City of Santa Fe

Agenda

CITY CLERK'S OFFICE
DATE 11/29/12 TIME 10:13a
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PUBLIC UTILITIES COMMITTEE MEETING
CITY COUNCIL CHAMBERS
WEDNESDAY, DECEMBER 5, 2012
REGULAR MEETING – 5:00 P.M.

1. CALL TO ORDER
2. ROLL CALL
3. APPROVAL OF AGENDA
4. APPROVAL OF CONSENT AGENDA
5. APPROVAL OF MINUTES FROM THE NOVEMBER 7, 2012 PUC MEETING

INFORMATIONAL ITEMS

6. Drought, Monsoon and Water Resource Management Update. (Rick Carpenter)

CONSENT – INFORMATION ITEMS

7. Status Report on the Environmental Services Division. (Cindy Padilla)
8. Update on Current Water Supply Status. (Victor Archuleta)
9. 8.2% Water Rate increase effective January 1, 2013. (Brian Snyder)
10. Update on AMR Pilot Project. (Richard Chavez and Peter Ortega)

CONSENT – ACTION CALENDAR

11. Request for approval of a Professional Services Agreement with Tierra Right of Way Services for the Santa Fe Watershed Management Project for the amount of $50,000.00 exclusive of NMGRT. (Dale Lyons)

    PUC – 12/5/12
    FC – 1/8/13
    CC – 1/30/13

12. Request for Sole Source Procurement of Para Lock System for Aeration Basin Mixers from James Cooke and Hobson, Inc. for the Wastewater Treatment Plant for the total amount of $101,784.00.00. (Luis Orozco)

    PUC – 12/5/12
    FC – 1/8/13
    CC – 1/30/13

13. Request for approval of award of contract to InfoSend, Inc. for RFP No. '13/07/P printing, mailing, electronic presentment, and archiving of utility customer bills and reminder notices for the total amount of $63,880.00 exclusive of NMGRT. (Peter Ortega and Robert Rodarte)

    FC – 12/3/12
    PUC – 12/5/12
    CC – 12/12/12

14. Request for approval of Change Order No. 1 to Padilla Industries construction contract in support of McClure Reservoir Stream Gage Construction Project for the increased total amount of $45,422.25 inclusive of NMGRT. (Dale Lyons)

    PUC – 12/5/12
    FC – 1/8/13
    CC – 1/30/13

DISCUSSION ITEMS AND ACTION ITEMS

15. Request for review and approval to finalize the Buckman Wellfield Arsenic Evaluation alternatives as identified by CDMSmith. (Brian Snyder)

    PUC – 12/5/12

16. Discussion of the draft Reclaimed Wastewater Resource Plan. (Claudia Borchert)

    PUC – 12/5/12
    Water Conservation Committee – 12/11/12
    River Commission – 12/13/12
    PUC – February 2013 (Final Draft)

MATTERS FROM THE PUBLIC
MATTERS FROM THE CITY ATTORNEY
ITEMS FROM STAFF
MATTERS FROM THE COMMITTEE
NEXT MEETING: WEDNESDAY, JANUARY 2, 2013
ADJOURN

PERSONS WITH DISABILITIES IN NEED OF ACCOMODATIONS, CONTACT THE CITY CLERK'S OFFICE AT 505-955-6520, FIVE (5) WORKING DAYS PRIOR TO THE MEETING DATE.

SUMMARY INDEX
PUBLIC UTILITIES COMMITTEE MEETING
Wednesday, December 5, 2012

MINUTES OF THE
CITY OF SANTA FE
PUBLIC UTILITIES COMMITTEE
Wednesday, December 5, 2012

1. CALL TO ORDER

A meeting of the Public Utilities Committee was called to order by Councilor Christopher N. Calvert, Chair, at approximately 5:00 p.m., on Wednesday, December 5, 2012, in the Council Chambers, City Hall, Santa Fe, New Mexico.

2. ROLL CALL

MEMBERS PRESENT:
Councilor Calvert, Chair
Councilor Bill Dimas
Councilor Carmichael A. Dominguez
Councilor Christopher M. Rivera
Councilor Ronald S. Trujillo

OTHERS PRESENT:
Brian Snyder, Public Utilities Director
Stephanie Lopez, Public Utilities
Marcos Martinez, Assistant City Attorney
Melessia Helberg, Stenographer

There was a quorum of the membership present for conducting official business.

NOTE: All items in the Committee packet for all agenda items are incorporated herewith to these minutes by reference. The original Committee packet is on file in the Public Utilities Department.

3. APPROVAL OF AGENDA

MOTION: Councilor Dimas moved, seconded by Councilor Rivera, to approve the Agenda as submitted.

VOTE: The motion was approved unanimously on a voice vote.

4. **APPROVAL OF CONSENT AGENDA**

MOTION: Councilor Dimas moved, seconded by Councilor Dominguez, to approve the following Consent Informational Calendar as amended and Consent Action Calendar as presented.

VOTE: The motion was approved unanimously on a voice vote.

CONSENT – INFORMATIONAL CALENDAR

7. **STATUS REPORT ON THE ENVIRONMENTAL SERVICES DIVISION. (CINDY PADILLA)**

8. ***[Removed for discussion by Councilor Trujillo]***

9. **8.2% WATER RATE INCREASE EFFECTIVE JANUARY 1, 2013. (BRIAN SNYDER)**

10. **UPDATE ON AMR PILOT PROJECT. (RICHARD CHAVEZ AND PETER ORTEGA)**

CONSENT – ACTION CALENDAR

11. **REQUEST FOR APPROVAL OF A PROFESSIONAL SERVICES AGREEMENT WITH TIERRA RIGHT OF WAY SERVICES FOR THE SANTA FE WATERSHED MANAGEMENT PROJECT FOR THE AMOUNT OF $50,000.00, EXCLUSIVE OF NMGRT. (DALE LYONS). PUC 12/05/12; FC 01/08/13; AND CC 01/30/13.**

12. **REQUEST FOR SOLE SOURCE PROCUREMENT OF PARA LOCK SYSTEM FOR AERATION BASIN MIXERS FROM JAMES COOKE AND HOBSON, INC., FOR THE WASTEWATER TREATMENT PLAN FOR THE TOTAL AMOUNT OF $101,784.00. (LUIZ OROZCO) PUC 12/05/12; FC 01/08/13; AND CC 01/30/13.**

13. **REQUEST FOR APPROVAL OF AWARD OF CONTRACT TO INFOSEND, INC., FOR RFP NO. 13/07/0 PRINTING, MAILING, ELECTRONIC PRESENTMENT AND ARCHIVING OF UTILITY CUSTOMER BILLS AND REMINDER NOTICES FOR THE TOTAL AMOUNT OF $63,880.00, EXCLUSIVE OF NMGRT. (PETER ORTEGA AND ROBERT RODARTE). FC 12/03/12; PUC 12/05/12; AND CC 12/12/12.**

14. **REQUEST FOR APPROVAL OF CHANGE ORDER NO. 1 TO PADILLA INDUSTRIES CONSTRUCTION CONTRACT IN SUPPORT OF McCLURE RESERVOIR STREAM GAGE CONSTRUCTION PROJECT FOR THE INCREASED TOTAL AMOUNT OF $45,422.25, INCLUSIVE OF NMGRT. (DALE LYONS) PUC 12/05/12; FC 01/08/13; AND CC 01/30/13**

5. APPROVAL OF MINUTES FOR THE NOVEMBER 7, 2012 MEETING

MOTION: Councilor Trujillo moved, seconded by Councilor Dimas, to approve the minutes of the meeting of November 7, 2012, as submitted.

VOTE: The motion was approved on a voice vote with Councilors Dimas, Trujillo and Rivera voting in favor of the motion, no one voting against, and Councilor Dominguez abstaining.

INFORMATIONAL ITEMS

6. DROUGHT, MONSOON AND WATER RESOURCE MANAGEMENT UPDATE. (RICK CARPENTER)

A copy of *U.S. Seasonal Drought Outlook* dated November 15, 2012, is incorporated herewith to these minutes as Exhibit "1."

Mr. Carpenter reviewed the information in his Memo of November 26, 2012, to the Public Utilities Committee. Please see this Memorandum and Exhibit "1" for specifics of this presentation.

Councilor Dominguez asked how shutting down one of the reservoirs for renovation will impact the situation, especially with regard to San Juan/Chama water and our ability to store water in the reservoirs.

Mr. Carpenter said there is a CIP project which is in the initial stages, which eventually will shut down both reservoirs – one and then the other – to make much needed repairs to the intake structure, and some other ancillary facilities. He said, from a construction standpoint, if makes it easier if there is no water in the reservoir. From a storage standpoint, that possibly could exacerbate a situation. He said staff would monitor that, noting the City has the ability to defer construction if the situation warrants. However, again, we do have other supply sources which could be used to meet demand.

Councilor Dominguez asked if there is "point of no return or a threshold," where we decide whether or not to defer construction.

Mr. Carpenter said he isn't working the project, but he understands the construction on the reservoir won't begin for at least another year.

Brian Snyder said this is correct. He said currently the design plans are being reviewed by the State Engineer. He said after the high demand season, August/September 2013, the goal is to shut down one of the intake structures through winter 2014, and then the following winter in 2015 we would move on to the next reservoir. He said Mr. Carpenter is correct in stating that we do have flexibility, and flexibility will be built into the contract to be able to stop construction prior to starting.

Mr. Snyder said there is a point of no return. He said, with that in mind, it is their full intention to use as much of that water as possible, noting modifications will be made to the existing structures to get water from the reservoirs to the treatment plant and treat as much of the water as possible.

Councilor Dominguez said then this won't impact the City's ability to store San Juan/Chama water.

Mr. Snyder said this is correct, and it won't impact San Juan/Chama water at all.

Mr. Snyder asked Mr. Carpenter to present information on the next item, which ties in with this one.

CONSENT DISCUSSION

8. UPDATE ON CURRENT WATER SUPPLY STATUS. (VICTOR ARCHULETA)

Mr. Carpenter reviewed the Weekly Water Report for the week of November 25, 2012, which is in the Committee packet.

Councilor Trujillo said Mr. Carpenter already answered his question which was in regard to what would happen in the construction phase of repairs on the City reservoirs.

DISCUSSION AND ACTION ITEMS

15. REQUEST FOR REVIEW AND APPROVAL TO FINALIZE THE BUCKMAN WELLFIELD ARSENIC EVALUATION ALTERNATIVES AS IDENTIFIED BY CDM SMITH. (BRIAN SNYDER) PUC – 12/05/12.

Brian Snyder said noted his Memorandum of November 27, 2012, with attachments, regarding this item, which sets out the background. He said the City's consultant, CDM Smith is in the audience and will be presenting the options as set out in the *Draft Fact Sheet Buckman Well Field Arsenic Alternatives Evaluation*.

Mr. Snyder said he has met with several of the Committee to discuss these options to provide status updates on the project. He said, "One of the take home messages I wanted to highlight is in 2001, the EPA changed the arsenic standard in drinking water from 50 ppb to 10 ppb. One of the things I did not write in this Memo, and it was intentionally not written because it complicates it. It's not as simple as just being 10 ppb. The standard right now is a running annual average, meaning that, on average throughout the whole year, if we do not exceed 10 ppb, we are in permit compliance.

Mr. Snyder continued, "The City has never exceed 10 ppb in any one instance, let alone an average. So we are in permit compliance and we don't have any current problems. That being said, as part of our Capital Improvement Program approved several years ago as part of our Finance Plan, we identified a potential need as a result of this reduction in the Buckman Wellfield."

Mr. Snyder said several of our high producing wells have an arsenic value higher than the 10 ppb. The wells may be higher than the standard, individually. However, they have accommodated use of the wells by blending the water so the end result in the 10 million gallon tank doesn't exceed the 10 ppb. He said the City is limited in terms of source of supply as to which wells we can use at certain times and in combination with one another so we don't exceed the 10 ppb.

Mr. Snyder said the City had the capital improvement project identified to explore what it would take to treat the arsenic out of the Buckman Wellfield. He said in 2010-2011, the City did a pilot project to determine a system that would work to remove arsenic or a portion of arsenic, so we would be in permanent compliance no matter what concentration of wells we could use. The cost of that system is about $10 million. He said we have $8 million in the CIP to fund this project, and we could shuffle projects around and make that a priority project if we so chose. However, he was uncomfortable doing that at the time because we've never had an exceedance. He also was uncomfortable with having a $10 million system sit "moth balled" for many years.

Mr. Snyder said CDM Smith was hired to look at various systems, including spending the $10 million as well as other options to accomplish something similar to spend the money, noting there are 8 options listed in the Memo. Staff has evaluated those and ranked them. He said f the Committee is in agreement with the options, the next step will be to discuss these options with County and BDD staff because some of the options involve BDD in some way, and we haven't spoken with them to see if they would agree with the flexibility with out system.

Robert Fowley, CDM Smith, said they have worked all over the State, noting arsenic exists in the water across New Mexico throughout the entire Western United States. Santa Fe is in a unique position in that it has a diverse portfolio of water supplies. He said only 4 of the Buckman Wells have arsenic which exceeds the current mcl. Santa Fe has never had an exceedance and the current compliance through blending has been highly successful.

Mr. Fowley reviewed information in the draft fact sheet which is in the Committee packet. Please see the Draft Fact Sheet which is in the Committee packet.

The recommendation is Alternative No. 1.

The Committee commented and asked questions as follows:

- Chair Calvert asked, with regard to 7A, what is our current contingency or backup plan should something happen to the pipeline that goes from Buckman Treatment Plant to the storage tank. Are the wells our contingency.

Mr. Snyder said we definitely have a plan and various phases have been implemented over the years. We do have a single feed for a portion of the pipeline from the river to the 10 million gallon water tank. In the last 5 years, we have installed in-line valves to isolate various sections of that line. If there is a break in the line closer to the river, we can isolate that system and continue to use our wellfield as necessary and repair it internally or we have emergency on-call contractors that can come out and repair that very quickly.

– Chair Calvert asked if we have the materials to respond as quickly as possible – pipes and such – which can be used temporarily.

Mr. Snyder said they do have some materials on hand and could do the repair, depending on the magnitude. He said the materials also are readily available at our on-call contractors, who are required to have various sizes of pipe, valves and fittings in stock at their yard. He said there is a parallel line at Booster Station #3, which is where the BDD facility comes into the Wellfield Line and Booster Station #4, so that line is redundant and has a redundant parallel pipeline. Additionally, they are in design phase of extending the parallel pipeline from Booster Station #4, approximately ½ mile toward the 10 million gallon tank, to provide more redundance as well as to reduce the head of the pipeline and allow us push more water toward the 10 million gallon tank.

Mr. Snyder said they also are creating isolation valves which allow them to break off segments of the pipe, and in emergency situations there are on-call contractors to assist as needed.

– Chair Calvert asked if Option #5, the well rehabilitation, has any legal/OSE implications.

Mr. Snyder said yes. His understanding is if we would re-drill a well, we would re-drill within 100 feet of the existing well, because it doesn't go through the same scrutiny and process, although they haven't looked at that option closely to see if there is an option to re-drill the well. He said most likely they would have to go outside the 100 ft. buffer zone. At that time, we would open ourselves to a different OSE review and permitting process, and potential protests.

– Chair Calvert said he is comfortable with Option #1, but Option #2 would give us a little more safeguard and accuracy in terms that the blending strategy is complying. He said although Option #1 is fine for now, he would like to see us work toward doing Option #2 eventually, which would give the public the assurance we are doing everything we can to be sure we never exceed that standard.

– Chair Calvert said he would suggest that we continue to maintain the budget for #7 if we ever need to do that. He said he is saying we don't need to keep the entire budget tied to this particular project, but he would like to, at the least, keep Options #2 and #7 funded on contingency basis, then the other funds could be reallocated as needed.

Mr. Snyder said it is obvious the reason Options #1 and #3 were ranked highly. He said we're doing what we're doing and it doesn't change that. The reason #7 rank closely thereafter, is that

the $400,000 capital investment in comparison to the cost of a treatment process is tremendously less. However, the flexibility it would provide the City is great. The times that we are concerned about exceeding the MCL in the Buckman Wellfield are during the high demand periods, such as a drought, where we can't run the BDD for some reason have to pump the well field. He said Option #7 allows us, when we aren't using the BDD facility, to pump the wells and a portion of that water can go to the 10 million gallon tank and a portion can go to the BDD to be treated. He said the high arsenic water from the 4 wells with higher arsenic can be treated through the BDD facility.

- Chair Calvert said it also allows taking advantage of storage capacity at the BDD.

  Mr. Snyder said yes and it provides more flexibility. He said in modeling, cost played a large role in this, and for $400,000 we could add flexibility to get water to our customers, have it be reliable and storage and treatment option, if necessary. This is the reason Option #7 ranked high.

- Chair Calvert said Option #7 will require coordination with the BDD Board. He said he would rank #1, #2 and #7 as short, medium and long term in terms of implementation, and work on things to get there.

  Mr. Fowley said in doing rankings they looked at water quality and sustainability, as well as looking at this study as a feasibility study and an action play. He said the no-change alternative keeps the City going, and as time passes, you could implement Option #2 as we discussed and #7. He said, with regard to Option #7, in terms of water quality, running the groundwater through the Buckman plant will get the water quality needed to meet the current MCL 10. If there would happen to be a reduction in the standards down the line, that plant will get you where you need to be without a problem. It's something the City currently maintains and operates, and in times of drought, the treatment is right there for the City.

- Chair Calvert asked if we thought we eventually would do #7, would we not do #2 – if you do #7, do you really need to do #2.

  Mr. Snyder said, "From staff perspective, we looked at a stair-step approach, and we felt that #2 provides us additional security. And if were to bundle a couple of alternatives together, we felt that we would bundle #2 and #7 together, because it provides the security where we know exactly real time data, as well as provides flexibility, without a cost of millions of dollars, and that ultimate water quality and getting water to where we need it in the system. So staff felt pretty strongly, and what you had said, the short, medium long, but also, if we're do something, #2 and #7 kind of go hand-in-hand from the standpoint of being able to provide flexibility and redundancy.

  Mr. Fowley said he agrees, noting if the City were to choose Option #2, it won't affect anything you do with Option #7. In fact, he knows of many plants which use on-line analyzers to monitor the downstream concentrations after treatment. He said it would be money well spent and would be of benefit to the City.

- Chair Calvert asked if the Committee is comfortable with that approach.

- Councilor Rivera asked Mr. Snyder if he could explain in lay terms how the blending process works.

  Mr. Snyder said, "In very simple terms, we only have 4 wells that exceed the level that meets the standard. So, when we're not using any of those wells, and we are using the other 9 wells within the Buckman Wellfield in combination with the Northwest well, it doesn't matter what combinations of wells we pump from a water quality standpoint. It matters more from a production standpoint. So we have programs set, the operation of programs that are set up, based on a certain demand in the system, we use a certain well because it matches well with that demand. When you start turning on a well with a higher arsenic concentration... say you turn on Well 10, and Well 10 has an arsenic concentration of 11, say. We know that by the time it gets to our storage tank that it needs to be 10 or below. So we have to match that 11 with a well that has a 9 or less at the same flow rate so we can get the average below the 10 value."

  Mr. Snyder said, "Where it becomes complicated is where we're using multiple... it's not that simple obviously, but where it becomes complicated is when you're using multiple wells with multiple concentrations at multiple different flow rates, so it's more than just averages. It's a bunch of calculations. But from a simplistic standpoint, it boils down to averages. What you put in the pipeline, somehow you have to blend and mix the water together to reduce the value below the 10 ppb.

- Councilor Rivera said then right now, we're just blending what's coming out of the wells with other water from the other wells, and we're not blending with the BDD or anywhere else.

  Mr. Snyder said we have the ability to blend with the BDD. Typically, when the BDD is running, we're often not running our Buckman Wellfield, and this one option. We have the ability to blend BDD water and Buckman Wellfield water to assist with that blending, yes, that's correct.

- Councilor Rivera asked if there is the possibility where we would have a fire or other event where the BDD is down and we can't use the reservoirs or the BDD.

  Mr. Snyder said this did happen, but we had water available from Canyon Road that we did increase, but that was during the high demand period, so we weren't putting a lot of water through the Canyon Road Plant that time. However it is a possibility, noting the reservoirs currently are hovering around 28-29% which is not untypical for this time of the year, and we lower them to a level so we can accommodate any snowpack runoff in the Spring. If there was no snowpack runoff, and we had 29% going into the Spring, and BDD shut down, then we would rely a little more heavily on the Buckman Wellfield which we've been resting for the last several years, and in combination with the City Wellfield.

- Councilor Rivera said he agrees with the Chair's recommendation for Options #2 and #7. However, with this information he sees more of an urgent need to get this done sooner than later. He said the Chair described this as a process which would take some time.

- Chair Calvert said he didn't mean to lead anyone to believe it would take years, but we could do Option #2 as soon as "you can get it together and go out there and do it." He said Option #7 will require some inter-governmental cooperation. He said, "I'm just putting it, it may take a little bit longer to accomplish than #2, but I'm not talking necessarily it has to be years, or something like that."

  Mr. Snyder reiterated one of the next steps are discussions with the County who is the City's partner with the BDD. He hasn't discussed with the County. However, if the BDD is off-line, the County relies on the City's Water Resources Agreement for backup water during that time. And what Option #7 does is to provide flexibility to getting them water as well as getting water to City residents. He thinks this is an opportunity for a win-win situation for everybody. He is unsure how the County will perceive this, but it will be explained to them showing the benefits of it, and the minimal cost implications because of it. He asked Mr. Fowley the time for design and construction for Option #7.

- Mr. Fowley said it probably will take about 4 months to design, and 6-9 months to build it.

  Mr. Snyder said, "With that in mind, even if we got the blessing from the County to move forward with this, say January, early next year, we're still looking at, by the time it's designed and constructed and procurement happens, the end of calendar year 2013, at the earliest, just to give you a time perspective of what we're looking at."

- Chair Calvert said, "We've already been working at the Buckman on another alternative for the County, even when the Buckman Treatment Plant is shut down, so they could still draw water for say Las Campanas, if they needed to. As I'm sure you are aware, that would be a preferred alternative, than us providing them with well water. Right. Okay"

- Councilor Dominguez asked if there are additional operating costs to this option, other than perhaps some training.

  Mr. Fowley said there are some additional operations and maintenance costs associated with each of the alternatives. However, the operations and maintenance costs associated with Option #2 are very minor, probably about $30,000 a year just for operating and maintaining the analyzers. With Option #7, there are additional costs, primarily power costs for pumping the water to the plant for treatment. However, the City is not incurring any additional operations cost for people to maintain or operate the treatment plant.

  Councilor Dominguez said then he can't estimate the potential cost on Option #7.

Mr. Fowley said it is about $142,000 a year in operation and maintenance costs, which includes electricity.

- Councilor Dominguez said, "Given that, I'm just wondering if it wouldn't be beneficial... I don't know how you as the Chair of BDD wants to introduce this discussion to them. $142,000 doesn't seem as it will be some sort of deal-breaker."

- Chair Calvert said that would be our expense, not theirs, so that wouldn't be a factor in their decision. He said they will have to feel comfortable that it's not going to preclude any of their deliveries. In other words, it's not going to push them aside or something in terms of priority, and that's one of the things we have to work out operationally and formalize in an agreement of some sort if we go down this path.

- Councilor Dominguez said then there is no blending in Option #7. He would like to get this before the BDD Board, sooner, rather than later.

- Councilor Rivera said,"Seeing the clear benefit the County is going to get from this as well, should things really get to a point where we're all in trouble, I wonder if we could share those O & M costs, at least bring it up for discussion, because they clearly have the benefit from #7 as well as the City does."

  Mr. Snyder said that is definitely something they would share with them. He said we have developed a good working relationship with them, especially on the Las Campanas topic of doing some technical evaluations." He has a good relationship with Adam Liveland and Pego Guerrerortiz to have a discussion on this topic, and it could be limited to Option #7 and the benefits of it, so City and County staff are on board with this topic, prior to coming to a Board meeting. The next BDD meeting is tomorrow, so it won't happen then.

- Chair Calvert said it can be put on the January agenda.

  Mr. Snyder said, between now and the January meeting, if he is given direction by this Committee, he could meet with the County and have this discussion, and hopefully get feedback as to where they stand on this.

- Chair Calvert said we've traditional shared costs on these kinds of things, based on the amount of use and how it is used.

  Mr. Snyder said we have a model that's working right now, and we definitely would use that as a starting point for discussions.

- Councilor Dominguez noted that Las Campanas is the County's customer, and Mr. Snyder said this is correct.

Councilor Dominguez said then anything that would impact Las Campanas would be up to the County.

MOTION: Councilor Dominguez moved, seconded by Councilor Rivera, to approve this request to continue with Option #1, move forward with Option #2, and investigate Option #7 by starting discussions with the County and the BDD Board.

VOTE: The motion was approved unanimously on a voice vote.

16. DISCUSSION OF THE DRAFT RECLAIMED WASTEWATER RESOURCE PLAN. (CLAUDIA BORCHERT) PUC 12/05/12; Water Conservation Committee 12/11/12; River Commission 12/13/12; and PUC February 2013 (final draft)

A Memorandum dated December 5, 2012, with attachments, to the Public Utilities Committee, from Claudia Borchert, Water Resources Coordinator, regarding discussion of the draft Reclaimed Wastewater Resource Plan, is incorporated herewith to these minutes as Exhibit "2."

Ms. Borchert said before the Committee is the, once again, renamed Reclaimed Wastewater Resource Plan in draft form. She said she found a mistake in the previous packet, and they are still working on the draft. She said working group and herself are still incorporating the comments they are getting, etc., noting she found a mapping mistake and this is the reason did redid the information which went out in the packet.

Ms. Borchert reviewed the information in Exhibit "2." Please see Exhibit "2," for specifics of this presentation. Ms. Borchert said she is hoping to get feedback on the 3 pieces of the plan.

The Committee commented and asked questions as follows:

- Councilor Trujillo asked about the deal the City made with the New Mexico Game and Fish Department to get Fire Department access to Siringo Road.

  Ms. Borchert said she is unfamiliar with that.

  Bryan Romero said the two contracts/agreements happened at same time, but there was no tie to the contracts, noting they looked for that, and there wasn't. He said they were tied in terms of the timing in which they happened.

- Councilor Trujillo said then this has nothing to do with that agreement, and Mr. Snyder said no.

  Ms. Borchert said this is water which is provided to the Game & Fish for landscaping, what she would call an educational landscaping, noting they have a pond with a fish and they irrigate a minimum amount of landscaping with the Reclaimed Wastewater that they pump from one of the

storage ponds at the Marty Sanchez to its facility use outdoors. It is a total of 5 afy per year.

– Councilor Dominguez said he wants to understand the chart a little better. He said, "When you say 'Downstream Santa Fe River and Upstream Santa Fe River,' what is the difference between those."

Ms. Borchert said, "The Downstream Santa Fe River option is an option, and I was going to explain this a little bit more later, and this is a fine time to do it, that allocates water to be released from the Wastewater Treatment Plant to go downstream."

– Councilor Dominguez said downstream is from the Wastewater Treatment Plant down, and Ms. Borchert said yes.

Ms. Borchert continued, "And it is 0.5 million gallons in the winter, and going up to 3 million gallons in the summer. And those numbers, any time we talk about the River numbers, they have a high degree of uncertainty with them. The only place we measure flows accurately, is what comes out of the Wastewater Treatment Plant, but what happens to the water as it goes downstream is not very well defined, and that system also is changing. We've heard from the irrigators downstream that 3 million gallons in 2003, would provide enough water for them to irrigate their fields in La Bajada. 3 million gallons this last year, some people say, barely made it past the City-owned land which is called the Rural Protection Zone around the Airport. Partly because there's been a lot more vegetative growth, partly because of the beaver activity. So, we've defined a budget for that option, but we don't really know if it meets the objectives that you guys would want to see a water budget meet."

– Councilor Dominguez said the upstream is from the "Wastewater Treatment Plant up."

Ms. Borchert said, "Right. So that would be a way to provide water to another segment of the River that currently only receives storm flows. And would include piping it and bringing it upstream to which point has not been defined, but we defined a budget that we felt like was available to do that. It didn't score very well through the rest of this process."

– Councilor Dominguez said, "I wonder why."

Ms. Borchert said it costs money to pump water upstream, and it didn't rank as high under the criteria they were using.

– Councilor Dominguez said this is the part in which he is interested – in the future, being able to make sure that the entire community has water in the Santa Fe River and it sounds like there has been that thought, irregardless of where it's rank, there's been that thought incorporated into this.

- Councilor Dominguez asked, "When we talking about the rankings of the first three, and maybe this is a question for Marcos or Brian, when we talk about these waters being already obligated, in particular the Santa Fe Country Club, that is done. That has been determined and that is absolute. And the reason I ask, is because other people have come to me to tell me that there may be an opportunity for the City of Santa Fe to be able reclaim that water. No pun intended."

  Marcos Martinez said, "I would say that Buckman permit compliance and livestock water are a little bit different than the Country Club. And that's because there's a contract between the City and the Santa Fe Country Club that provides that water. And any contract is subject to future amendment. So whether it be through a friendly amendment, mutual amendment I should say, with the Country Club that they agree to take some lesser amount of water, or there may be other options, other policy considerations that are available to the City in re-evaluating that contract perhaps. I don't think it's quite in the same category. It might be sort of a one and a half, as the Buckman Permit Compliance and the livestock water we provide. I think there are options there."

- Councilor Dominguez said part of that discussion arose due to the rumor that the Country Club was closing. When he heard that, he thought there may be an opportunity to reclaim that water.

- Councilor Dominguez asked, "Claudia, when these things were ranked or discussed among the group, was there any thought given to, outside of the current contractual obligations, was any thought given to amending those obligations in the future. Was there, in other words, presumably if we get more parks in the, SWAN will probably help, that at some point we may not need Santa Fe Downs, and the potential to move that water from that to parks. Was there some of that discussion when we were ranking them. I know this is kind of an old topic, but I just want to know how it fit into the ranking process, if at all."

  Ms. Borchert said the reason Santa Fe Downs ranks in there with municipal facilities is that we use like a municipal field. She originally thought once we reached 2018 or the near future and SWAN comes on line, this one would fall into a different category. However, her discussions with Parks indicates they still see us having a shortage of playing/recreational fields.

- Councilor Dominguez asked, "But up until what time."

- Chair Calvert asked, "Forever"?

  Ms. Borchert said, "To answer your question, absolutely. If the City builds parks somewhere else and doesn't need that facility any more, it would be within our purview to say, thank you very much, we're going to use this wastewater over here."

- Councilor Dominguez said, "And maybe not even all of it. So, when does that contract end."

  Bryan Romero said the contract has a clause that it continues on until we give notice. It expires in one year, but if we don't want to extend them notice, then it terminates. He said he thinks it has a

10 day notice. He said, "Currently, the contract is past the year, but it goes on until... we sent the notice to the Santa Fe Downs letting them know that it had expired and if they wanted to renew. But it just keeps on going until we decide that, or keep going with it. So they have the option to renew it for another year. Marcos may be able to explain that clause a little better."

- Councilor Dominguez said they will start building the pipeline soon for SWAN, in another year. He asked at what point would we have to amend the agreement with Santa Fe Downs to give them less and provide more in the pipeline.

  Mr. Martinez said, "I don't have the contract in front of me, but we only need to give them, I think at most, 30 days notice, that we are going to even terminate the contract entirely. And if we were going to give them the option to keep some amount of it, I'm sure they would be amenable to anything we would be willing to give them, as the contract is right now."

- Chair Calvert said we've had this discussion in the past, and perhaps we need Parks and/or Recreation to come to this Committee and talk about this issue at a future meeting, in terms of water and capacity needs. He said in the chart, when we have these depictions, we have them both in there "sort of additive and not one going down and one going up."

- Chair Calvert said, "I think, whether our SWAN park and irrigated parks totally replace what ours needs at the Downs, probably will replace some of the need. And so, I would assume that we wouldn't continue over time to keep both of these at the full amounts, in terms of adding both of those. I think one is going to come down by amount and one is going to go up, or one is going to be what you project it to be. That's my point on that one. I too thought, originally, the Santa Fe Downs and the SWAN Park and the southwest irrigated parks were sort of the same bucket. In other words, as you build one, you take it away from here and put it in here. And it might not be exactly a one for one, but I think we need to finesse that a little better. And maybe we need to get Parks and Recreation here to have that discussion as to how they see that working, because I would like this to be as accurate as possible, and not have more in there for certain uses than we need."

- Chair Calvert said, "While I'm at it, on the other point that you brought up Councilor Dominguez, on the Country Club, I for one, would like to see legal to be creative and thinking out of the box as to how we might be able to amend that contract, either in quantity, or in terms of things like conservation best practices uses on their golf course for the water. They've got sort of a blank check and they have no motivation necessarily to do those things. I think as water gets ever more precious, as we know, I think they have an obligation to some of those things. And so I would like to see us at least try to get them to the table on those things, however we could do that."

- Councilor Dominguez said in looking at ranking with required uses and past policy, he understands those which are ranked higher is because of our contractual obligations. He is unsure how that works with the weighted criteria and what the correlation is. He said, for example, SWAN Park, the weighted criteria was 4, yet it's ranked 10. He is still trying to understand how this works.

Ms. Borchert said this chart says that SWAN was ranked 4th. If we just used the weighted criteria which includes the criteria approved by the Governing Body and the superimposition on that of which of those criteria is more important to you, then SWAN came up as what this community really wants, fourth behind Buckman Well Permit Compliance. One of the criteria is to improve water supply criteria, so that was ranked 2nd before they were rearranged and third was the MRC for the same reason SWAN ranked high – they're municipal facilities and people like to go play on them. It is a value to use in this community.

Ms. Borchert said, for example, Santa Fe Country Club in absence of municipal requirements, would have come in dead last.

- Councilor Dominguez said there is a note that talks about those that are shaded in gray, and you can see the disparity in SWAN Park and not so much in Marty Sanchez.

Ms. Borchert asked the Committee, regarding the Executive Summary is there anything which "jumps out at you as something you'd like to discuss or give me feedback."

- Chair Calvert said 8.2 on page 28 says "Value RW as a municipal asset." He said this is what she was touching on, making sure that we uniformly charge everyone the same thing, but we also have to update what we charge as well. In terms of the value of water, we value wastewater based on what we charge for our treated water. We want to keep it competitive and not charge more for the reclaimed water, because people would start using our treated water. However, in terms of value, if we raise our potable water rates, we need to think about charging more for the reclaimed water.

Ms. Borchert said she was given the sheet on wastewater and it's always half of our residential potable water.

- Chair Calvert said most contracts specify the rate, but we need to make sure there is an automatic adjustment clause for the future, and this is something he would look for.

- Chair Calvert said in 8.3 Water Quality Theme, Ms. Borchert talks about Class 1A reclaimed versus Class 1B, and he doesn't know the difference, therefore he doesn't know the significance.

Ms. Borchert said this section has been slightly rewritten and there was a lot of discussion about that.

Bryan Romero said Class 1A requires us to have a turbidity of less than 5 all the time, and we're close to that, but sometimes we don't. He said with 1A you get less restrictive as far as use, you don't have to be so stringent on the BMPs. The BMP measures would be for the permit holders, where you can't water when people are present, or the setback requirement. Other than that, it's pretty close.

- Chair Calvert asked what would be cost that would be required to be consistently at 1A, if that is the goal.

  Mr. Romero said 95% of the time we meet the 1A requirement. However, at 5% or less than that, we don't, and he doesn't want to stop using that water for irrigation or purposes like that. He said a lot of the time that comes during the winter months when we get a little more solids on the effluent side, although it still meets all permit requirements.

- Chair Calvert asked about the restrictions with 1B and if it has to do with the time that has to transpire before people are able to use the facility where you irrigated with that water – what is the significance to the end user of 1B versus 1A.

  Mr. Romero said one are the setbacks, that when you water, you need to be 100 feet away from someone or a residence.

- Chair Calvert said there is no time limit and once it's watered, it doesn't make any difference, and Mr. Romero said yes.

- Chair Calvert said that might impact when you could water, fo example, in an active park, you would want to be watering when people aren't there such as at night or in the early morning.

  Mr. Romero said yes. He said anything with 1A water. He said the difference has more to do with the times that you can water.

- Chair Calvert said, with regard to 8.4 Operational and Management Theme, the ones that comes to him are working around storage. He said, according to the chart, the only time we're sort of maxed out is in the middle of the graph in the middle of the year. He said we have more flexibility as we move toward either direction from the middle of that chart. He said, "That's where I think the storage options, whether they be tank or aquifer or something, I think definitely need to be explored, because it gives us more flexibility in how things are being used and where they can be used, depending on the strategies."

- Chair Calvert continued, "And to that end, moving down through 8.4, I think this is where you also talk about seeking financial assistance. I think we need to work with the County and other agencies on this as well, because some of these impacted uses, are like downstream uses, perhaps. And I know we've gotten a couple of resolutions from the County and one memorial from the State, and that's all fine and good, saying City do something. But it would be nice if they were willing to share in the expense of doing something, especially since they're not necessarily our residents or constituents."

  Chair Calvert continued, "And so I think that we should work with them to see, as well, what they're... if they would be willing to help with some of the costs of some of these storage 'solutions'."

- Chair Calvert said, regarding 8.6, the efficiency aspect should be developed, and as contracts come up for renewal, we can put these kinds of provisions in there so that people are being good stewards of the resource. He said where these are City uses, Parks has done some of this, but he doesn't know if that has gone through all of the recreational facilities such as the MRC. He said it should be across the board that we try to get the best efficiency when it is used.

- Chair Calvert said he doesn't know about the water budgets, but thinks they sort of go hand in hand and you try to set the budget based how effectively and efficiently.

- Chair Calvert said Ms. Borchert talked about 8.4, it is sort of a protocol for who gets it in times of shortage. He believes we need to factor in the number of people that are affected. If there is a facility which is very heavily used, he believes this has to be factored in. He said you get a dichotomy at the MRC. There are some facilities at the MRC which are heavily used, but we also have some facilities at the MRC that are very specialized and not as heavily used. He thinks that is getting to a level to which Ms. Borchert may not want to get, but you factor in how many people are affected if we have to curtail."

- Calvert said with regard to 8.6, he believes we will be moving forward with climate change impacts and adaptation, and this needs to be incorporated into that analysis as well.

- Calvert said these are his comments on the strategies, noting all have some value and he thinks we need to be moving forward in a meaningful way on several of those in this area.

Ms. Borchert asked for guidance on the four questions identified in the very last page of the Memo.

1) *The ranking of reclaimed wastewater.* We've already talked about that.

2) *Does the reclaimed wastewater allocation for the downstream Santa Fe option reflect the direction of the Governing Body, recognizing that it cannot fully be met during June under the current prioritizations.*

- Chair Calvert asked if there a difference in ownership of the well versus the property.

Ms. Borchert said that is it, noting it is in Court right now. She said the County owns some of the water rights in that well, and the County's long term plan is to move the water rights from there to elsewhere. She doesn't know the status of that. She said one of the compromises would be that the County puts enough water rights in there to allow the Equestrian Center to pump. She said in the future use, this gets a little worse, so it's in May, June, July, sometimes an August problem, but there is still the idea it could perhaps use some water sometime.

Ms. Borchert said she has another idea. She said we are putting water into the groundwater right by that we could apply for an aquifer storage permit with the OSE, create our own water right and then allow them to pump it from the ground under our permit, under our water rights to use on their land.

She asked, "Getting back to the Santa Fe River if that is the kind of allocation you think is reasonable. In the graphs in future years it gets worse, where there are less months where they get their full allocation. If we put this as a higher priority, they would get their water more often."

- Chair Calvert said if she is talking about the downstream Santa Fe water, commenting it gets worse, but he doesn't see it not being met except in June, any of the time.

  Ms. Borchert said if it is important to the City, the water supply could take the entire Santa Fe downstream allocation because it ranked higher. If we really want to maximize the amount of reclaimed wastewater we were using as a potable water supply source, we could use the entire light blue amount for potable water.

- Chair Calvert said, for clarification on the graph, "On the 2020 one, I've got potable water supply is a dark blue, but I've got upstream Santa Fe River as sort of the same dark blue."

  Ms. Borchert said that needs to be changed.

- Chair Calvert said, "Am I reading this that the one to the side is potable and the upstream is the one above the red line."

  Ms. Borchert said this is correct.

- Chair Calvert said, "My personal opinion is, Santa Fe Equestrian Center is something that the County needs to deal with. And the only reason, I think they're think they're moving the water rights is because they think we'll take care of it because we have in the past, but I don't think that should be. We've made a distinction of supplying the Annexation Agreement, sort of put a demarcation and said, the City's going to take care of these areas and the County's going to take care of these areas outside those presumptive City limits. That's why I think this and... I think they have the water there that's needed and they may have probably more than is needed, so they don't have to totally alter their plan of moving some of those water rights, but they may not get to move all of it. But I think, in my opinion, that is their responsibility and I would keep it as one of the absolutely lowest priorities if it has any priority at all."

- Councilor Calvert continued, "And also, we also talked about storage, and where we say we can't meet it, according to the [inaudible] yes, that's having not done any of these other things that we talked about doing. Because, if we do some storage, whether it's aquifer or in the storage tank,

then possibly those needs could be met. It's just a matter of who's going to pay for the infrastructure that makes that happen. Again, we might be willing to do some of it, but we would certainly like the other parties to chip in, I think, on meeting that need."

- Councilor Calvert continued, "I understand what you're displaying here graphically, that's sort of, given the current situation, and I think not doing anything with storage. But I think if we do something with storage we might be able to meet, say that downstream use, I don't know. That's a theoretical question that needs to be answered technically, I guess."

  Councilor Borchert said this is also saying we value this use, we just need them to kick in just a little bit. She said if this is something the Governing Body wants, this is 1,800 afy. It's the largest user of our reclaimed wastewater.

- Chair Calvert said we may be able to figure out a way to do it more efficiently. He said we have problems getting water to downstream users and that's because we send it down the River. However, if we can figure another way to get it farther downstream beyond the log jam, then maybe it would be more useful and maybe we wouldn't need to send as much.

  Ms. Borchert said a group is working on that, and one of the considerations is that the property where the log jam occurs is our property for the first part, so we obviously are part of the solution on that question, on how to get the water to flow more efficiently in the water.

- Chair Calvert said "efficiently" is in the eye of the beholder. In terms of where some people want it to go, it doesn't necessarily have to be in the same pipeline and could be delivered in a different manner and maybe everybody would be happy.

  Ms. Borchert asked if the allocation they've done for the Santa Fe River seem reasonable, or if there is guidance this Committee would like to give staff on how that looks.

- Councilor Dominguez said it seems reasonable to him, but he doesn't know how practical it is right now for the future.

- Chair Calvert said the priority it is given is – when all other demands have been met we're willing to do that. As time "marches on," other events take place, we will ask people to get more efficient as well.

- Councilor Dominguez said his preference, in terms of priority, is to use that water downstream for farming purposes because that's part of our culture, and as time moves forward, we ask them to become more efficient, and they don't have to use as much water. He said when we talk about obligations outside the City, in terms of priority, that is one of his priorities. However, he wants to see some of the agreements we have with, for example The Downs and the Equestrian Center, and we look at changing the portfolio a little bit.

- Chair Calvert said in talking about downstream agriculture uses, the State and the City are imploring the City, and this is a place where they could assist financially by helping to fund better irrigation practices and help fund them converting over. They could be part of the solution as well.

  Ms. Borchert said, "There's one thing I would just like to put in here, is the idea.... the plan is meant to be a living document, but indeed of all the options that has the most uncertainty around it and is probably going to need to be revisited the most is probably this option, because a lot of different things that change around it."

3) *Does the Governing Body wish to initiate the analysis to determine a rate for all RW users?*

- Chair Calvert said it has value, and some of the departments are getting it free of charge, but it is a value to know how much they are getting. He said it would be good to know what that amount is. He said a rate analysis would require some sort of elasticity of demand study – if you raise the price at what point do people say they're going to use regular water. He said we have set it arbitrarily at 50%, but is that really the break point. He thinks this would be a good analysis to do. He said what we charge probably doesn't pay the cost to produce the product, but it would be nicer to get closer and recover more of our cost. However, we need to know what people are willing to pay.

  Ms. Borchert said the thought was the wastewater rate should be eliminated, and it should be the reclaimed wastewater users paying for it. The idea is that some people use the reclaimed wastewater, such as the golfers.

- Chair Calvert said then you have to get into the economic analysis – if you raise the greens fees at Marty Sanchez will they go to another golf course.

  Ms. Borchert agreed it gets very tricky.

  Ms. Borchert said, "And so, I guess if we had to prioritize our work in these implementation actions, it almost sounds like this one would not rank very high. Is that true."

- Chair Calvert said he thinks some of the other issues are more important in terms of getting consistency and looking at storage and efficiencies. These are more important to him, than going through this exercise, because he is unsure what it will tell us ultimately other than, "Yes, we're subsidizing this, but what choices do we have."

- Councilor Dominguez said at some point pricing will be an issue.

4) *Does the Governing Body wish to pursue the use of reclaimed wastewater as supplemental potable water supply source.*

Ms. Borchert said if the direction is yes, the next step for staff would be to do a feasibility study to help us evaluate which of the 3 ways in which you could use reclaimed wastewater makes the most sense for us as a community. The 3 ways would be: aquifer storage and recovery; building a return flow pipeline; or additional treatment somewhere between the Wastewater Treatment Plant and the Buckman Regional Water Treatment plant and mixing it with the Rio Grande water that has come up at the Buckman – more of a direct reuse with additional treatment. She said they would hire experts to evaluate the 3 ways.

– Chair Calvert said the first 2 have significant merit and the 3rd is what is it going to tell us. He thinks 3 has merit, but it is more long range in terms of when we might need it. The first two might have an impact on that. Part of the reason is because we've identified a future gap that this might help to change, and climate change might exacerbate that. He would pursue the first 2 because they would have immediate impacts and might influence when we want to get serious about the "one you just mentioned."

Ms. Borchert said the results of the Long Range Water Supply Plan in about 1½ years will give us an idea of when the gap will occur, noting we are using the existing plan to identify the gap, which is really showing in 2030 which gives us time, but she expects that to be sooner. That might be the driver for how important this becomes and when to start looking at it.

Chair Calvert said hopefully the full Council will weigh in and express their concerns and we'll get even better definition as we move forward.

Councilor Dominguez said it might be beneficial to get some of this to the full Council as an information item.

Chair Calvert asked Ms. Borchert her plan currently.

Ms. Borchert said she plans to go before the Water Conservation Committee and the River Commission next week, then have a public meeting in January, and then bring the draft back to this Committee.

Chair Calvert suggested that she set up a meeting to reach the rest of the Councilors who aren't on this Committee and the Mayor, in one meeting or individual meeting, to go over this one-on-one with the other 4. He said when it comes to Council, he would not like that to be their first time to see this. He believes it will pay dividends for all concerned in the long run.

Mr. Snyder said there was a request from a Councilor who is not on PUC to have this at the Finance Committee, commenting he is unsure if that is the appropriate place.

Chair Calvert said he is just looking at who is on this Committee. He asked if it goes to Finance will that get all those who aren't on this Committee.

Ms. Snyder said it doesn't reach Councilor Wurzburger, but it does reach Councilors Bushee and Ives.

Chair Calvert said Councilor Ives will hear about it at Water Conservation. He said it boils down Councilors Wurzburger and Bushee, and asked Ms. Borchert to schedule those two Councilors as best she can.

MATTERS FROM THE PUBLIC

There were no matters from the public

MATTERS FROM THE CITY ATTORNEY

There were no matters from the City Attorney.

ITEMS FROM STAFF

There were no items from staff.

MATTERS FROM THE COMMITTEE

There were no matters from the Committee.

NEXT MEETING: WEDNESDAY, JANUARY 2, 2013

ADJOURN

There was no further business to come before the Committee, and the meeting was adjourned at approximately 7:10 p.m.

Christopher Calvert, Chair

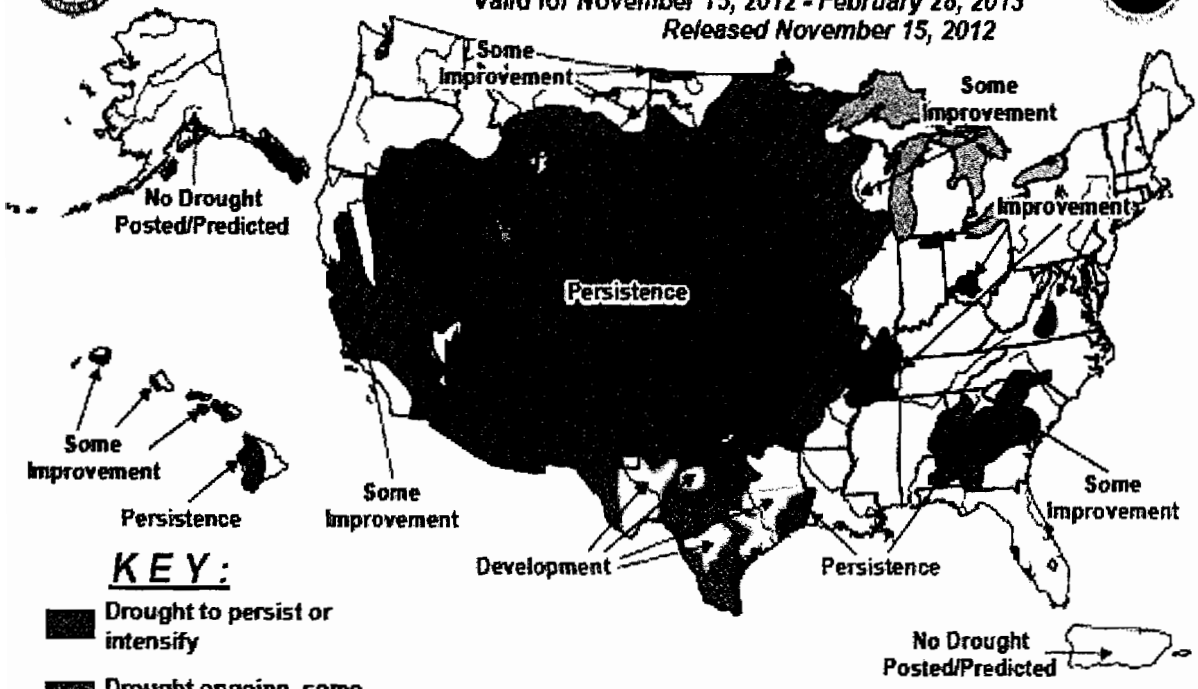
Melessia Helberg, Stenographer

U.S. Seasonal Drought Outlook

Drought Tendency During the Valid Period

Valid for November 15, 2012 - February 28, 2013

Released November 15, 2012



KEY:

- Drought to persist or intensify
- Drought ongoing, some improvement
- Drought likely to improve, impacts ease
- Drought development likely

Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Short-term events – such as individual storms – cannot be accurately forecast more than a few days in advance. Use caution for applications – such as crops – that can be affected by such events. "Ongoing" drought areas are approximated from the Drought Monitor (D1 to D4 intensity). For weekly drought updates, see the latest U.S. Drought Monitor. NOTE: the green improvement areas imply at least a 1-category improvement in the Drought Monitor intensity levels, but do not necessarily imply drought elimination.

Exhibit 11/11

City of Santa Fe, New Mexico

memo

DATE: December 5, 2012

TO: Public Utilities Committee

VIA: Brian K. Snyder, Public Utilities Department and Water Division Director
Rick Carpenter, Water Resources and Conservation Section Manager

FROM: Claudia Borchert, Water Resources Coordinator

RE: Discussion of the draft Reclaimed Wastewater Resource Plan (RWRP)

Item and Issue: Draft Reclaimed Wastewater Resource Plan

Included in this PUC packet is the Executive Summary, the Table of Contents, the three Reclaimed Wastewater (RW) portfolios and the Strategies/Implementing Actions (Section 8) from the draft *Reclaimed Wastewater Resource Plan.* To save resources on a draft report, the rest of the plan will be emailed to PUC members separately and is available on line from the Reclaimed Wastewater Resource Plan page at: http://nm-santafe.civicplus.com/index.aspx?nid=2576.

Guide to the plan:

- Section 2 discusses the current management and regulatory environment of RW and recognizes the potential risk associated with exposure to RW.
- Section 3 identifies the assumptions embedded in the plan.
- Section 4 describes the 40-year projections of RW availability.
- Section 5 lists the RW use options, identifies the associated RW flow budgets and estimates the value of the resource use.
- Section 6 analyzes and ranks the RW options based on criteria and a methodology approved by the governing body in May 2012.
- Section 7 builds three temporal (present, near-future and 2020s) RW portfolios based on the order established in Section 6.
- Section 8 lays out RW strategies and associated implementing actions.
- Appendices: Supporting documentation including a letter from the Santa Fe River Traditional Communities Collaborative, two resolutions from the Santa Fe County Commission, the scoring, and the initial options list.

Background

The process of updating the RWRP began in May 2011. The need germinated from the governing body's interest in allocating RW to new uses (e.g. Southwest Area Node Park and Tierra Contenta purple pipeline) at the same time that Santa Fe River downstream users became concerned by a significant reduction in the available stream flow. Furthermore, the projections and allocations of

Exhibit "2"

available RW made in the 1998 Treated Effluent Management Plan (TEMP) were based on gallon per capita of 170 (today the City's gpcd is 107).

To understand the RW concerns, analyze the resource constraints, and develop RW use recommendations, a "working group" (approved by the PUC) of diverse community stakeholders has been convening monthly, including representatives from the City's Wastewater Division, the City's Park and Open Space Division (river and golf course staff), the City's Water Division staff, Santa Fe County, the Wastewater Reuse Advisory Task Force (WRATF), the La Bajada irrigation community, Santa Fe Watershed Association, Jemez y Sangre Regional Water Council, Espanola Basin Regional Issues Forum, The Club at Las Campanas, and civil engineers. The RWRP is the product of this effort.

Key Policy Decisions

Ranking of RW Options:

A key decision is whether to accept the prioritization of RW options (third column) that resulted by applying the approved criteria (ensure community acceptability, improve water supply reliability, protect the environment, manage costs) and the associated performance measures (Section 6 of the RWRP) and then prioritizing non-discretionary uses (the uses ranked '1') and the current municipal uses (ranked 4-8).

Option Number	Option Name	Ranking with Required Uses and Past Policy	Ranking from Weighted Criteria
13	BW Permit Compl.	1	1
14	USFS Livestock Water	1	12
8	SF Country Club GC	1	15
1	MRC	4	3
10	On-demand Sales	5	6
12	Landfill	6	7
7	Marty Sanchez GC	7	9
2	SF Downs	8	11
15	Future Water Supply	9	2
3	SWAN Park	10	4
11	NM Game & Fish	11	5
4	SW Irrigated Parks	12	8
5	Downstream SF River	13	10
6	Upstream SF River	14	13
9	SF Equestrian Center	15	14

Note: The weighted rankings shaded show a change in ranking of at least 3 positions.

While the ranking method is designed to be impartial and reflect the values of the governing body and the community, this is the opportunity for the elected officials to inject preferences that may not be adequately reflected in the chosen screening method. Any changes to the ranking above will also impact the attached RW current, near-future and 2020s portfolio.

Downstream Santa Fe River

This analysis *estimated* the RW flow budget of the Downstream Santa Fe River from 0.5 million gallons pre day (mgd) in the winter to three (3) mgd in the summer. In 2012, a minimum of two (2) million gallons was released to the Santa Fe River. The RW allocation can be modified, depending upon what objectives the flow is trying to achieve (e.g. for viable agriculture, the amount may not be enough; for preservation of the Rural Protection Zone, the quantity may be too much). Any increase in the RW budget during the summer will result in a reduction in one or several of the currently higher-ranked RW uses.

Value of RW

The working group collectively agrees that RW is vital to helping Santa Fe met its current water supply needs. In an effort to promote conservation of the resource, treat the RW users equally, shift the cost of using RW to those the benefit from its use, and to generate revenue to offset RW production or to implement the recommendations of this plan, they recommend that all users of RW pay equitably for the resource.

Future Potable Water Supply

The analysis indicated that future potable water supply is important; the option ranked 6th before the RW options were rearranged to prioritize non-discretionary requirements and current municipal uses. If the RWRP is approved in it current form, over 2,000 acre-feet of RW is available for future potable water supply. This represents 75% of the year 2045 'gap' identified in the City's 2008 Long Range Water Supply Plan.

Next Steps and Schedule:

December 2012-January 2013

- Seek comments on assessment from the Water Conservation Committee and the River Commission
- Post draft report on the City's website
- Hold final public meeting

February 2013

- Seek approval of final draft RWRP from PUC, other committees and commissions, and the City Council

March 2013

- Implement recommended actions

Requested Action:
Staff is seeking feedback on the draft RWRP and the policy decisions embedded therein. Specifically:

- Does the ranking of RW uses on page 2 of this memo appropriately reflect the direction of this governing body?
- Does the RW allocation for Downstream Santa Fe option reflect the direction of the governing body, recognizing that it cannot be fully met during June under the current use prioritization?
- Does the governing body wish to initate the analysis to determine a rate for all RW users?
- Does the governing body wish to pursue the use of RW as supplemental potable water supply source?

REPORT

City of Santa Fe

Reclaimed Wastewater Resource Plan

December, 2012

Table of Contents

Executive Summary

Reclaimed wastewater (RW) is a vital water resource and helps the City of Santa Fe meet its current water supplies needs. It also may play a critical role in meeting future potable water supply needs. The need for this Reclaimed Wastewater Resource Plan (RWRP) arises from the circumstance that currently **not enough RW is produced during the peak summer irrigation months to meet all desired uses.** This shortfall will be exacerbated in the future, if the City decides to provide RW to anticipated uses that are not current users. To reach this conclusion, broad-brushed assumptions were made about the amount of RW 'needed' for the Santa Fe River. Not only have the Santa Fe River water rights not been adjudicated, the objectives for the river flows are ill-defined, the river system flow dynamics are poorly quantified, and the conditions of the river are continually changing in large part because of beaver activity.

Since the adoption of the previous RW plan (the Treated Effluent Management Plan, TEMP) in 1998, the quantity of available RW has been reduced by 29% because of the City's comprehensive indoor water conservation programs (Figure 2) at the same time that RW use has more than doubled (Figure 2). Based on the City's average production of 1,838 million gallons per year (5,640 acre-foot/year) over the past five years, this RWRP assumes that 1,825 mg/yr (5,600 af/yr) and 152 mg/mo (467 af/mo) of RW is available (Section 3) at a steady daily and monthly rate.

This RWRP considers the City's RW needs currently and through the 2020s. RW availability use is projected for a 40-year period. The roadmap of implementation actions will require multiple years to realize, depending upon available resources. However, the methodology used within this plan can be applied in the future when water resource circumstances arise that were not contemplated herein; as such, the plan has been constructed as a living document.

The RW use options considered in this analysis include current uses: direct sale for dust control and other construction purposes; irrigation of municipal recreational fields at the Municipal Recreational Complex (MRC) and the infield at Santa Fe Downs; irrigation of the Marty Sanchez Links de Santa Fe and the Santa Fe Country Club golf courses; dust control at the regional landfill; watering livestock on the Caja del Rio; irrigation of the education-scape at the New Mexico Game and Fish facility; and for Santa Fe River flows downstream of the City's wastewater treatment plant to support the ecosystem and local agriculture (Section 4). The analysis also includes potential future uses: irrigation of the turf at the Santa Fe Equestrian Center (also a previous use); irrigation of the Southwest Area Node Park; irrigation of turf at schools, the library and other open space along the Southwest Sector effluent pipeline; offsetting the surface water depletions in the La Cienega area caused by the City's pumping of the Buckman well field; piping RW upstream to the Santa Fe River; and future potable water supply (Section 4).

For this analysis, an annual, monthly and maximum peak daily flow budget for all of the RW uses was determined, either based on past usage, contracts, requests, or estimates (Section 4). The options were ranked according to criteria and methodology (Section 5) approved in May 2012, by the Governing Body. Using the ranking methodology and then prioritizing uses that are not discretionary, the options order as follows (the first three retain the same ranking,

because no distinction is made within these uses required by permits or contracts):

1. Buckman Well Field Permit Compliance- 33 mg/yr; 100 af/yr
1. US Forest Service Livestock Water – 1 mg/yr; 4 af/yr
1. Santa Fe Country Club Golf Course- 130 mg/yr; 400 af/yr
4. Municipal Recreation Complex – 46 mg/yr; 140 af/yr
5. On demand Sales for Dust Control, Construction, etc – 31 mg/yr; 95 af/yr
6. Dust Control at Regional Landfill – 4 mg/yr; 12 af/yr
7. Marty Sanchez Links de Santa Fe Golf Course – 127 mg/yr; 390 af/yr
8. Recreational Infield at Santa Fe Downs – 39 mg/yr; 120 af/yr
9. Future Potable Water Supply – approximately 717 mg/yr; 2,200 af/yr
10. Southwest Area Node Park - 19 mg/yr; 57 af/yr
11. New Mexico Game and Fish Educational Landscape – 2 mg/yr; 5 af/yr
12. Southwest Area Irrigated Parks and Open Space – 41 mg/yr; 126 af/yr
13. Downstream Santa Fe River – 600 mg/yr; 1,843 af/yr
14. Upstream Santa Fe River – 177 mg/yr; 543 af/yr
15. Santa Fe Equestrian Center – 41 mg/yr; 127 af/yr

**** *Note: The presented RW budgets are subject to verification*

These option rankings and their monthly RW flow budgets were then compared to the available RW (Section 6) to see if all or only some of the RW needs could be met. The ranking was performed in three different time frames - 'current', 'near-future', and 2020s - so that only those projects relevant to the different timeframes were included within them (Section 6); some RW projects, for example, will not be shovel-ready for five years; others no earlier than ten years. The same ranking method used herein can be used in the future, should new RW alternatives not considered herein emerge and need to be compared to those evaluated herein.

This analysis showed that all but two of the 'current' RW options can be met with the available RW at this time (Figure 9); the exception is that there are insufficient flows to meet the Downstream Santa Fe River alternative estimated three mg/d target flows in June and that insufficient RW exists to meet the Santa Fe Equestrian Center RW requests in May, June and July. In the near future (approximately 2018), the shortfall in RW will be even greater: using the Plan's criteria and ranking method, the Downstream Santa Fe River, the Santa Fe Equestrian Center, and the Upstream Santa Fe River option do not have adequate supply during the summer months.

By the 2020s, when the infrastructure and permits to use RW for potable supply may be ready, no RW is available for the SF Equestrian Center or the Upstream Santa Fe River, and there continues to be insufficient RW to meet the June target flows of three mg/d for the Downstream Santa Fe River. By the 2020s, using the RW that is not needed during the irrigation season, the Plan calculates that approximately 717 mg/yr (2,200 af/yr) of RW will be available for potable supply.

RW is a valued resource. This plan reiterates the recommendation of the 2003 Wastewater Reuse Advisory Task Force that all the users of the RW, municipal, non-municipal, and commercial facilities alike, pay for their RW use (Section 8.2). As a result, all RW users are

treated equitably and RW users have incentive to use the resource more efficiently. Additionally, the costs associated with using the RW resource shifts to those that benefit from the RW use (e.g. sport recreationalists, golfers) and the RW becomes a municipal asset that can help pay for wastewater treatment and/or to implement strategies identified in this plan.

The above ground use of the RW is currently regulated by the New Mexico Environment Department (NMED) through discharge permits. The City's wastewater treatment plant produces Class 1B wastewater, as defined by the NMED Ground Water Quality Bureau Guidance: Above Ground Use of Reclaimed Domestic Wastewater, which can be used for irrigating turf provided that public physical exposure to RW is avoided through access controls, application methods, and setback distances. While the requirements set forth in this guidance document are considered protective of public health and the environment, the water quality standards and requirements may change in the future at which time treatment processes may need to be added or enhanced. Although the current regulations provide safeguards, inappropriate use of RW may result in exposure risk.

To guide current and future decision-making regarding RW, this RWRP identifies the following strategies (Section 8), grouped into water supply, economic, water quality, operational/management, stewardship, and green themes. Section 8 also lists proposed implementing actions associated with each strategy.

Water Supply:
- Use RW as a non-potable water supply.
- Use RW to meet Buckman Wells permit offset requirements.
- Use RW to meet some of the City's future potable water needs.
- Measure RW production and use.

Economic:
- Value RW as a municipal asset.
- Use RW to generate revenue.
- Seek financial assistance to implement recommendations of this plan.

Water Quality:
- Produce high quality RW.
- Minimize the public health risk in land application of RW.

Operational:
- Optimize existing RW delivery capacity.
- Develop necessary and equitable contracts, resolutions, and ordinances.
- Determine shortage sharing and emergency guidelines.
- Build a RW reserve into RW allocation.

Stewardship:
- Provide adequate flows to the Santa Fe River.
- Collaborate and coordinate with downstream agricultural communities and other stakeholders.

Green:
- Use RW efficiently.
- Use low or renewable energy sources for RW transmission and distribution.
- Build resiliency and adaptation into RW planning and management.

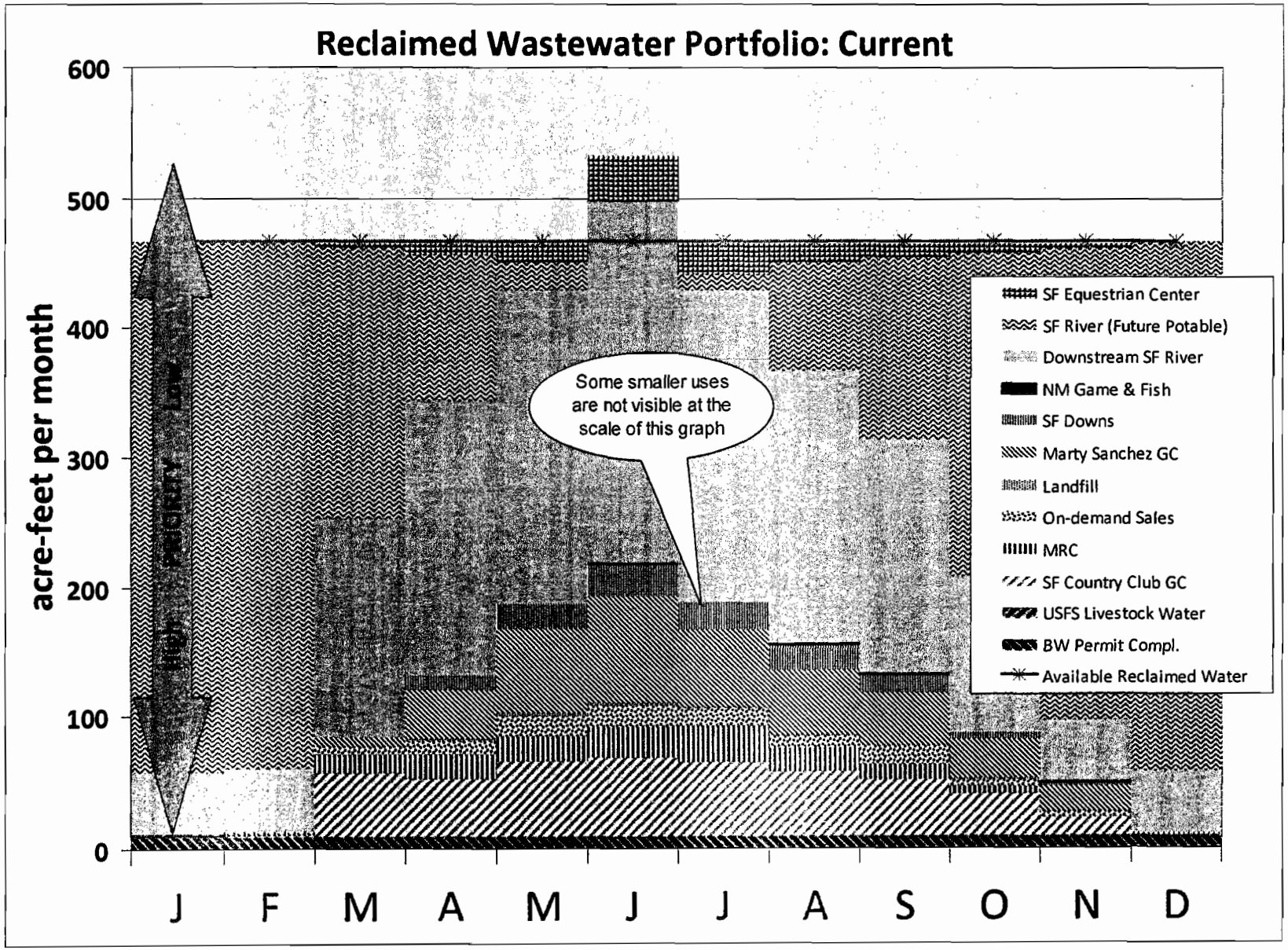


Figure 10: Current Reclaimed Wastewater Portfolio

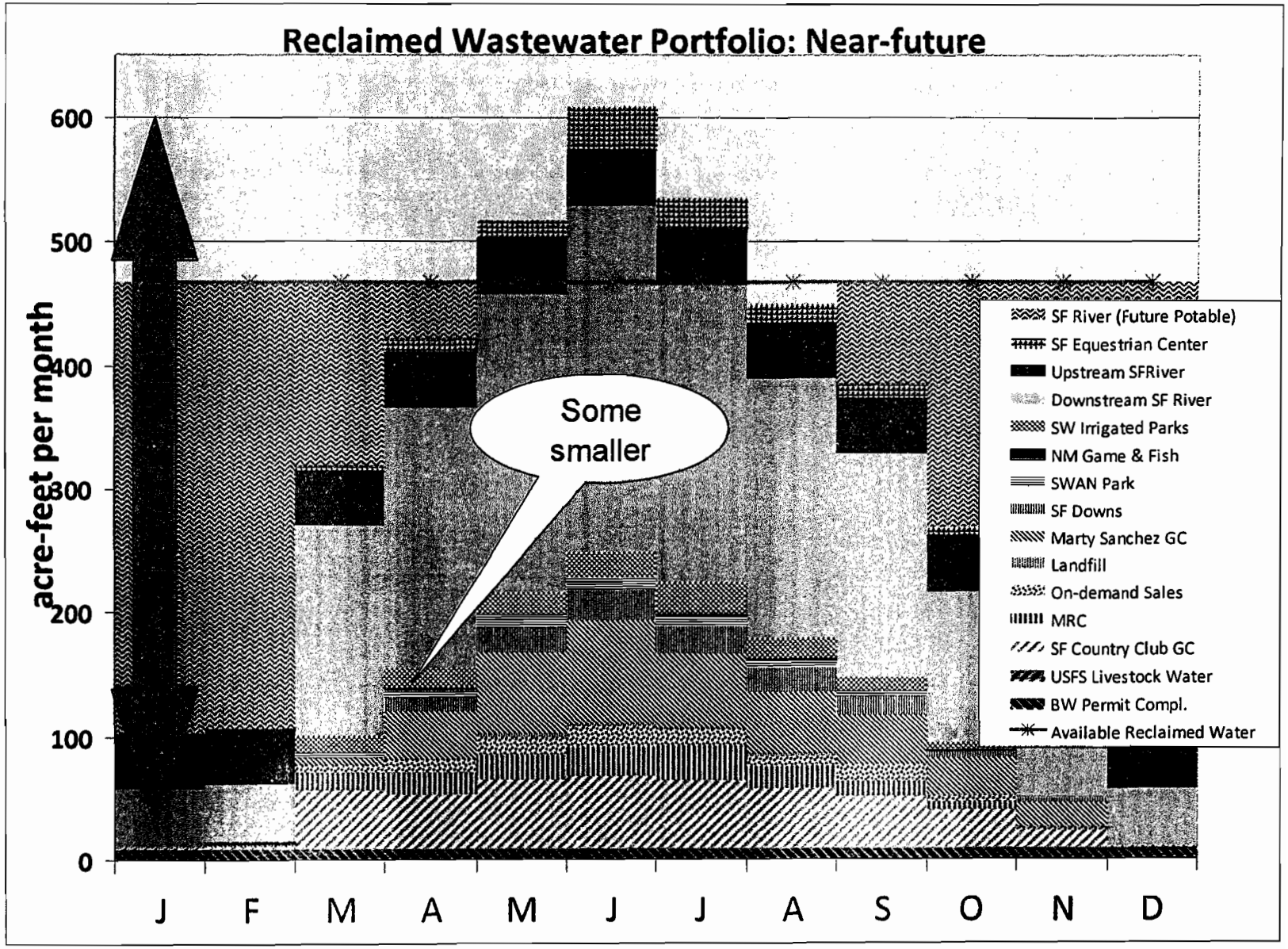


Figure 11: Near-future Reclaimed Wastewater Portfolio

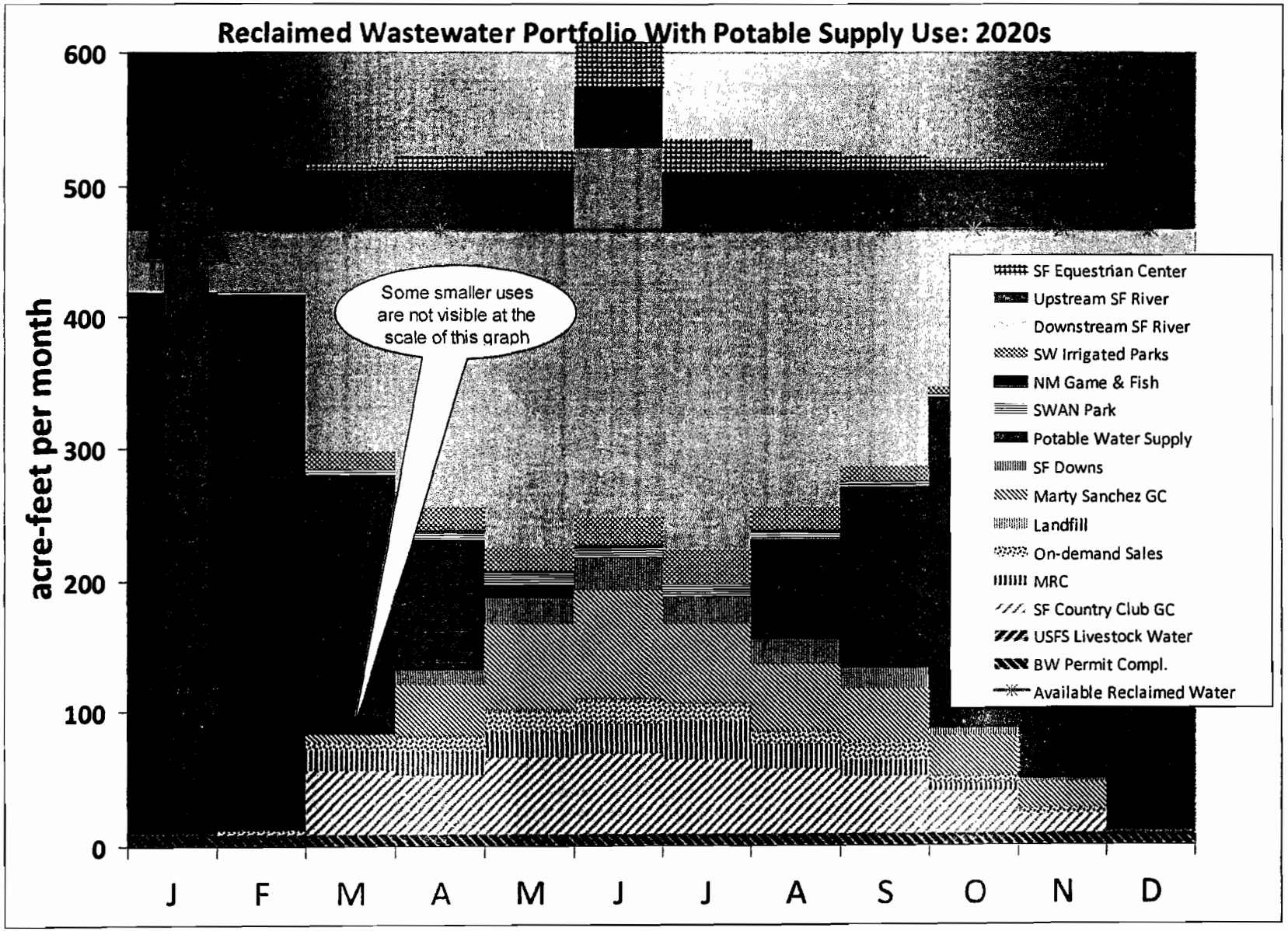
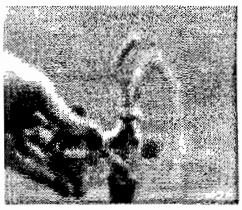


Figure 12. 2020s Reclaimed Wastewater Portfolio

8 Reclaimed Wastewater Resource Strategies and Implementation Actions

Based on the findings of this Plan, the City establishes the following strategies related to the use of RW currently and in the future. The strategies are grouped into the following themes: water supply, water quality, economic, operational and management, 'green', stewardship. Although the policies are categorized under these headlines, they are often interrelated.



8.1 Water Supply Theme

Use RW as a non-potable water supply. The City will continue to use RW as a water supply source. Currently 1.34 mgd (1,500 af/yr) of the City's 10.3 mgd (11,500 af/yr) annual demand (about 13 %) is met by RW, and as much as 17% is supplied during summer months. The supply is used for irrigating recreation turf (playing fields, golf courses, etc), construction, dust control, and with additional treatment could supplement potable drinking sources in the future.

Implementing Actions:

- Use the methodology herein to allocate RW supplies if and when they exceed the amounts assumed in this plan.

Use RW to meet Buckman Wells permit offset requirements. The City will work with the OSE to use released RW to offset the surface water impacts caused by groundwater pumping from the Buckman well field.

Implementing Actions:

- Provide OSE with hydrologic evidence of how the discharge of RW meets Buckman well field permit conditions.

Use RW to meet some of the City's future potable water needs. The City will use RW to meet some future potable water supply needs and recognizes that expeditious implementation of this RW use has hydrological and ecological benefits to the region's water supplies.

Implementing Actions:

- Conduct a feasibility analysis of the options and timing for using RW for potable supply (e.g. return flow credit pipeline to the Rio Grande, direct use with treatment, or aquifer storage and recovery).
- Determine water right requirement to use RW for potable use.
- Secure necessary water and environmental permits.
- Design and construct the chosen RW potable supply option.

Measure RW production and use. The City will accurately track RW production, use, and Santa Fe River discharges.

Implementing Actions:

- Develop a program to more accurately quantify RW use. The program may include RW meter reading and calibration requirements, standard RW recording and calculation procedures, and additional meters.
- Build a cooperative RW meter calibration program wherein qualified Public Utilities staff members calibrate meters of RW users for a nominal fee.
- Annually calculate unaccounted RW and if necessary identify ways to reduce RW losses.

8.2 Economic Theme

Value RW as a municipal asset. Currently, water and wastewater rate payers subsidize non-paying RW uses. As was recommended in the 2003 WRATF report, an equitable economic model entails all facilities benefiting from the RW paying for the use of the resource.

Implementing Actions:

- Require all RW users to pay equitably for the resource.

Use RW to generate revenue. Currently, the City's wastewater users through their payment of wastewater rates fund the collection and production of RW. The current RW pricing is not consistent (varies from no charge to $3.20 per 1,000 gallons of RW). Revenues collected by the sale of additional RW could be used to further defray treatment costs. One of the largest RW revenue sources, Las Campanas Golf Course, will no longer be paying $300,000 to $400,000 annually to the WWD beginning in 2012. Figure X graphically displays the revenues that could be obtained if only 50 percent of the RW was purchased at the $3.03/1,000 gallon rate, the recent revenues from Las Campanas and the anticipated revenues for all other sources.

Implementing Actions:

- The true cost and value of RW should be identified. Determine the historic, current and future capital cost for producing RW, managing RW use, the RW opportunity cost (either the market value or the value to City for other uses), and the RW economic value. Include factors like cost avoidance, recreational and environmental services, and aquifer sustainability.
- Determine a RW rate structure that considers the various economic factors above. The rate factor may differ for different types of users (municipal, regional governmental, federal government, commercial, etc.0, but the program should be systematic and transparent rather than arbitrary.
- Seek compensation for RW released to the Santa Fe River explicitly for the benefit of users downstream.
- Claim and market the RW stored in the aquifer near the WWTP from RW passively infiltrating via the Santa Fe River.

Seek financial assistance to implement recommendations of this plan. Many of the implementing actions in this Plan require financial resources to implement. Some funding may be available within current City departmental budgets; much will need to be secured through local, state, federal and non-profit organizations grants and loans.

Implementing Actions:

- Seek grants and low-cost loans to implement the recommendations herein from federal (e.g. Bureau of Reclamation Title 16, WaterSMART program), state (e.g. Water Trust Board, 319) and non-profit (e.g. River Network) sources.

8.3 Water Quality Theme

Produce high quality RW. The City's WWTP produces RW that meets the state regulatory requirements and federal guidelines. Periodically and as needed, the WWTP upgrades its processes and facilities to meet new regulatory requirements and enhance the quality of RW produced. The development of membrane filtration technologies over the past 10-years has resulted in a movement towards higher quality RW effluent.

Implementing Actions:

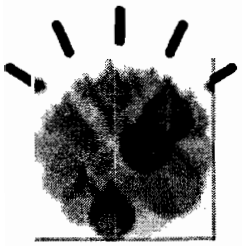
- Monitor the development of RW discharge standards in other states and monitor EPA's adoption of more stringent guidelines in the future.
- In order to better assure meeting bacteriological discharge requirements and to minimize potential adverse health effects due to exposure of RW, consider appropriate advanced treatment technologies or improvements to the multi-media filtration and disinfection unit operations. This would also permit the WWD RW to meet Class 1A Reclaimed Wastewater rather than the current Class 1B standard.
- Support existing household pharmaceutical disposal program to decrease pharmaceutical products in the City's wastewater, RW, and Santa Fe River.

Minimize the public health risk in land application of RW. Because of inherent RW exposure risk, federal and state regulations dictate under what conditions RW can be used for irrigation. While the WWD produces RW and is required to meet the conditions of the discharge permit, the division does not oversee the land application

Implementing Actions:

- Cooperate with RW land applicators to assure discharge permit compliance.
- Review and update protocols and Best Management Practices for municipal entities that irrigate with RW.
- Collect and centralize use data, compliance reports and other RW use related documents from municipal RW users.
- Add release of liability statements into contracts with non-municipal RW irrigators.

8.4 Operational and Management Theme



Optimize existing RW delivery capacity. Currently, no standard operating procedure exists on how to allocate daily RW among the users. Additionally, some key infrastructure may assist in the ability to meet multiple, often competing demands for RW. Enhanced management allows better use of the resource.

Implementing Actions:

- Develop an RW diversion and delivery protocol identifying which users can divert when, how much, and for how long.
- Conduct a RW infrastructure improvement study to determine how existing or new RW infrastructure can be optimized to best supply existing and future (e.g. SWAN Park) RW users.
- Consider how increased storage (e.g. the 2 million gallon RW tank), other infrastructure improvements, automation, variable frequency pumping, etc. can be used to achieve equity, timing, and shortage-sharing objectives.
- Identify if the Las Campanas RW pipeline can assist in creating system redundancy or optimization and seek necessary use agreements.

Develop necessary and equitable contracts, resolutions, and ordinances. Current RW users receive RW under varying circumstances, rates, and conditions.

- Unify contract provisions, renewal processes, and RW rates.
- Seek compensation for all RW use. In instances where the municipality or another entity does not pay for RW, recognize the value of the RW being provided
- Streamline process for short-term contract renewal.
- Seek short-term, non summer month RW contracts.

Determine shortage sharing and emergency guidelines. Currently, no guidelines exist on how to curtail RW during shortages or emergencies, as recommended within the WRATF Final 2003 Report. Additionally, no provisions exist for back-up water supply for some uses.

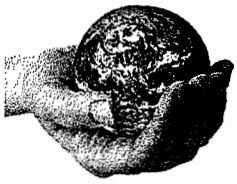
Implementing Actions:

- Develop criteria, strategies, processes, and protocols for addressing shortages, water quality changes, back-up supplies, and emergencies to better adapt to future conditions.
- Revise RW use agreements to include sharing shortage parameters, water quality constraints, and other circumstances of non-diversion.

Build a RW reserve into RW allocation. A RW water reserve would help mitigate the natural daily and seasonal fluctuations that occur in RW production. The reserve would also provide some water for unforeseen conditions.

Implementing Actions:

- Allocate between 1-5% of the total monthly RW and/or RW storage to a reserve account, perhaps storing water in the regional aquifer



8.5 Stewardship Theme

Provide adequate flows to the Santa Fe River. The City recognizes the environmental, recreational and water quality services provided by the Santa Fe River and specifically the Santa Fe Rural Protection Zone.

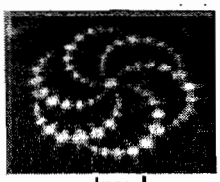
Implementing Actions:

- Determine the minimum and target flow requirements to maintain the ecological services provided by the Rural Protection Zone.

Collaborate and coordinate with downstream agricultural communities and other stakeholders. The City recognizes that the RW from the WWTP provides water that downstream agriculture has become dependent upon since natural spring flows in the area have decreased.

Implementing Actions:

- Provide WWTP output data regularly to interested parties.
- Collectively develop and implement a stream flow monitoring program to better understand water budgets in the La Cienegilla, La Cienega, and La Bajada region.
- Convene a public workshop with water right experts to develop a common understanding of the water rights issues and to better understand the City's legal obligations.
- Develop an operating arrangement with daily, monthly and annual stream flow targets, within the adopted RW priority system.
- Participate in planning processes of area communities, encourage rural-urban relationships, and seek multi-party win-win solutions to issues identified.



8.6 Green Theme

Use RW efficiently. Like all others water resource, RW is precious. By using RW efficiently, the number of RW uses can expand.

Implementing Actions:

- Initiate a required irrigation efficiency analysis for each RW user. Consider the efficacy of converting irrigated recreational areas to artificial turf and the use of more advanced irrigation technology.
- Institute annual, monthly and daily water budgets and maximums for each RW user and, to the extent possible, define the use quantity, either by contract or governing body action.
- Provide incentives and resources for RW users to increase efficiency.

- Identify locations where irrigation of RW can be reduced or eliminated (e.g. implementing more efficient irrigation systems, by monitoring application rates by evapotranspiration (ET) or by artificial turf replacement)

Use low or renewable energy sources for RW transmission and distribution. Some RW uses can be served primarily via gravity. Others require some or significant pumping. As little energy as possible should be used to transmit RW from the WWTP to its use location.

Implementing Actions:

- Size infrastructure to optimize energy use.
- Promote RW uses that require less transmission power.

Build resiliency and adaptation into RW planning and management. While RW production is relatively immune to the impacts of climate change, RW irrigation demand will likely increase under hotter and drier conditions. The management of RW needs to plan for, adapt, and thus become more resilient to projected climate change effects.

Implementing Actions:

- Determine projected climate change impacts on RW demand and build into RW budgets, management, and operations procedures.
- Bank excess RW in local aquifers, particularly during the fall and spring shoulder months and throughout the winter.