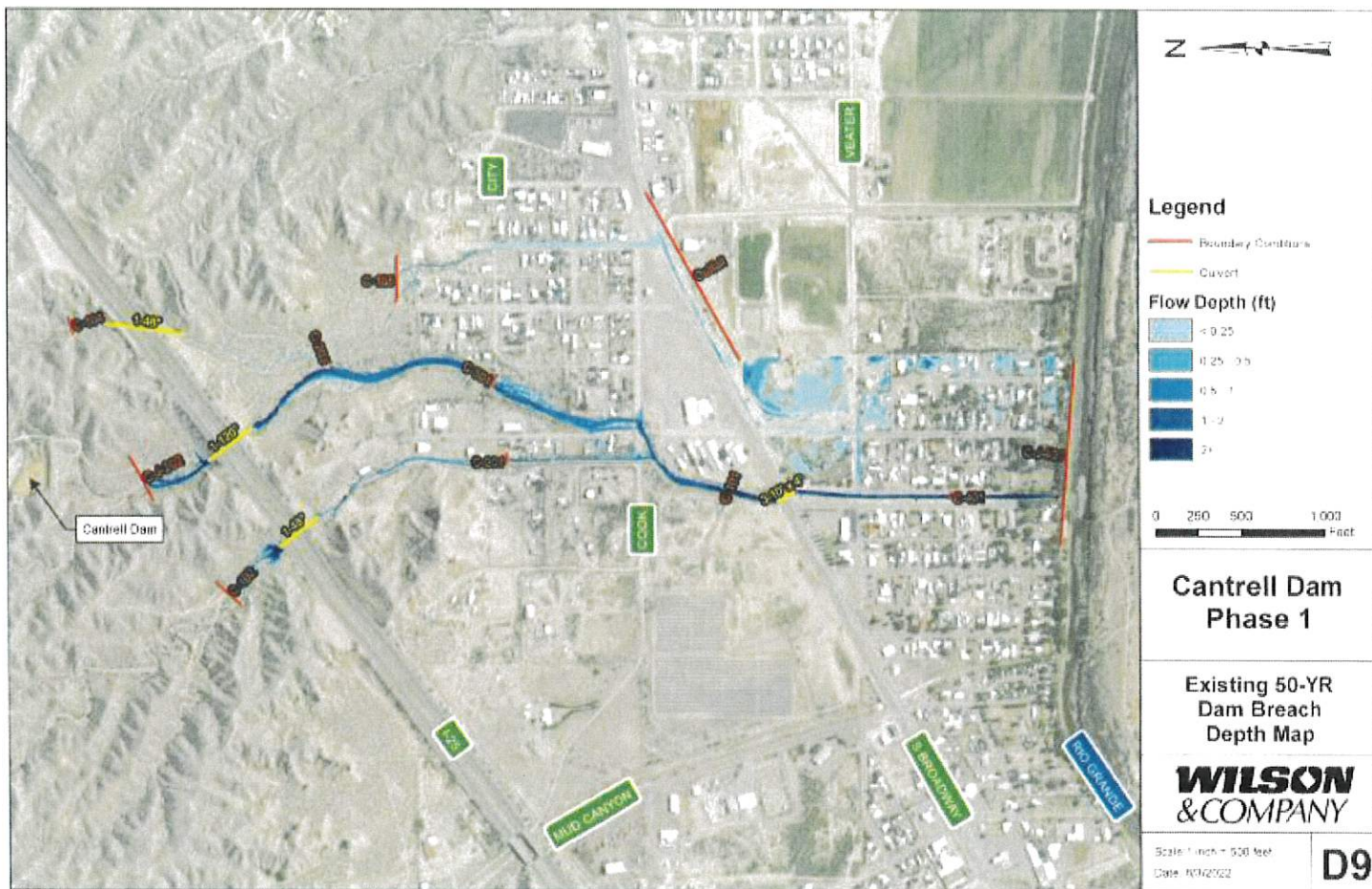
**Cantrell Dam
Phase 1**

Existing 100-YR
Two Standpipes
Velocity Map Cook St.

**WILSON
& COMPANY**

Scale: 1 inch = 100 feet
Date: 5/9/2022

D8





Legend

- Road
- Boundary (Frontline)
- Culvert

Flow Depth (ft)
<VALUE>

< 0.25
0.25 - 0.5
0.5 - 1
1 - 2
2+

0 50 100 200 Feet

Cantrell Dam Phase 1

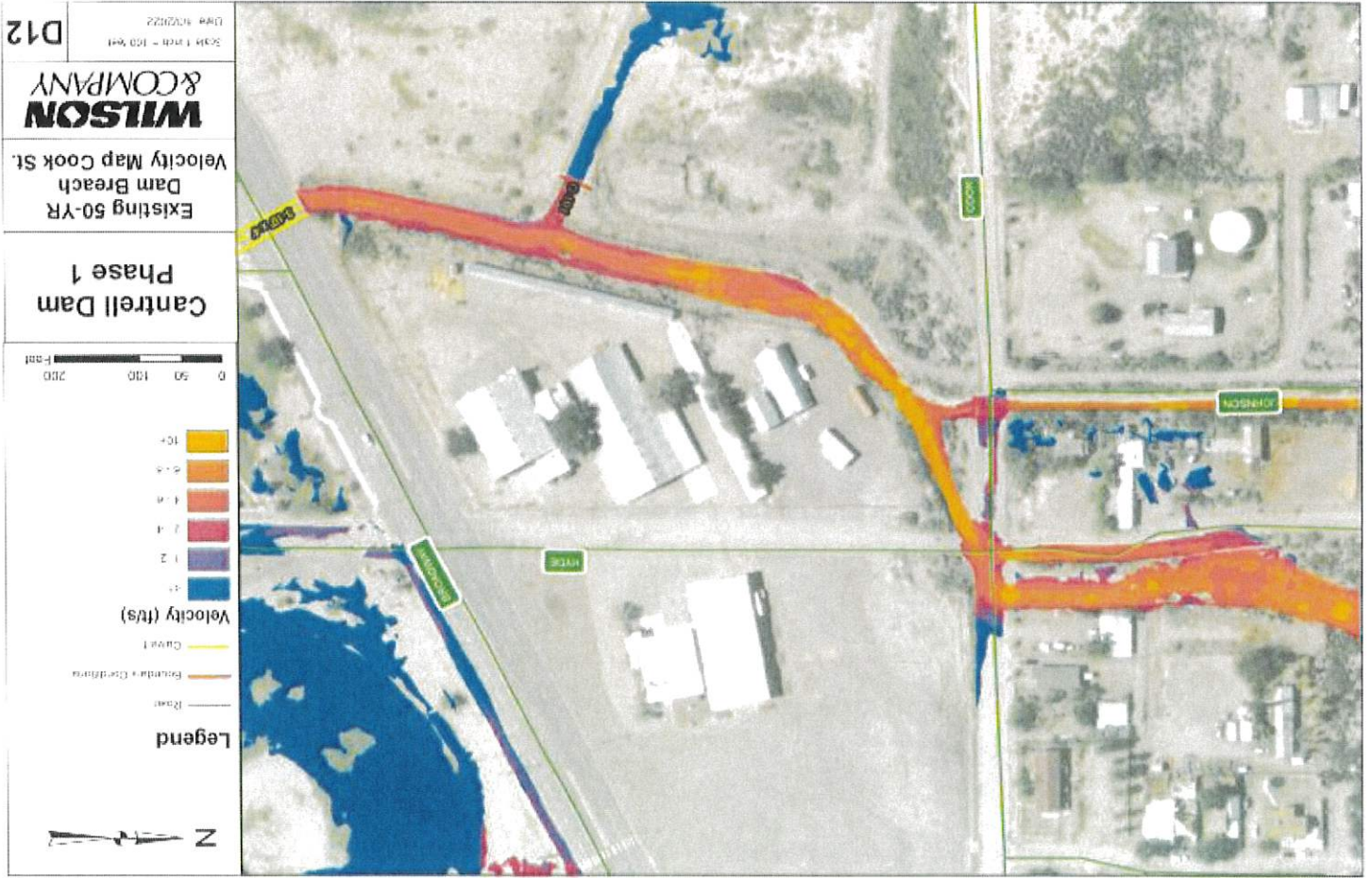
Existing 50-YR
Dam Breach
Depth Map Cook St.

**WILSON
& COMPANY**

Scale 1 inch = 100 feet
Date 5/3/2022


D10











N

Legend

- Road
- Boundary Conditions
- Culvert

Flow Depth (ft)

- 0-0.25
- 0.25-0.5
- 0.5-1
- 1-2
- 2+

0 50 100 200 Feet

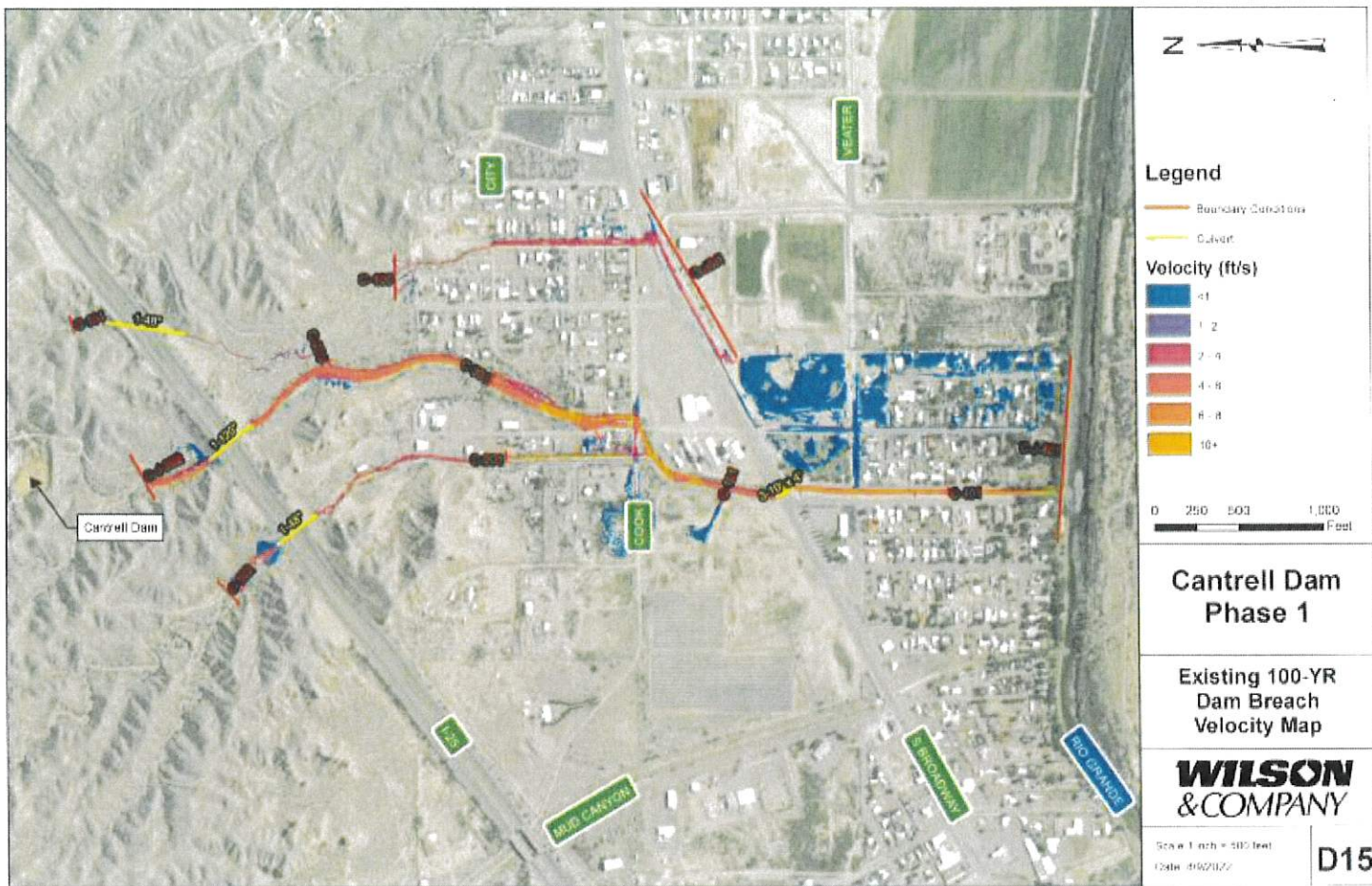
Cantrell Dam Phase 1

Existing 100-YR
Dam Breach
Depth Map Cook St.

**WILSON
& COMPANY**

Scale 1 inch = 100 feet
Date: 03/2022

D14





Legend

- Road
- Boundary Conditions
- Culvert

Velocity (ft/s)

- <1
- 1 - 2
- 2 - 4
- 4 - 6
- 6 - 10
- 10+

0 50 100 200 Feet

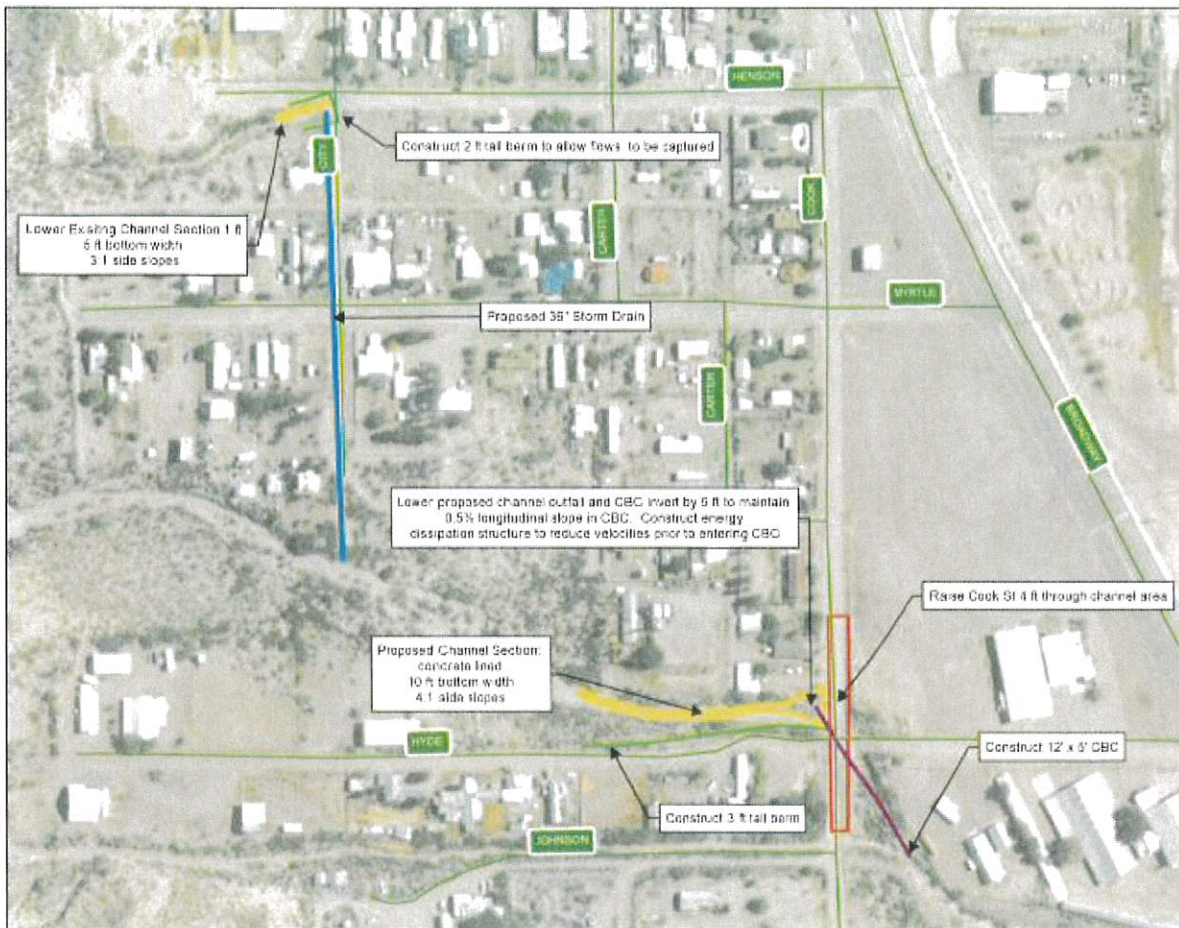
**Cantrell Dam
Phase 1**

Existing 100-YR
Dam Breach
Depth Map Cook St.

**WILSON
& COMPANY**

Scale 1 inch = 100 feet
Date: 06/27/02

D16



Legend

- Road
- Proposed 36" Storm Drain
- Proposed 12' x 5' CBC
- Proposed Right-of-Way
- ▭ Proposed Road Improvements
- ▭ Proposed Channel Improvements

0 75 150 300 Feet

Cantrell Dam Phase 1

Alternative #1 Structure Map

WILSON & COMPANY

Scale: 1 inch = 100 feet
Date: 1/27/2022

D17



Legend

- Proposed 30' Storm Drain
- Proposed 12' x 5' GBC
- Proposed Bank
- Road
- Proposed Road Improvements
- Proposed Channel Improvements



**Cantrell Dam
Phase 1**

**Alternative #1
Structure Profiles**

**WILSON
& COMPANY**

Sheet 1 of 1 - 150 Feet
Date: 10/26/2022

D18



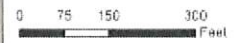


Legend

- Proposed 15' Storm Drain
- Proposed 12' x 12' CBO
- Road

Flow Depth (ft)

- < 0.25
- 0.25 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 3



**Cantrell Dam
Phase 1**

Alternative #1 50YR
No Dam
Depth Map

**WILSON
& COMPANY**

Scale 1 inch = 150 feet
Date 10/20/2022

D21



Legend

- Proposed 36" Storm Drain
- Proposed 12 x 8' Drain
- Flow

Flow Depth (ft)

- < 0.25
- 0.25 - 0.5
- 0.5 - 1
- 1 - 2
- 2+

0 75 150 300 Feet

Cantrell Dam Phase 1

Alternative #1 100YR
No Dam
Depth Map

**WILSON
& COMPANY**

Scale: 1 inch = 150 feet
Date: 10/25/2022

D22

Appendix E Photos

E1 Photo Location Map

E2-E7 Photos



Legend

— Gravel

0 250 500 1,000 Feet

Cantrell Dam Phase 1

Photo Location Map

**WILSON
& COMPANY**

Scale: 1 inch = 500 feet
Date: 9/9/2022

E1

Cantrell Dam Face, Top, and Pool



1. Condition of Dam Face, Looking North



2. Dam Pool, Looking North



3. Condition of Dam Top, Looking West



4. Scour along the Dam Top, Look Northwest

Cantrell Dam Pool and Standpipes



5. Dam Pool Looking Northwest



6. Condition of 2-24-inch standpipes. Left Standpipe is clogged. Looking south.

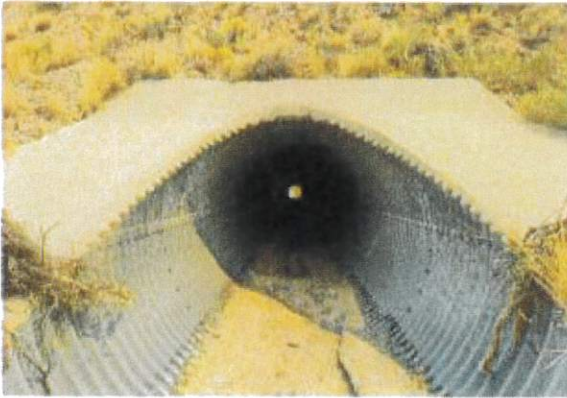


7. 2-24-inch standpipe outlet. Right outlet is clogged. Looking North.



8. Close up of functioning standpipe outlet. Looking North.

I-25 Crossing



9. Headwall of 120-inch CMO Looking South Towards I-25



10. Inside Condition of 120-inch CMO Looking South towards I-25

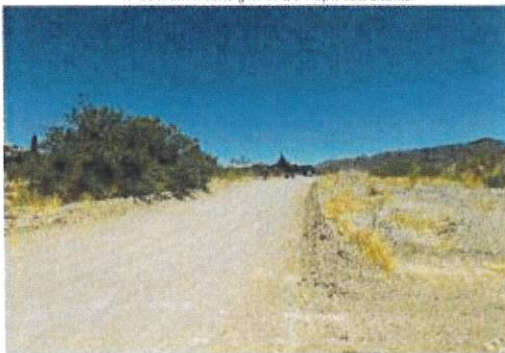
Cook Street Crossing



11 Cook Street looking north at the upstream Channel



13 Cook Street looking South at Downstream Channel



12 Cook Street looking East

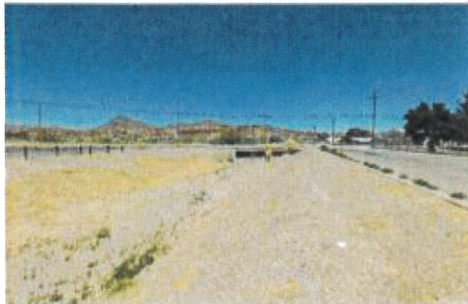


14 Cook Street Existing Concrete Borm in upstream Channel, Looking East



15 Intersection of Lyle Street and Cook Street looking North at Channel

S Broadway Street Crossing and Channel



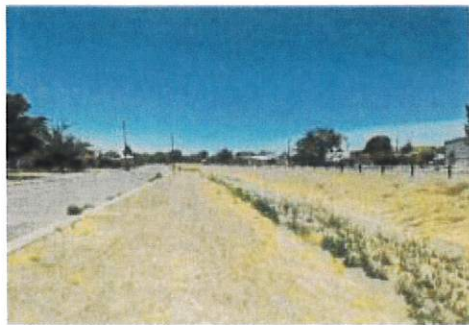
16. Downstream of 1-4x10' CBC Crossing at S Broadway Street - Looking North



17. Condition of Downstream Side of CBC



20. Condition of CBC



18. Channel South of S Broadway St. Looking South Towards Outfall at the Rio Grande



19. Condition of Concrete Runoff

Appendix F Correspondence

Ingles-Garcia, Stephen

From: McClure, Donald B <dmcclure@blm.gov>
Sent: Monday, February 27, 2023 10:38 AM
To: Ingles-Garcia, Stephen
Cc: Montez, Paula J
Subject: Cantrell Dam in Truth or Consequences, NM

You don't often get email from dmcclure@blm.gov. [Learn why this is important](#)

Hi Stephen,

I received your inquiry about Cantrell Dam including the KMZ location.

A records check showed no authorization for this structure was issued by BLM. BLM does not maintain this structure.

If the City is interested in maintaining or reconstructing the structure, a Right-of-Way would be needed. Please contact Paula Montez (cc'd on this email) to discuss a Right-of-Way.

Thanks

Don

Don McClure
Assistant District Manager
BLM, Las Cruces District Office
dmcclure@blm.gov
575-332-1164 (cell)
575-525-4366 (office)

March 27th, 2023

Narrative and Project Description for Application
City of Truth or Consequences, NM Lodgers Tax Advisory Board

Meeting of: March 27th, 2023 Submitted and made Part There Of

For several years The City of Truth Consequences Public Arts Advisory Board has focused on rehabbing and restorative work on The City owned ceramic Fountain designed by the renowned Northern New Mexico Ceramic Artist Shel Neymark. Originally powered by a hot mineral water fed cistern, it has outlived its natural life and it has been determined that a new Hot Mineral well is necessary to make the Public Art Piece work again.

The sculpture a part of the 15 site Cultural Corridors project was a Partnership of New Mexico Arts, New Mexico Highway and Transportation Department and local communities to place landmark artworks along Route 66 and The El Camino Real as they traverse New Mexico. It was a unique model for collaborations among federal, state, and local entities in the public art arena. It is the first introduction visitors to Truth or Consequences have of our magical Hot Mineral Water. It is an important tourism tool and needs to function properly.

After careful study and many reviews the City Public Art Advisory Board has selected the contractor and related work estimates to make the fountain functional again. The review and subsequent board vote has rendered the best value to the city for the work to be done and at a reasonable cost after review of several estimates.

Minutes of July 25, 2023 Under New Business Item F A project update was presented and notification that an additional request would be made for \$15k of additional Lodgers Tax Funds to complete the project.

The City of T or C's Public Art Advisory Board now makes this request.

Estimates Reviewed and voted to accept at
City of Truth or Consequences Public Art Advisory
Board meeting of March 15th, 2023

Maudlin Drilling-----	\$15,396.04
Borderland Construction-----	\$3,255.00
Zia Electric-----	\$2,085.00
State of NM Engineers Office	
Well Drilling Permit-----	\$200.00

Total Work Estimates: \$20,736.04

Funds Available: The City of T or C Public Arts Advisory Board by Ordinance receives 1% Annually from the Lodgers tax fund for Projects within the city	Fund Balance: \$9,013.69
Sierra County Arts Council has \$3,957.98 in a public Art Fund To Contribute	SCAC fund: \$3,957.98

Total funds available: \$12,971.67

Funds Short: (-7,964.37)

**CITY OF TRUTH OR CONSEQUENCES
LODGERS TAX ADVISORY BOARD
MINUTES
MONDAY, JULY 25, 2022**

REGULAR MEETING

Regular meeting of the Lodgers Tax Advisory Board of the City of Truth or Consequences, New Mexico to be held in the City Commission Chambers, 405 W. Third, Truth or Consequences, New Mexico, on Monday, July 25, 2022 at 12:00 pm.

CALL TO ORDER:

The meeting was called to order by Chairman Jake Foerstner.

ROLL CALL:

Jake Foerstner, Chairman
Gina Kelley, Vice-Chairman
Linda DeMarino, Member – VIA PHONE

ALSO PRESENT:

Bruce Swingle, City Manager
Tammy Gardner, Executive Assistant
Lisa Gabaldon, Interim Deputy City Clerk

1. APPROVAL OF AGENDA:

Vice Chairman Kelley made a motion to approve the agenda.
Member DeMarino seconded the motion.
Motion carried unanimously.

2. APPROVAL OF MINUTES:

a. Regular Meeting of May 23, 2022.

Vice Chairman Kelley made a motion to approve the minutes.
Member DeMarino seconded the motion.
Motion carried unanimously.

3. COMMENTS FROM THE PUBLIC:

No Comments.

4. OLD BUSINESS:

a. Discussion/Action: Lodger's Tax Expense Report, Tammy Gardner
Tammy Gardner addressed the board with a handout of the board's expenditure report from the last fiscal year. Tammy explained which organizations used the money for their projects and which ones didn't.
Chairman Foerstner asked what the procedure is for rolling over the funds.
Tammy Gardner stated that the monies will automatically roll over into the next year for 2 years.

City Manager Swingle stated that the board will have \$95,577 roll over into FY 23. They will be getting a huge increase in revenue. The total budget for this year is \$292,162. This is the amount of money that this board has the ability to spend this fiscal year.

Tammy Gardner stated that as far as the Chamber of Commerce goes, the amount that was remaining in their funding was due to miscommunication; typically people come in and physically hand her reimbursements and instead they were emailing her everything. The emails got confusing between them and she may have missed a reimbursement request and when they changed project to project, they brought 2 projects to one meeting, so she took the 2 applications and did one PO for it; she's now learned not to do that. From now on, each project will be issued their own PO. They also ran out of time to complete the project so the \$17,000 will roll over but they are going to ask if they can complete the project later on.

Chairman Foerstner asked what the procedure is if they don't spend it all; do they need to approve it or do they need to go back and reapply?

Vice-Chairman Kelley stated that they may want to revise their original plan.

City Manager Swingle stated that the issue comes in with the agreements that they have them sign. The contracts are for a FY. It can be revised.

Vice-Chairman Kelley stated that it seems easier to make them reapply.

City Manager Swingle stated that they would prefer to leave it within the FY; those monies come in and they would like to pay them out within that FY so that they're not carrying over money in the future.

Tammy Gardner stated that she cannot issue a PO that pays for last year's and they can't issue contracts that pay for this year's to next year. It makes sense for them to reapply.

5. NEW BUSINESS:

a. Discussion/Action: Veterans Memorial Park & Museum 2022-2023 Lodgers Tax Grant Application.

Maggie Allen and Wendy Barnes addressed the board requesting money for pamphlets and the billboard sign.

Vice-Chairman made a motion to approve \$1,106.64 for new pamphlets and \$3,649.20 for the billboard sign on 1-25/new design.

Member DeMarino seconded the motion.

Motion carried unanimously.

b. Discussion/Action: MainStreet 2022-2023 Lodgers Tax Grant Applications

Moshe Koenick was not able to attend the meeting but everything was explained in the request that he submitted for \$1,200 for the design and \$3,400 for the materials and labor.

Member DeMarino made a motion to approve \$1,200 for the design and \$3,400 for the materials and labor.

Vice-Chairman Kelley seconded the motion.

Motion carried unanimously.

c. Discussion/Action: Geronimo Trail Scenic Byway 2022-2023 Lodgers Tax Grant Application

LaRena Miller addressed the board requesting \$488.25 for brochures for design and graphics and \$3,381.38 for printing 20,000 brochures.

Vice-Chairman Kelley made a motion to approve \$488.25 for brochures for design and graphics and \$3,381.38 for printing 20,000 brochures for a total of \$3,869.63

Member DeMarino seconded the motion.

Motion carried unanimously.

d. Discussion/Action: Recommendation for Appointment of Board Member:

1) Jessica MacKenzie

Jessica Mackenzie introduced herself to the board and went over all of her experience.

Member DeMarino made a motion to approve Jessica Mackenzie to the Lodgers Tax Advisory Board.

Vice-Chairman Kelley seconded the motion.

Motion carried unanimously.

2) Gordon Edelheit

Vice-Chairman Kelley made a motion to table the application until the next meeting.

Member DeMarino seconded the motion.

Motion carried unanimously.

e. Discussion/Action: New Lodgers Tax Ordinance, Chairman Foerstner

Chairman Foerstner stated that he understands that the City is considering a new ordinance but he didn't know if the board needs to approve it or if it has anything to do with them. He wants to make sure that they are in state compliance. City Manager Swingle stated that this resulted from an inquiry from Kim Skinner. He stated that he would not hesitate using Lodgers Tax from governmental entities; that is permissible. All they would be doing is amending the language to include local governments and tribal governments.

Vice-Chairman Kelley made a motion to support the resolution that will amend the distribution of lodgers tax to include distribution going to local governments and tribal governments and once this is approved they will also make the amendment on the guidelines.

Member DeMarino seconded the motion.

Motion carried unanimously.

f. Discussion/Action: City Public Art Project, Cary "Jagger" Gustin

Cary 'Jagger' Gustin addressed the board by telling them of all of the projects that the Public Arts Advisory Board has done around the City. For FY23, the PAAB has \$9,014 in their fund and the Arts Council has \$3,956.77 to spend, bringing the total amount available to \$12,970.77. For the last 2 years, the project has been to get the fountain to work at the Geronimo Springs Museum. It is a vital tourist attraction. He went on to explain the problems with getting the fountain to work. He is requesting funding for \$15,000 to get a well driller to come in and repair the fountain. PAAB receives 1% of lodger's tax for funding in order to get a well driller. He has gotten an estimate from Rainmaker Drilling for \$19,000 and has made calls to a few others to come in and give them estimates as well. He wants a turn-key operation for the well.

City Manager Swingle stated that the numbers that are calculated after administrative costs are taken by the City, so there is some overhead that is taken out first.

Chairman Foerstner stated that the estimate for 100 feet of drilling is too much.

Cary 'Jagger' Gustin stated that they hired an artist to come and replace tiles and do some repair work for the fountain so that they wouldn't lose the money to the general fund.

Chairman Foerstner made a recommendation that Jagger get a better bid for a well that is going to do everything that he needs.

Vice-Chairman Kelley advised that if there is an overage of cost to get the job done, then he can apply for funding for the balance.

Chairman Foerstner recommended that Jagger get a better quote and he would give him a few contacts.

g. Discussion/Action: Chamber of Commerce, Marianne Blaue

Chairman Foerstner asked if this was to address the carryover.

Vice-Chairman Kelley stated that she feels they need to reapply. There is no application; it would be cleaner to have them reapply.

Cary 'Jagger' Gustin addressed the board in Marianne's absence. He stated that it's a \$35,000 project which places billboards along the interstate in El Paso. Because of the amount of money, the Chamber doesn't allow for them to pay the money outright so they were able to pay in increments. They pay \$4,500 and then get reimbursed and then they do it again. Currently, they are remised for one payment. They just want to complete the project.

City Manager Swingle stated that they would have to revise the contract; the contract had an expiration date of the fiscal year. The board does not need to make any changes, the City does.

Member DeMarino made a recommendation that the City Commission amend the Lodger's Tax contract for the Chamber of Commerce to let them finish up their project by completing the social media portion and the amount would be the money that was allotted in the first application for the social media.

Vice-Chairman Kelley seconded the motion.

Motion carried unanimously.

6. COMMENTS FROM THE BOARD

Member DeMarino reiterated about making sure that the organizations that the board gives money to have the money to do the projects.

Vice-Chairman stated that it's really sad for a project to stall because of cash flow.

7. COMMENTS FROM STAFF

City Manager Swingle did a follow up on the drama with Airbnb. He went on to talk about the budget for FY23. He stated that they need to come up with a fix on their end in regards to non-profits not having enough money. The smaller the non-profit the more important lodger's tax is; they are less likely to have the capital.

Vice-Chairman Kelley stated that before the system was that the organizations brought the invoices to City Hall and they didn't have to go through the reimbursement part, they were just paid directly. We may want to consider going back to that.

City Manager Swingle stated that the only issue with that is if the City is going to be paying, then on the procurement we have to have 3 quotes, we have to make sure that all of the procurements are done. We always have to get the best attainable price.

Chairman Foerstner asked that the City look into other cities and their Airbnb policies and how they're collecting tax.

Maybe they need to put something in an ordinance so that Airbnb is required to collect the tax. We need to look at other cities codes and see how they are collecting the taxes.

Vice-Chairman Kelley stated that she would go online and look at other cities ordinances to see what they say.

8. ADJOURNMENT

There being no further business to come before the Lodgers Tax Advisory Board, Chairman Foerstner made a motion to adjourn the meeting. Meeting was adjourned.

PASSED AND APPROVED ON THIS 26th DAY OF SEPTEMBER 2022.

Jake Foerstner, Chairman
Lodgers Tax Advisory Board

April 12th, 2023

Narrative and Project Description for Review and Approval

City Commission, City of Truth or Consequences, NM

Commission Meeting of April 12th, 2023

Good Morning: Mayor Forrester, Ladies of the Commission, Bruce, Good Morning, Angela, City Clerk, Jay good morning Tracy from administration good morning, Ladies and Gentlemen in the audience: It's an honor to speak before you this morning I am Cary 'jagger' Gustin representing the Cities Public Art Board

For several years The City of Truth Consequences Public Arts Advisory Board has focused on rehabbing and restorative work on The City owned ceramic Fountain designed by the renowned Northern New Mexico Ceramic Artist Shel Neymark. Originally powered by a hot mineral water fed cistern, it has outlived its natural life and it has been determined that a new Hot Mineral well is necessary to make the Public Art Piece work again.

The sculpture a part of the 15 site Cultural Corridors project was a Partnership of New Mexico Arts, New Mexico Highway and Transportation Department and local communities to place landmark artworks along Route 66 and The El Camino Real as they traverse New Mexico. It was a unique model for collaborations among federal, state, and local entities in the public art arena. It is the first introduction visitors to Truth or Consequences have of our magical Hot Mineral Water. It is an important tourism tool and needs to function properly.

After careful study and many reviews the City Public Art Advisory Board has selected the contractor and related work estimates to make the fountain functional again. The review and subsequent

board vote has rendered the best value to the city for the work to be done and at a reasonable cost after review of several estimates.

Estimates Reviewed and voted to accept at
City of Truth or Consequences Public Art Advisory
Board meeting of March 15th, 2023

Maudlin Drilling-----	\$15,396.04
Borderland Construction-----	\$3,255.00
Zia Electric-----	\$2,085.00
State of NM Engineers Office	
Well Drilling Permit-----	\$200.00

Total Work Estimates: \$20,736.04

Funds Available: The City of T or C Public Arts
Advisory Board by Ordinance receives 1%
Annually from the Lodgers tax fund for
Projects within the city Fund Balance: \$9,013.69
Sierra County Arts Council has
\$3,957.98 in a public Art Fund
To Contribute SCAC fund: \$3,957.98

Additional funding from City of T or C Lodgers Tax
Advisory Board approved at March 27th, 2023
Board meeting-----\$15,000.00

Total funds available: \$27,971.67

Funds not allocated: \$7,235.63

The City of Truth or Consequences Public Arts Advisory Board
now makes the request for approval by the Commission and
permission to proceed with the project on behalf of the City of
Truth or Consequences, NM

I will now stand for any questions the commission may have.

Public testimony 4/12/2023

I urge the Commissioners to reject or table the motion by Commissioner Fahl to adopt or approve the Turtleback Trails Network Plan submitted by the nebulous "Network".

It is not clear who authored this report. It is not signed or dated. My best guess is the author was the NPS "consultant," Attilia Bality. We just don't know. The report implies its a consensus from the "Network". I can assure you that not every person listed on the network description page of the report is in favor of adoption of this plan.

What we do know is that an application was made to the NPS several years ago. The info bulletin board at Rotary Park used to emphasized a "footbridge and trail". Over time mission creep and influence from special interests ballooned the scope of the proposal to include a permanent dam where the earthen dam is, large parking lots, equine trails, boating launch ramps, footbridges that could support ATV's , vehicular bridges that could support EMS response and potentially water, sewer and utilities. The footbridge origins have been hijacked by an aggressive development agenda. Has the City attorney factored in the ongoing maintenance cost of all these project add on's?

The cost of the project has expanded along with the scope. There have been veiled threats made that if the Commission doesn't approve the report, the next injection of funding won't be forthcoming. I do not believe this and feel the funding tactic is being used to manipulate the vote. At a previous meeting where the plan was discussed several months ago, the then city manager said if the Commission didn't accept the report "the city" would have to pay for it. How many times are the Jornada members and the NPS consultant going to use this tactic. Maybe the Commission needs to better understand the federal "money trail" for various community developed trails, that is part of the NPS budget. The City IS the "sponsor" of this project, not the NPS, not Jornada or the "network".

The latest report is better than the last one as it mentions the hydrostatic pressure that helps support the hot springs. Development in any scale larger than a footbridge has the potential to negatively impact the hot springs level and quality of the water. Discovered archeological sites downriver are important to understand and protect. Birds will most likely be negatively impacted by large scale development, including the rare osprey, which frequents the area across from Rotary Park along with the Great Blue Heron. I stated before in public testimony; we need a full NEPA along with another focus area; impact on the hot springs! A "NEPA +" Understanding how the watershed coming off Turtleback supports the hot spring aquifer needs to be understood and requires protective stewardship. A vehicle bridge can potentially negatively impact the ecosystem along the river and hurt the hot springs. Much research must be done.

I'd like to point out one of several inaccuracies in the report. On page 9 a pie chart refers to a survey done to assess residents views on a footbridge vs a vehicular bridge. Both charts were portrayed incorrectly. A quick view of the pie chart would leave the reader to think the vehicular bridge was desired when the survey showed just the opposite.

Again I urge you to reject or delay the vote on this trail plan. It would be better to scale back the planning to focus on a simple footbridge and safe hiking trail development. One approach to the process of studying the ecosystem impact would be to implement the long overdue Wetlands Elements of the Healing Waters trail that was approved in 2009, but never implemented. I suspect the safety reviews on this bigger project may find a similar outcome wherein reviews are waived , money is provided to go forward and the negative impacts on development across the river could be irreparable. Please vote no on the trails adoption motion.

April 8, 2023

Sierra County Sentinel
Chuck Wentworth Editor/Senior Reporter
217 East Third
TorC, NM 87901

Dear Chuck,

Thank you for the 3/24/2023, front page report, on the City Council 's unanimous vote to delay an "adoption vote" on the proposed Turtleback Trails master plan. The plan was introduced by Attila Bality, a National Park Service (NPS) employee as a consultant for the Jornada Resource Conservation and Development group. Kudos to the Mayor for tabling this vote as the masterplan has several major flaws and stretches far past the original request by the City, to the NPS, for the development of a proposed footbridge and trail plan. One sentence really stands out in the Sentinel article: "sections of the plan devoted to the potential development of hiking trails, foot bridges **and/or vehicular bridge access**" (emphasis mine).

There is a big difference between a hiking/running trail and an "adventure trail". There is a big difference between a footbridge and a vehicular bridge. The Council should reject the proposed "Master Plan" as submitted by Jornada (if thats who wrote it, the document doesn't clearly state who wrote it). A plan focused on a footbridge and hiking trails, the original intent, would be a better alternative. Waving the "we'll pay for it" banner does not work when the potential for a negative impact on the watershed, the river **and the Hot Springs water is at stake.**

Who is Jornada and what is their interest? Why is an NPS employee encouraging adventure trails? What impact would a vehicular bridge have on the environmental impact: Birds, fish and other wildlife would be negatively impacted. Many in town have expressed the sentiment "fix our current downtown first before developing another one". It is a slippery slope to even consider a vehicular bridge as part of a trail plan. Most residents are against it (page 9 of the Master plan) as shown in a survey. The only problem is the unknown author of the report displayed a visual pie chart showing the exact opposite of the results. A quick view of the chart would lead one to believe most people were in favor of the plan, when they are not.

Commissioner Fahl was right to recuse herself from the vote, as she has a conflict being a significant member of Jornada. City attorney Rubin was wise to recommend delay to see what further costs and obligations the city may encounter with this expanded design. Has the planning and zoning committee weighed in on this? April is too soon to return to a vote on this matter. What is needed is for the City to narrow the focus of the "next stage" of the planning process to only include a footbridge and hiking trails. The section of the Rio Grande affected is a very delicate ecosystem that supports the health of our hot springs. We need to be good stewards of "the waters". Starting a planning process that includes consideration of a larger development is a slippery slope to potential irreparable damage to the river, the wildlife and our beloved hot springs. Thank you.

L. Chris Devlin