



Agenda DATE 2/20/13 TIME 9:50am
SERVED BY Brian Drypolder
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SANTA FE RIVER COMMISSION
Thursday, February 28, 2013, 6:00 – 8:00 p.m.
City Councilors' Conference Room, City Hall
200 Lincoln Avenue, Santa Fe, NM
505.955.6840

1. ROLL CALL
2. APPROVAL OF AGENDA
3. APPROVAL OF MINUTES FROM JANUARY 10, 2013
4. INFORMATION

NO ITEMS

5. DISCUSSION/ACTION ITEMS

- a. Discussion: Presentation by Jan-Willem Jensens of Ecotone, regarding a survey and report on wetlands in Santa Fe County – "Keeping Santa Fe County Wetlands Viable and Functioning, A Wetlands Action Plan for Santa Fe County" prepared in partnership with the New Mexico Environment Department's Surface Water Quality Bureau Wetlands Program with additional support from Santa Fe County. (Jan-Willem Jensens)
- b. Discussion and Action: Requesting River Commission approval of a resolution to request that the City of Santa Fe seek the approval of the Office of the State Engineer to acquire and use water rights for release in the Santa Fe River, and to confirm that the water may be released for river flows; and retain special counsel to prosecute the application for such approval. (Commissioner Richard Ellenberg)

6. MATTERS FROM COMMISSIONERS, MATTERS FROM SUB-COMMITTEES
7. MATTERS FROM STAFF
8. CITIZENS COMMUNICATION FROM THE FLOOR

ADJOURN

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<i>Approval of Minutes: January 10, 2013</i>	<i>Mr. Ellenberg moved to approve the Minutes of January 10, 2013 as presented, second by Ms. Romero-Pike, motion carried by unanimous voice vote.</i>	2
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application for such approval. (Commissioner Richard Ellenberg)		
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**SANTA FE RIVER COMMISSION
MINUTES
Thursday, February 28, 2013 - 6:00p.m. – 8:00 p.m.
City Councilors' Conference Room, City Hall
200 Lincoln Avenue, Santa Fe, NM**

1. ROLL CALL

The meeting of the Santa Fe River Commission was convened by the Chair at 6:00 pm, City Councilors' Conference Room, Santa Fe, New Mexico. A quorum was present at time of roll call.

Present:

Jerry Jacobi
Richard Ellenberg
Phillip J. Bove
Melinda Romero-Pike
Dale Doremus
Jim Cutropia
Sam Gerberding

Not Present

John R. Buschser

Others Present:

Claudia Borchert, Staff
Brian Drypolcher – Staff Liaison
Nina Wells, Environmental Dept.
Francois-Marie Patorni, SF Watershed
Association
Maryann McGraw, NM Environment
Department
Jan-Willem Jansens, Ecotone

Fran Lucero, Stenographer

2. APPROVAL OF AGENDA

Mr. Drypolcher requested to add:

1. City Council Adoption of River Fund Amendment
2. Message from Mayor Coss

Mr. Ellenberg moved to approve the agenda as amended, second by Mr. Cutropia, motion carried by unanimous voice vote.

3. APPROVAL OF MINUTES FROM JANUARY 10, 2013

Mr. Ellenberg moved to approve the Minutes of January 10, 2013 as presented, second by Ms. Romero-Pike, motion carried by unanimous voice vote.

4. Information

City Council Adoption of River Fund Amendment

Mr. Drypolcher reported that the amendment passed unanimously with some discussion. Discussion was the reoccurring question from Councilor Calvert and others – “are we really limited with the money collected so far; in respect that the funds can only be spent on the acquisition of water rights.” The question was if they could get around this or seek a new legal opinion. The legal opinion still stands that money collected prior to this amendment to the ordinance can only be used for water rights acquisition. Councilor Bushee brought forth the question on beavers and I didn't quite have a satisfactory answer for her. She asked if the improvement to habitats would affect the beavers or we would improve habitat and the beavers would come would we get rid of them. There was also a question of substance, the amendment passed and it says that in addition to

water rights acquisition the money can be used to fund activities that improve flows in the Santa Fe River in ways that enhance the eco-systems of the river and its corridor eco-systems. Councilor Dominguez asked that a condition be imposed, that a project list be developed, things we would like to get done on how to spend the money and that the council be able to weigh in on how this money is spent.

Mr. Ellenberg said that it was clear the city wants to have this money spent in more than acquisition. It seems that they were looking for some environmental way to spend it on the Rio Grande. Mr. Ellenberg said that if we are going to re-stimulate the fund, it has dropped about \$35,000 a year for the last 2 years, we need to send a mailing and discuss with the Water Company and to do that we need a project so that people find it attractive. Even if we have a year to raise money it is going to be a \$20,000 to \$60,000 range project. We need someone, maybe staff to come up with ideas of what we can do, we will then take to city council and possibly present this as a resolution. The Procurement Code requires Council approval over \$50,000. The public should be informed possibly through their water bill. We need a project that would stimulate the interest to the public for the fund.

The Chair asked if we should put information in the water bills before we come out with a project and give them an update. We have not provided an update since the program started.

Mr. Ellenberg feels that we should wait until we have something. We should do a press release and the mail filler in the water bills once the project is identified.

Ms. Romero-Pike asked if some of those monies could be spent in conjunction with the trails along the river, could that be tied in together.

Mr. Ellenberg said that it would have to be a separate project but it would make sense for it to be tied in to something else the city is already doing.

Ms. Romero-Pike said that the reason for this question is because of the project with the National Park Services – Santa Fe County and the promotion of the Camino Real will start with the DeVargas Park over by Guadalupe, the trail is going to be in continuance all the way to the new park dedicated and called the Camino Real Park. The county has been working on that project; Ms. Romero-Pike will bring additional information to the next meeting.

Mr. Ellenberg requested from staff that they bring back by the next meeting, ideas for the commission to review. Possibly pick something that is visible and that people can associate with. Another suggestion would be a matching program if someone were interested in doing something on the river.

Mr. Bové inquired about Youth Works. Youth Works is being funded by the Streets and Drainage Division. They probably using some of their money from the \$3 storm water fee and the water bill, right now their contract has had a roll over funding source.

There may be an article in the Journal North about new opportunities. There could be a way to get the word out on getting the word out. Brian feels we can get something out in general vs. a detailed announcement later on. Brian would like to get an announcement

out and then follow up with more specifics. Ms. Romero Pike would like to see the PR broadened beyond the city.

The Chair stated that we should meet in the next 2 weeks and work on this mission once staff comes back with the recommendations.

Message from the Mayor (covered below under staff communications)

5. DISCUSSION/ACTION ITEMS

- a. **Discussion: Presentation by Jan-Willem Jensens of Ecotone, regarding a survey and report on wetlands in Santa Fe County – "Keeping Santa Fe County Wetlands Viable and Functioning, A Wetlands Action Plan for Santa Fe County" prepared in partnership with the New Mexico Environment Department's Surface Water Quality Bureau Wetlands Program with additional support from Santa Fe County. (Jan-Willem Jensens)**

Maryann McGraw, Wetlands Coordinator for the NM Environment Department

Ms. McGraw runs a program for the NMED Service Quality Bureau called the Wetlands Program which is entirely funded by competitive grants in the Environmental Protection Agency. These grants are to develop the program and increasing the capacity in the wetlands program. There are four core elements; 1) restoration, 2) developing water quality standards for wetlands, 3) regulation of wetlands and 4) monitoring and assessment. Program has been in existence since 2004. It was built as an off-shoot of the Water Quality program and these grants that are received are to improve wetlands. In 2004 Ms. McGraw wrote a grant to the EPA which was for a Wetlands Action Plan Program which was to go out to the Watersheds where we are already doing water quality improvements and focusing on the wetlands. One of our other programs, Clean Water Act _____ program, provides money to watershed groups to develop plans to improve water quality.

The Wetlands Action plan develops plans to improve wetlands. The Water Quality Plan includes the entire watershed. If you can improve water quality, for instance going to the top of the Santa Fe Watershed and thinning because you are going to prevent future impacts from fire on the watershed which would impact water quality, that is included in that plan. She said that their plan focuses primarily on the wetlands. They started out and were very successful with the Galisteo Watershed Plan and received additional funding without even competing to develop that plan for the Galisteo Watershed as a National pilot. They finished that plan and then Jan-Willem was hired by Earth Works and now Eco to do a plan for the entire Santa Fe County and is close to having this plan complete. When they proposed their plan to EPA, Santa Fe County was a partner, they offered \$100,000 in watershed restoration for wetlands as a match to develop this plan and they have come through by completing wetland restoration at Arroyo Hondo, Escalante Springs and a number of other initiatives. The plan that Jan-Willem is soon to complete gives you all the background information about the geology, the vegetation, a pre-historic account of what water have been used for. One thing we don't have that we would like is all of the wetlands mapped and will apply for a grant to get this done.

Another thing being worked on as a program is assessing wetlands because it hasn't been done much in the state. We hope to use our assessment metrics and methodology to assess wetlands in Santa Fe County. The bottom line, upshot of the wetlands action plan is to develop a list of needs in the county and potential projects and where there is short comings

and data and things that you can actually do in the county to improve the wetlands. When you are talking about needing some projects; as we continue to prioritize we will have this list of projects that you could come and pick from. A additional thing we found that was very advantageous to the Galisteo Water Wetlands Action Plan was that we described 12 projects and we actually had money in that grant to go out and assess those wetlands and since that time all those projects have been done because they were shelf ready. I can't tell you how far with this one because we don't have all the wetlands mapped, we have about 11 finished in the state and we are working on one in the upper Pecos right now, one in Gallina and we are working all over the state.

The Chair asked, "you say you are not done, has the Santa Fe River had something done?"

Ms. McGraw: Parts of it has been done, I am not sure if we have done the entire watershed.

Ms. Romero-Pike: It is my recollection from past minutes that it made reference to Agua Fria and La Cienega as being part of the wetlands.

Ms. McGraw: Yes, we also focused on some other areas where we had done more work but we are not finished, we could add additional information. We have mappers' right now that are doing the wetland sites, Sangre de Cristo and others. The wetlands we are talking about are the flood plains of the rivers; we are talking about a playa like San Cristobal Playa. There are a number of different types of wetland in the county and we hope to protect them and provide information to protect and restore the environment. This is one of the things we would love to have you work with us on and keep the updates.

Ms. Romero-Pike: In the area where I live they use to have an actual spring but with the draught and excavation on the river and I imagine the aquifers went deeper and deeper. Is there a way that those can be refurbished again?

Ms. McGraw: We actually did a geo-hydrology study which is part of the same project, but it is in the La Cienega area. That particular study shows that over the last 40 years there have been declines in the water table and this has been done by the NM Tech folks, Bureau of Geology and Mineral Resources and there it actually shows in their study that there has been some recharge in the Santa Fe River over time. So there are, if you do extensive geology and hydro-geology there may be ways to recharge aquifers, it is complicated and costly. These are some of the types of things we are looking in to. We are not only looking at certain flows or precipitation, we are also looking at ground water and ground water recharge.

Ms. Doremus: For clarification, are you saying that the Wetlands Action Plan will come out before the assessment and mapping is concluded?

Ms. McGraw: Unfortunately, yes, because what we do in the wetlands action plan is we see where the shortcomings are in the state or within the watershed that we are working on. To share with you, the National Wetlands inventory which is a part of the US Fish and Wildlife Service, they are responsible for mapping all wetlands throughout the United States. If you look at one of their maps they really focus on the east coast and coastal areas and the west has been neglected over the years this is why our program is taking the initiative to get money to map everything.

Ms. Doremus: Does the Wetlands Action Plan get updated once that work is completed? It seems that a lot of the recommendations or the projects might come out of what is found after

the wetlands assessment mapping is complete. It seems like it would be hard to have specificity on the recommendations without having that done.

Ms. McGraw: The only thing that I think is hard to do without having all that mapped is prioritizing. If you have all the wetlands mapped and you have all wetlands assessed then you can say; “unconfined river wetlands are impacted the most and they need the most help.” Or, “this big segment of wetlands that you have is the only one in the county that attracts water fowl and if you don’t protect it, it will be a whole eco system.” That is the nice thing of having the map; but in spite of having the map people know where wetlands are and what we did with the Galisteo where the mapping was done, we knew by the watershed groups and other sources of information that there were these places that had wetlands.

Jan-Williem: In fact, the wetlands mapping and assessment that Ms. McGraw is talking about came out of a different project funding that we had for the Galisteo pilot project and we had the opportunity to submit our request for funding to the EPA, which we did in 2007 and that generated the project that we call Comprehensive Wetlands Restoration and Protection of Santa Fe County. That brought some innovation to the idea like we did in the Galisteo basin and a sub-set of that was the writing of this wetlands action plan. It also included fire restoration sites throughout Santa Fe County and monitoring of those wetlands, providing a technical field guide between the geo-hydrological studies for the La Cienega area. It was a 17 task project and one of the tasks in the comprehensive part of the project was to integrate all of these things and the lessons learned along the 4 or 5 years and we have done that in the Wetlands Action Plan. It is a project by itself not just for wetlands action plan, it is much broader. The Wetlands Action Plan for Santa Fe is really the first and ideally it should be updated once more information comes on line.

Summaries of the Plan were distributed as Jan-Willem is still working on the Plan. (Exhibit A) - added in the document are several color maps, one is a county map that gives the overview of the streams and watersheds in Santa Fe County and several geological maps as we understood that you were interested in more conversation about the lower Santa Fe River below the wastewater treatment plant in La Cienega area. That pertains more to the information that was gathered in the geological study for that specific area.

Synopsis of the Wetlands Action Plan:

The purpose of the plan is really to give guidance to different stakeholders; public and private stakeholders, mostly professional planner and land managers regarding the health of wetlands, information gaps that we had and how to manage wetlands in the future. We hope to stimulate dialogue and in the future more coordination between different agencies that have a stake or a role in managing wetlands. The definition of wetlands for the state of New Mexico is rather broad. It is basically anything that is wetted from time to time.

Ms. McGraw: I know that the Corp was here last time and they require a hydrology at the surface, the plants have to be adapted to anaerobic conditions and the soil has to show anaerobic features. We are more eco-system based, for instance in a river corridor the entire flood plain, anything that is connected to either the surface flow or the base flow of the river is included as a wetland. We go beyond that because when we do our wetland assessment we find that if you stop at the edge of the flood plain or the river corridor that you are still going to have impact for that wetland without a buffer zone. Because there will be influences right adjacent to a wetland that will reduce the functionality of that wetland. If there is a buffer beyond that, there is at least some sort of way of protecting the wetlands and its functions and eco-system services.

Jan-Willem: What we found in this big project is that there are huge holes in the information available. We have limited information about what wetlands you can have in Santa Fe County, where they are, what the status is of those wetlands and in many cases they are not specifically mapped; that means that in larger composite maps of the area they may not even be identified. Better and more public accessible information about wetlands is very important so that eventually we can get to the decision making and planning regarding wetland restoration and protection. I found that wetlands are not explicitly mentioned in many code documents such as city code, county code. There is some attention paid to the wetlands but not an explicit protection set of measures like buffer zones, like potential continuity for water flow as well as migration through streams and wetlands. In the City Code there is some language devoted to it which was updated one year ago in Chapter 14 but a lot is left to the discretion of city staff. In the county code it has been updated; the draft of last September didn't have much of it at all. The most comprehensive protection measures that I found in code were in new management of land in BLM in terms of buffer zones and protection.

There is a great need for continued restoration and protection of wetlands in on the ground pilot projects. So a list of projects like you just discussed would be really useful. If I could include that in the end of the chapter on Action Planning it would be useful to add to the list as potential actions that could be taken.

We have been talking back and forth about whether it is possible to develop some form of standards so that wetland standards could be developed so you could measure more where the wetland conditions are being met through protection and restoration or not. First we need to do a major push on wetlands assessment and mapping as Ms. McGraw has stated before we can even move towards the standards.

Ms. Doremus: On the standards, are we talking local or state standards?

Jan-Willem: Eventually it would be state standards.

Ms. McGraw: There are, the default Water Quality Standards are provided for the wetlands because wetlands are water of the state. Anti-degradation applies to wetlands, so we do have some measures of protection. So we do have standards set but what we want to do eventually is have a narrative standard based on our assessment data that says that a wetland should be in this type of shape in order to provide all the functions, services and benefits to the human population. We want to have it specific to wetlands. That would be a goal to improve and keep the wetlands in a certain shape. That is a long ways down the road because we have to have the data to back it up and then we need to have a report to include in the Water Quality Standards. But we do have something.

Chair Jacobi: When you say down the road, do you have an estimated time of completion.

Ms. McGraw: The thing is what we are doing now as a program is we are getting ready; we are collecting the data as fast as we can get the money to do it. In fact, in the next month I will apply for two more grants which will provide several hundred thousand dollars if I get awarded. We will then start developing narrative standards and probably for river wetlands first because they seem to be the most impacted throughout the state and then we are going to be ready. When the political time comes and we have some support we would then go through the Water Quality Control Commission and suggest that those standards be included. What we are doing right now is getting ready and that is what EPA wants us to do. They

want us to be ready and that is what these wetland action plans are supposed to be doing, being ready for when opportunities arise. Right now we have been working on this for eight years and there is only one watershed.

Jan-Willem: Based on preliminary information, mostly from the Galisteo Watershed where we have done more in-depth work but also from the work that we have done in the last 4-5 years, we know that a lot of wetlands experience some form of stress. That can be developments, encroachment, and extraction of ground water so they are actually drying up. There is stream modification and the rivers are impacted. There is evaporation losses maybe as a result of climate changes, vegetation removal and basic species and erosion and in some cases risk of fire. In a recent collaboration that the state has with the Natural Heritage Program at UNM, they had the stressors list in the NM rather assessment method and that helps in the future identify what those stressors are and get more of a status report as to what needs to be done. Specifically for the status of wetlands below the Wastewater Treatment Plant there are several; and I mention that as Brian hinted he might be interested in that. The wetlands there are the wetlands along the river that have been restored in part in the last 10 years or so. There are interesting older wetlands in Cieneguilla that are slope wetlands or springs that come up from the side and are not necessarily fed by the Santa Fe River or maybe a combination and a series of wetlands in the La Cienega area that are springs and fed by recharge as a result of a unique geological situation there. These wetlands continue basically all the way in to the canyon.

Under this project that we are basically presenting here, mapping was done in the La Cienega area so unlike many other places in Santa Fe County we have more detailed information about the types of wetlands and their functions for the La Cienega area including Cieneguilla. Many are on private land, some on county land or BLM. There are still some issues as we have a lack of regulatory instruments; as said, no buffer zones, limited monitoring, the impacts and fluctuation of ground water and surface water flows. There is very limited enforcement if somebody has a negative impact on wetlands what we can do unless the problem is detected and reported and get placed in to some system and people get after it but at this point it is very difficult to enforce.

There are some protection policies that the state has and the Army Corp of Engineers.

Ms. McGraw: We have our 401 certification which is sort of a Clean Water Act but that is when there is a 404 permit then we have to certify that permit that we are not inspecting water quality. That is our best instrument right now but the rest of it is voluntary.

Jan Willem: There were some findings of interest. In the Santa Fe Girls School project that is in the historic part of the Santa Fe River. Ms. McGraw added, that the SF Girls School actually owns a piece of property on the Santa Fe River and the 7th and 8th grade class do restoration and monitoring and are led by Mr. Barnes who is a good Scientist. They did a presentation for the wetlands round table; we have a state round table that we hold a couple times a year and all of the agencies, state, county and city are invited. We get about 30-40 people at these meetings. The Girls school showed data that they collected on their property - pre and -post beaver and it showed that when they had beaver on their restoration property that the local water table was rising and being restored and as soon as a beaver dam was removed they got discharge from the local water table back in to the river and there was an actual decline over time, it was fairly rapid. They showed with good data and they were presenting to some very good scientists that the beaver actually helped restore local ground water table and they also helped support the wetlands in the area. On the other hand the geo-

hydrology study they took data from one year and showed that there is a drop in the local water table based by evapo-transporations characteristic of plants and it is seasonal. In the winter time the water table comes up and in the summer time when the plants are using the local water table there is a decline.

Jan-Willem: To go to the conclusion of the Wetlands Action Plan basically is that it is very important that the county starts working on building out these codes and focus on wetland regulations that protect wetlands. We have worked really hard with the county to bring language to the code and we will meet with them next week so we can clarify suggestions and see if they can find a place for the code. We have made very specific language and recommendations to the specific articles in the code and it has much larger ramifications not just for the hydrology but also for ecology and wildlife functions of wetlands. We had significant influence on the flood waters in the county as we found several years ago very prohibitive to doing wetland restoration projects on the ground. That has changed and basically has been improved in the new code; that was an interesting outcome of this project. When I look at Chapter 14 changes for the city (The Land Use Code) and have had several conversations with staff and we came to a good agreement that Chapter 14 with all of its provisions is actually good as long as staff discretion is beneficial to implementation and protection and restoration actions. The ingredients are there for making it work. It is very important to have local restoration and protection projects especially to create more buffer zones both in the city and the county and on public lands like the State Land Office and BLM. BLM is in favor of that and prescribes it in its new management plan. For the county, I have not seen it yet; for the city it is possible but it is a lot more difficult because of the build environment and the possibilities of having buffer zones is limited. That is something that the Santa Fe River committee might want to look at if it is within your purview.

Eight goals that are very strongly tied to the states goal setting for wetlands and all of these goals have sub-actions. Basically a proposal could be written on a sub-action on each of the goals.

1. Complete an information baseline about wetlands in Santa Fe County.
2. To establish a monitoring program for data upkeep on status and existence of wetlands in the county and to share and disseminate that information.
3. Identify Santa Fe County as a pilot area to live by procedures and to strengthen policies to protect wetlands through regulatory measures.
4. Support federal, state, tribal and local government agencies in the enforcement of regulations and offering comments during public review processes or proposed actions that could potentially affect wetlands.
5. Achieving restoration and protection of high priority wetlands in the next 10 years – we need to first have the information about the wetlands and prioritize them. The Wetlands Action Plan lists a template of prioritization of items that need to be looked at in a qualifying way and identifying the priorities.
6. Further developing support in institutional capacity and restoration for wetlands.
7. Educating the public, possibly adopting a wetland program in the county.
8. Water quality standards for wetlands and building on the existing ones with the help from these assessment programs that are underway.

That is basically what the Wetlands Action Plan proposes and offers a calendar of what we would like to achieve in the next 3-years based on things that are already on-going.

Q: In your discussions with the county, are they receptive to updating their codes for implementation of buffer zones and those kinds of things?

A: We will need to find out, there is one commissioner that was very supportive; it starts really with staff. If staff sees how it fits and how they can defend it then it can go a longer way. They have been helpful in implementation of this larger project as it was collaboration with Santa Fe County. Where the rubber meets the road is when the Code is written and we are still in that phase of figuring that out.

Q: Are there any other places in New Mexico where that has been implemented?

A: This is the most receptive county so far. Rio Arriba County had some substance ordinances that restrict the living flood plains. The code for Rio Arriba County is more prescriptive in things like buffer zones, connectivity, flood plain management and it is because they own so little land. Most of their land is in flood plains so it is very important to protect the land that they can protect because 85% is out of their control because it is public land.

Q: Under what department do these staff people fall under in Santa Fe County?

A: County Planning and Land Use Department. We also work very closely with the County Open Land and Trails program because two of the pilot projects were implemented on the ground was on county open space land; one was in Cerrillos hills in collaboration with State Parks and the other one was in Arroyo Hondo open space.

Claudia Borchert: You stated that you are open to ideas; I know we tried to find money to map – it accomplishes a lot of your goals here. I was interested in your goals; you don't talk about the connection between ground water use and the destruction of wetlands.

Jan-Willems: It is described deeper in the Wetlands Action Plan and also I advised that there should be a monitoring system put in place so we understand better the relationship between water pumping in the city and the county and wetlands health in the La Cienega area. That is one of the sub-goals at that level.

Jan-Willem: It is addressed that in some cases the stream modification as a result of agriculture impacts the health of wetlands. I think that in the La Cienega area it could go both ways if there is actually enough water for wetlands, it will eventually flow out of the wetlands in to the stream where it can be easily diverted. Because there is so much water actually there in the underground, discharging in the Cienega creek itself contributes roughly 30% to the Santa Fe River. Santa Fe River is gaining a stream as a result from the wetlands in La Cienega.

[Discussion from Claudia Borchert – inaudible, response from Jan-Willem is below according to her comments.]

Note: Reference to maps that show the ground water flow from east to west in Santa Fe County. Due to the geology of Santa Fe County in the Tesuque area and also in the La Cienega and San Marcos area they have important discharge zones. That leads to accumulation of water in those areas; blue indicates saturation zones. It is because of the hydrostatic pressure from the mountain front all the way to the west that accumulates there and as a result of the pinching formation it surfaces in those wetlands. In La Cienega the interesting thing is that it is not only at the Tesuque formation it is coming to the surface so you have different layer ages of wetland waters that for a distance of a mile you can date the different sources of water according to the depth of the aquifers that come to surface at that point. That leads to many more opportunities to track waters from how fast it is being pumped to the center of the city.

Ms. McGraw: If you know of some projects that we should include or if you know of areas that you want us to look at please let us know as we need to put our list of projects together right now.

Ms. Romero-Pike: What do you think about beavers?

Ms. McGraw: I think that beavers are the answer to climate change, they store water and we don't have to pay them to do it. On the other hand they are prolific, they have lots of babies and they could be a nuisance, there are some places where they won't get along with people. There is such a thing called beaver deceivers which you can put in an Acequia or someplace you don't want beavers to build a dam, it prevents them from stopping a flow. There is a way to manage them and I think they do need management but I also think they are an essential key species for having rivers work. They recharge our flood plains, so there is the good, the bad and the cute.

Q: What is your time frame for input?

A: Quickly: In the next week, but Ms. McGraw will accept good input at anytime.

Thank you to Ms. McGraw and Jan-Willem for this informative presentation.

- b. Discussion and Action: Requesting River Commission approval of a resolution to request that the City of Santa Fe seek the approval from the Office of the State Engineer to acquire and use water rights for release in the Santa Fe River, and to confirm that the water may be released for river flows; and retain special counsel to prosecute the application for such approval. (Commissioner Richard Ellenberg)

Mr. Ellenberg: There has been past discussion on the need to have a test case to allow us to release by-pass water and to hire outside special counsel to do that. This commission identified Brian Egolf to do that. The Mayor is agreeable and is requesting a resolution from this body asking that special counsel be retained. The proposed wording of the resolution is as stated above.

Mr. Ellenberg moved to pass the resolution, Mr. Gerberding second the motion, motion carried by unanimous voice vote.

Mr. Ellenberg suggested staff take the Resolution to the Mayor as he has requested. It was the consensus of the commissioner that the Chair should present it to the Mayor.

Mr. Gerberding recalls that the purpose of the resolution was to discuss the purchase of the rights and the release so we could look at something we could do with the river fund that is available now.

Mr. Ellenberg: That is part of it, we would be talking about the safety of the llano and how we can release some water for the river and use that as a test case to file for the right to release it rather than just by-pass it.

Ms. Doremus: Who estimated the cost for legal counsel at or about \$10,000?

Mr. Ellenberg stated that Mr. Brian Egolf provided the estimate of \$10,000 which is well below the amount that has to go to city council based on the procurement code. For it to come out of the river fund we would now need to the city council as a project under the changes Councilor Carmichael made even though this would come out of the first half of the money since it is designed for the flow of acquiring and processing the acquisition of water rights. That is a decision that is left to the Mayor and we will learn how to proceed.

Claudia Borchert: Has a water right been found?

Mr. Ellenberg said that they need to finish their internal discussions on Acequia del Llano but we are probably prepared to modify procedures. The Audubon has rights on Acequia del Llano they would like to use for this purpose and we need to agree on how we would want to manage the decrease in our water flow.

Claudia Borchert: Is that a lease or a sale?

Mr. Ellenberg: It probably will be a lease.

Claudia Borchert: I am not understanding how this becomes a test case if this is just a lease?

Mr. Ellenberg: I don't know I would assume that you would lease the water and still need to apply to move it from the Acequia to the river and that it be released rather than by-pass.

Claudia Borchert: Acequia Llano water rights can be put to use by the Acequia at anytime.

Mr. Ellenberg: If Mr. Egolf believes this is a bad test case we would need to come up with another one.

Mr. Bové: If you are going to take it from the Acequia Llano then you are going to change the point of diversion, you are not going to divert it. To protect the Audubon Society water right that water is going to have to be put to beneficial use, I think that is the test case.

Ms. Doremus: What I understand you to say is that what you really want to test is a release of water to the river and that the release to the river, whatever water right it is that it is a beneficial use to release it to the river.

Mr. Ellenberg said and that it can be released without endangering the city license so we get past the constraints of the by-pass theory. The objective is to get past the by-pass theory so particularly in dry years we can do the surge releases so we can accomplish the environmental objectives of the releases and not be constrained by the amount of water coming in at that particular point.

Ms. Doremus: It sounds like it is very important to assure that the test case is really an applicable test case.

Mr. Bové: We don't want to misuse the water.

Mr. Drypolcher: My understanding that the request is to take the letter to the Mayor to satisfy the request that went back and forth between the committee and the Mayor.

6. MATTER FROM COMMISSIONERS

- Mr. Gerberding – Congratulations to Felicity and the Water Shed Association for the organization of the Green Lodging initiative. I had the privilege of attending the first meeting this week to see what they had to put forth to developing green concepts for hotels. I was very pleased with the people

running the meeting and the tools that came to the table and their practical approach to getting this done.

- Mr. Gerberding, for clarification purposes – the folks that came today as they were discussing the wetlands, in a way it is information for us to gather so we understand what they are doing and the tools they can provide us as we assess how to make decisions about that wetland area down there and how it relates to the farming in Cieneguilla, la Cienega and also the airport on the traffic and the beavers; is that right?
- Chair Jacobi: Thank you to the Watershed Association for the River student project displayed in the halls of city building.

7. MATTERS FROM STAFF

Message from the Mayor: Thank you to the River Commission for service and getting the resolution passed.

Brian provided an extensive list of projects that he is involved in and the dollar value on each project which will require his attention and dedicated time.

- Project Mgmt Portfolio working around the park downtown, Louis Montano Park, approximately \$2 million construction project.
- River repair projects – requires critical work before the monsoon – fix bishops, approximately \$1/2 million dollar project.
- River connectivity projects \$1 million
- River trail crossing St. Francis / Alameda –
- New year of target flow coming up, need to finish this out and it will go to council for approval of next year's target flows.
- River Fund: Shop for water rights, get new projects and work with them and work with Mr. Egolf.
- Watershed association, adopt the Youth works contract.

Much of what will take time is the procurement process.

Commission offered their help.

What is the timing for target flow? April forecast and the annual report will be needed. Allan and Claudia will be working on this. (5th of April for forecast)

Next meeting: 2 weeks – It was agreed that we would hold a meeting in the next two weeks.

Claudia Borchert: Cold Water – Santa Fe Art Design – Play this weekend and next weekend. Invited the commissioners to attend.

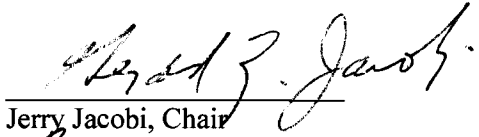
8. CITIZENS COMMUNICATION FROM THE FLOOR

None

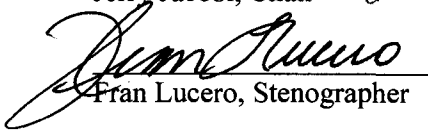
9. ADJOURN

There being no further business to come before the Santa Fe River Commission, Mr. Ellenberg moved to adjourn at 8:00 pm, second by Ms. Romero-Pike, motion carried by unanimous voice vote.

Signature Page:



Jerry Jacobi, Chair



Fran Lucero, Stenographer

KEEPING SANTA FE COUNTY WETLANDS VIABLE AND FUNCTIONING

A WETLANDS ACTION PLAN FOR SANTA FE COUNTY

December 31, 2012

Prepared by:

Jan-Willem Jansens

Ecotone



Justification and Credits

This Wetlands Action Plan was prepared in partnership with the New Mexico Environment Department's Surface Water Quality Bureau Wetlands Program with additional support from Santa Fe County. The Wetlands Action Plan was written to satisfy the grant objectives of a U.S. EPA CWA Section 104(b)(3) Wetlands Grant (Assistance Agreement No. CD-966558-01-0-C (FY2007)), entitled: "Comprehensive Wetland Restoration and Protection in Santa Fe County".

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Conservation Planning
for Landscapes in Transition

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*In the end, we will only conserve what we love
We will only love what we understand
We will only understand what we are taught*

Baba Dioum, Senegalese Poet

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Executive Summary

Limited Information - This Wetlands Action Plan for Santa Fe County (WAP-SFC) is the first comprehensive study of wetlands and riparian areas in the Santa Fe County area. The information in this WAP-SFC is based on a number of ecological and hydrological studies, wetland restoration and protection project reports, and mapping efforts. Due to significant information gaps, however, this WAP-SFC offers at times a piecemeal and dated picture of the County's wetland conditions.

The limited literature indicates, however, that in the last few hundred years many wetlands with permanently wet conditions in the County have been lost. Ongoing urban development, coupled with the impacts of climate change and cumulative historical land use impacts, continue to present many stressors to wetlands ecosystems. Additionally, the present enabling environment for wetland restoration and protection--consisting of local regulations for wetland protection, local institutional capacity, available funding sources, public involvement, and water quality standards for wetlands--appears to be inadequate and offers great challenges to countering the stressors and threats to wetlands in the future.

Purpose - The purpose of the WAP-SFC is to provide guidance to public and private landowners and land managers, decision makers, and resource management professionals about future action initiatives for the protection and restoration of wetlands in Santa Fe County. The information, analysis, and ideas offered in this WAP-SFC aim to stimulate dialogue, coordination, and collaboration. To that end, the WAP-SFC concludes with goals, strategies, and recommendations for future wetland protection and restoration initiatives with an emphasis on the protection and restoration of wetland functions that provide water quality benefits and ecological integrity.

Needs - The future functioning conditions of wetlands and riparian areas in Santa Fe County are dependent on (1) better and more publicly accessible information for planning and decision making on wetland management, (2) improvements of local regulations and their implementation and enforcement, (3) continued and increased restoration and protection initiatives, (4) improved institutional and public support, buy-in, and collective stewardship behavior, and (5) development of water quality and ecosystem function standards for optimal natural functioning conditions of wetlands in Santa Fe County.

Proposed Interventions - This WAP-SFC proposes that proper planning for the future conditions of wetlands in the County begins with the need to know what wetlands we have and where they are. Therefore, it is critical to collect more data through assessments, e.g., through the NM Rapid Assessment Method for wetlands (NM RAM), and through ongoing monitoring of wetlands and their stressors and threats. Assessments must be accompanied with wetland mapping and public sharing of documented information about wetlands. Assessments will need to reveal the functioning conditions of wetlands, the stressors and threats that impede wetland functioning, and the ecosystem services and values of wetlands in Santa Fe County. Such relevant information will direct what wetland restoration and protection strategies need to be employed as well as where, in what order, and how these strategies need to be implemented.

Simultaneously, regulations must be sharpened, especially Santa Fe County's Sustainable Land Development Code and terrain management guidelines, in order to direct positive land and resource use and stewardship action in the community and to eliminate harmful human-caused stressors. Current regulatory conditions offer many opportunities for Santa Fe County to be a pilot area and leader in developing regulations that counter the projected negative effects of urban development and climate change on wetlands in the future. Additionally, County and State agencies must seek to support all public resource management institutions involved in wetland management to implement and enforce existing and new regulations.

The growing expertise and practice of wetland restoration and protection in Santa Fe County can be further developed. A primary target must be to continue identifying new funding sources and pursuing innovative and collaborative funding models that are linked to the values of ecosystem services that are being protected. Additionally, it will be important to broker more voluntary land protection agreements, i.e., conservation easements, especially for establishing wetland buffer areas, grow multi-party collaboration on projects, and build local institutional capacity among private and public partners. Finally, development of one or more designated staff positions within Santa Fe County's natural resource and planning divisions for wetland and habitat restoration and protection would significantly support the achievement of many proposed interventions of this WAP-SFC.

Public education is essential to achieve these improvements for wetlands over time. Public involvement will help generate funding for wetlands, create buy-in for public investments, and educate people about the natural benefits provided by wetlands. As a result, people will be more likely to offer stewardship services and change land use behavior that causes stresses on wetlands. Public and landowner education toward restoration and protection of wetlands may in fact reduce the development of certain regulations, which, in turn, may reinforce voluntary stewardship action on the part of landowners to avoid regulatory pressure.

In order to set targets and monitor progress toward desired conditions, it will be important to establish water quality and ecosystem function standards for wetlands. While standards development is currently a statewide need, Santa Fe County could serve as a pilot area to develop riverine wetland standards for intermittent lower elevation streams, such as in the Galisteo Basin, in conjunction with the proposed water quality classification in this watershed. Additionally, SWQB could pilot slope wetland standards development in the County following the results of a hydrogeological study in the La Cienega Area. Finally, SWQB's pursuit of the protection of ONRW streams in the County also offers good opportunities for further standards development.

Urgency - This WAP-SFC is timely because it coincides with County planning processes and the development of a new land use code, the Santa Fe County Sustainable Land Development Code. There are many other supporting initiatives under way in the City of Santa Fe and in State and Federal agencies and their partnerships. The WAP is also timely, because the need for wetland restoration and protection planning is great in the face of impacts from development and climate trends. Wetlands are of great importance in Santa Fe County, because wetlands play a critical role in wildlife habitat and linkages between different ecoregions that converge in the County. Additionally, a small but vibrant traditional agricultural community is supported by the County's

springs and streams. Wetlands also play a role in flood attenuation, water infiltration, and the buffering of sediment and other water quality impairments.

The combined picture of the literature cited in this WAP-SFC suggests that in the next 10-20 years, urban development in Santa Fe County will take place in areas immediately around the City of Santa Fe, which include important streams and wetlands. Ongoing groundwater diversion (i.e., extraction), potential encroachment of residential and infrastructure construction into wetlands, and subsequent pollution and urban runoff threaten the wetlands that are in the path of the projected development. Simultaneously, projected climate change impacts, such as increasing losses of available surface and groundwater due to evapotranspiration and reduced infiltration, are likely to lead to reduced aquifer discharge, ecosystem shifts, wild fire, and ongoing proliferation of invasive plant species. The increase of these wetland stressors will likely precipitate the loss of wetland functions and associated ecosystem services and values.

What is at Stake - Ecosystem functionality of wetlands is the basis for the natural benefits of these ecosystems to the community. The values people attribute to these ecosystem services are, in turn, the driving force behind the justification of funding and motivation to restore and protect wetlands. The main ecosystem functions at stake are biodiversity, habitat and shelter for many species of wildlife, the landscape-wide connectivity between riparian ecosystems, and the water quality of streams and wetlands. It is estimated that annually these values would represent millions of dollars in engineered solutions in the County to compensate for any additional losses of wetland functions.

Goals - This WAP-SFC specifically proposes that attention be given to the development of County regulations and local and regional implementation projects for the establishment of buffer zones for wetlands, storm water infiltration, stream and floodplain restoration (e.g., through beaver reintroduction), and reduction of the County population's dependency on groundwater, as well as local regulations and actions to protect habitat and connectivity between wetland ecosystems. The WAP-SFC summarizes proposed actions in eight goals:

- Goal 1: Complete the information base-line about wetlands for Santa Fe County.
- Goal 2: Establish a monitoring program for data upkeep on status and trends of existing wetlands in Santa Fe County and share and disseminate findings.
- Goal 3: Identify Santa Fe County as the pilot area to adopt statewide procedures and strengthen processes that protect wetlands through regulatory measures.
- Goal 4: Support federal, state, tribal, and local government agencies in the enforcement of regulations and in offering comments during public review processes of proposed actions that potentially impact wetlands in Santa Fe County.
- Goal 5: Achieve restoration and protection of high priority wetlands by 2020.
- Goal 6: Further develop and support the institutional capacity for wetland restoration and protection in Santa Fe County.

Goal 7: Educate the public and develop public support, buy-in, and a donor base for wetland restoration, and develop wetland stewardship through an Adopt-a-Wetland program.

Goal 8: Develop water quality standards for wetlands with those in Santa Fe County as a case study for meeting this goal across the State of New Mexico.

Pragmatic Prioritization - The WAP-SFC proposes a pragmatic prioritization approach of wetland restoration and protection actions based on the extent to which stressors impact wetlands and on the feasibility at a given time of specific actions at specific locations or for specific institutions. The WAP-SFC offers a simple check list of prioritization criteria to guide the prioritization approach of on-the-ground initiatives.

The WAP-SFC focuses principally on the period of 2013-2020. Since the WAP-SFC anticipates urban development and climate effects and responses that stretch several decades from the present time, some proposed actions will extend beyond 2020.

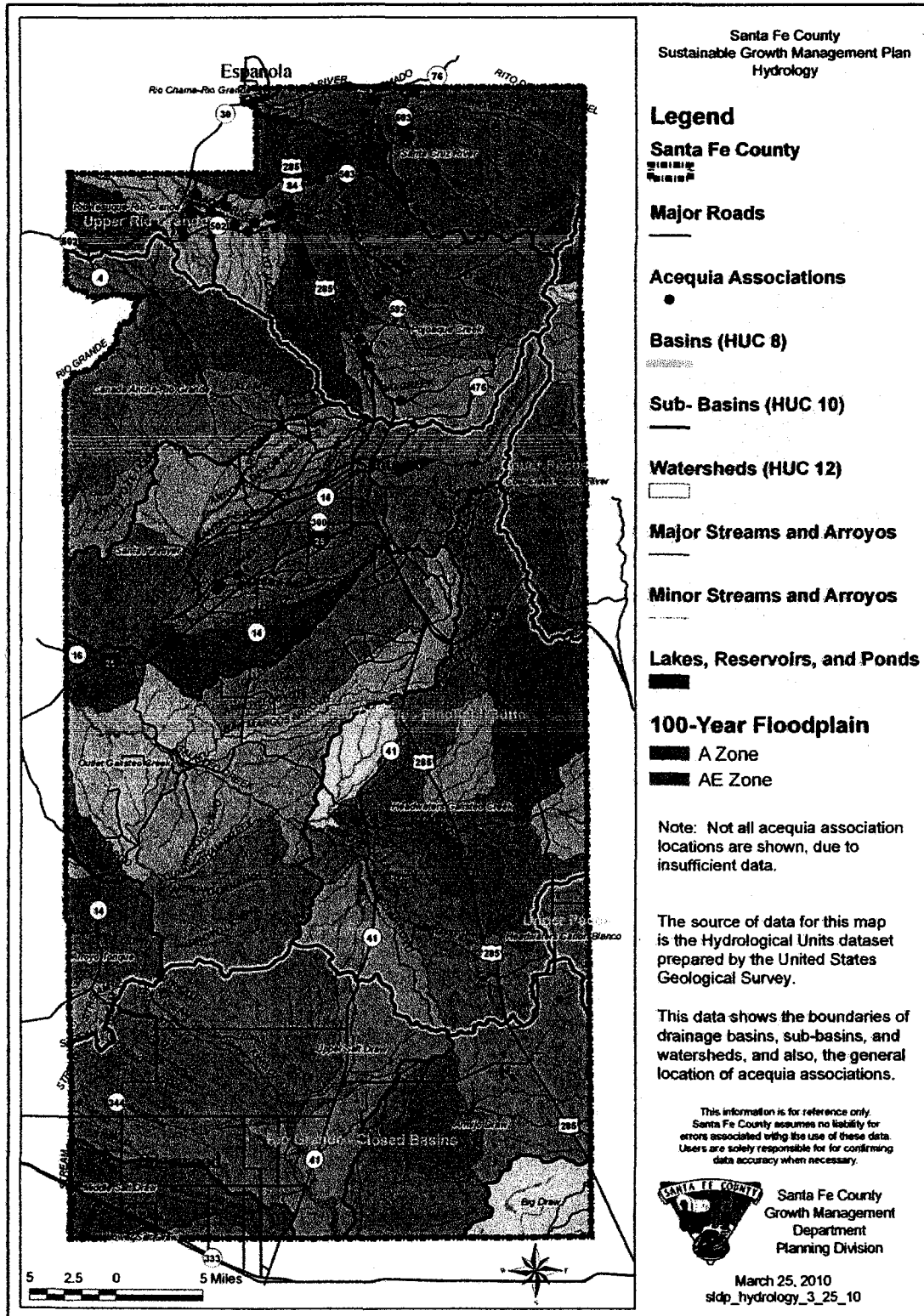


Figure 1.2. Map of basins, watersheds, flood zones, and water bodies in Santa Fe County.

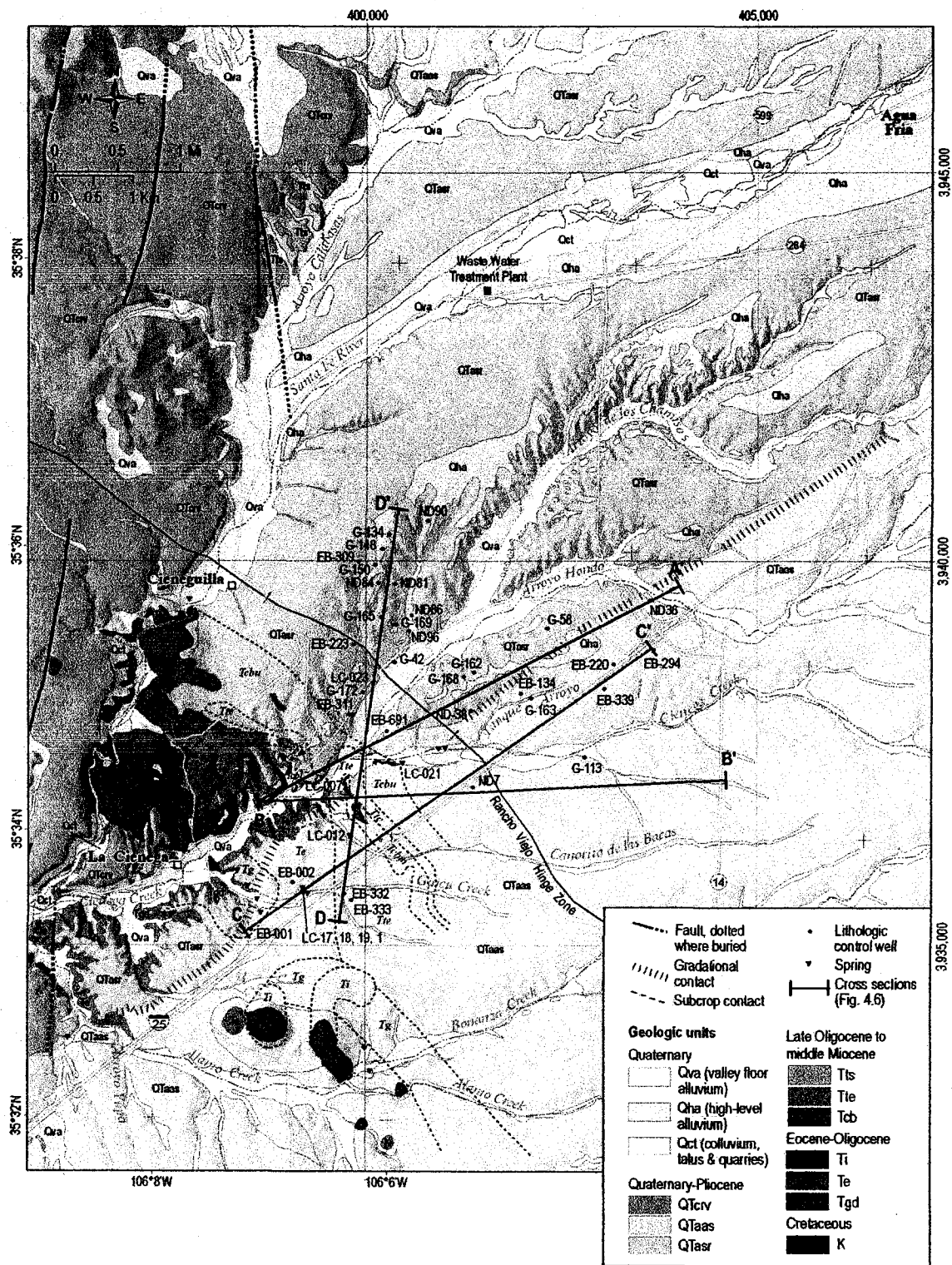


Figure 4.3: Generalized geologic map of the study area. See Figures 4.4 and 4.6 for the stratigraphic context of subsurface units.

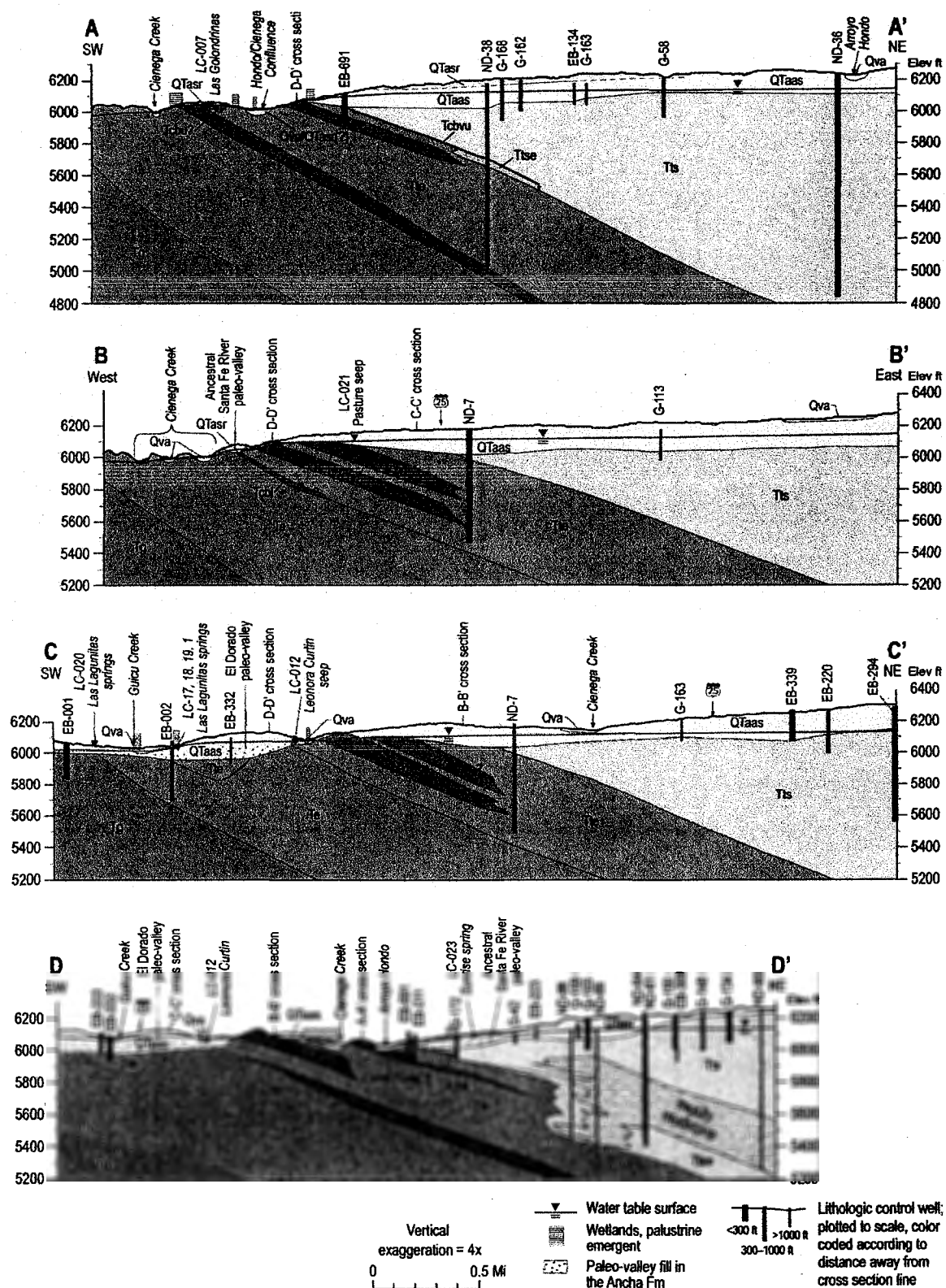


Figure 4.6: Geologic cross sections through the La Cienega Area. See Figures 4.3 and 4.4 for unit explanations.

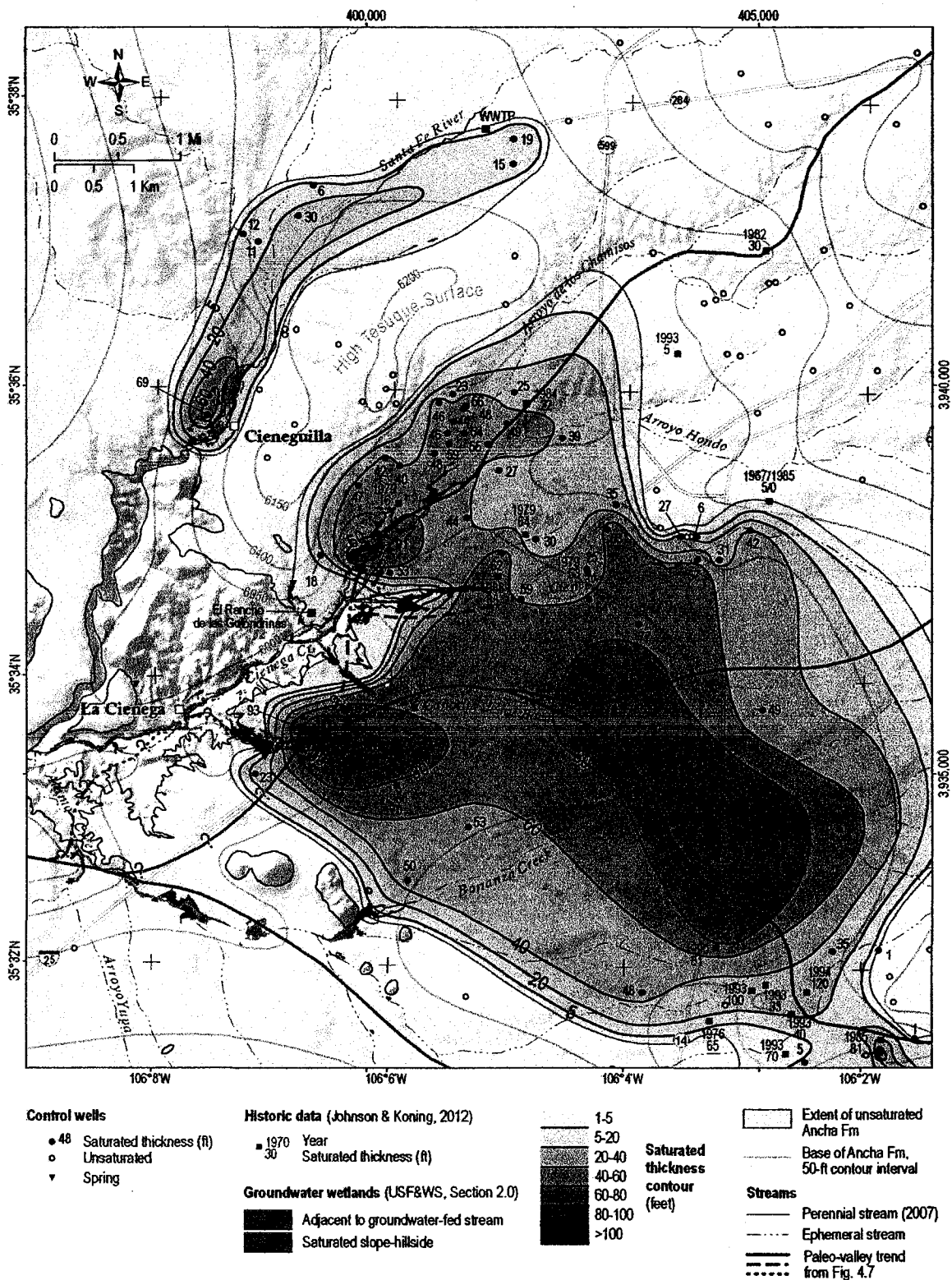


Figure 4.9: Saturated thickness (in feet) of the Ancha Formation (modified from Johnson and Koning, 2012).

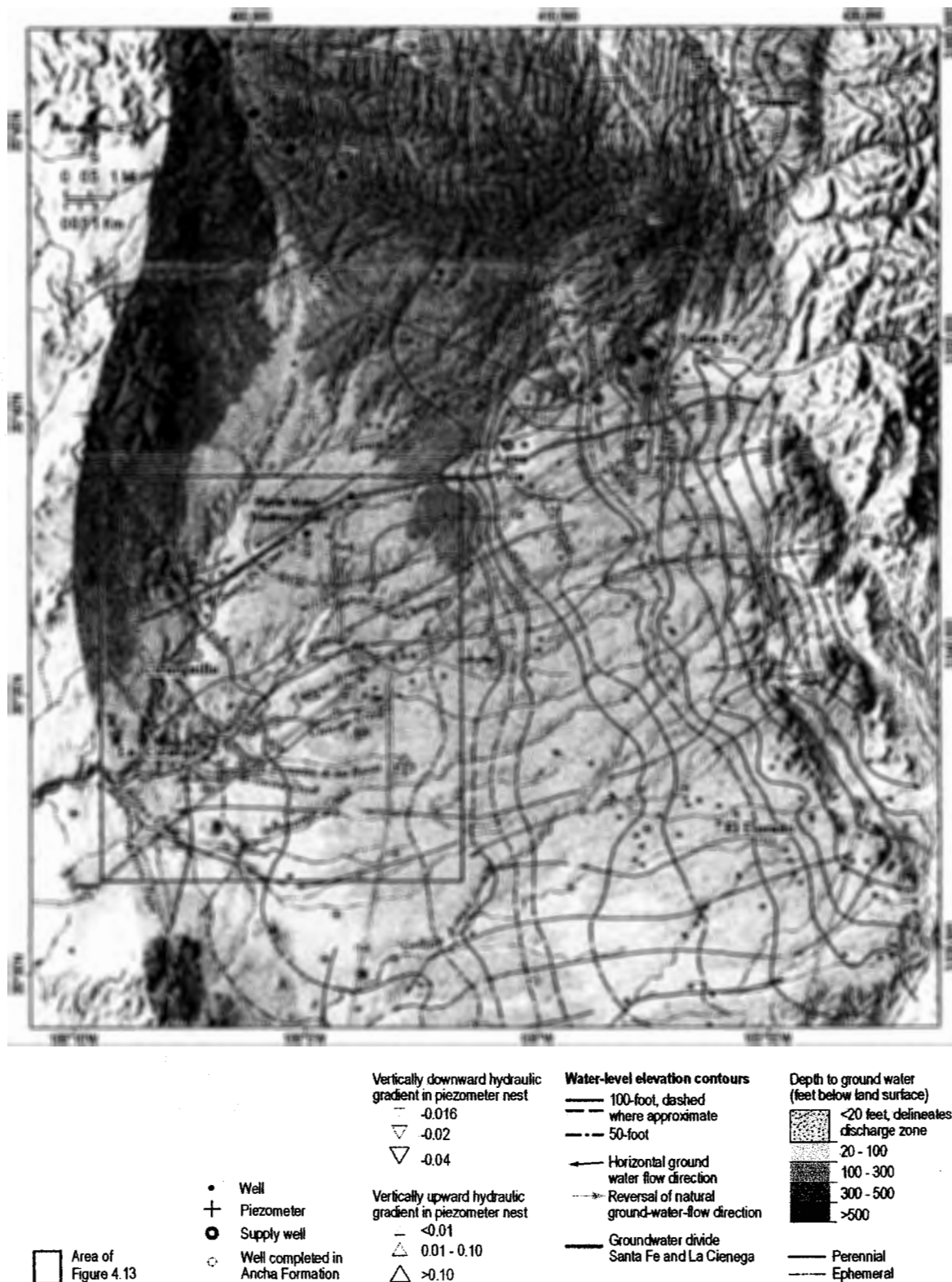


Figure 4.12: Regional groundwater flow conditions for 2000 to 2005, in the Santa Fe area (Johnson, 2009).

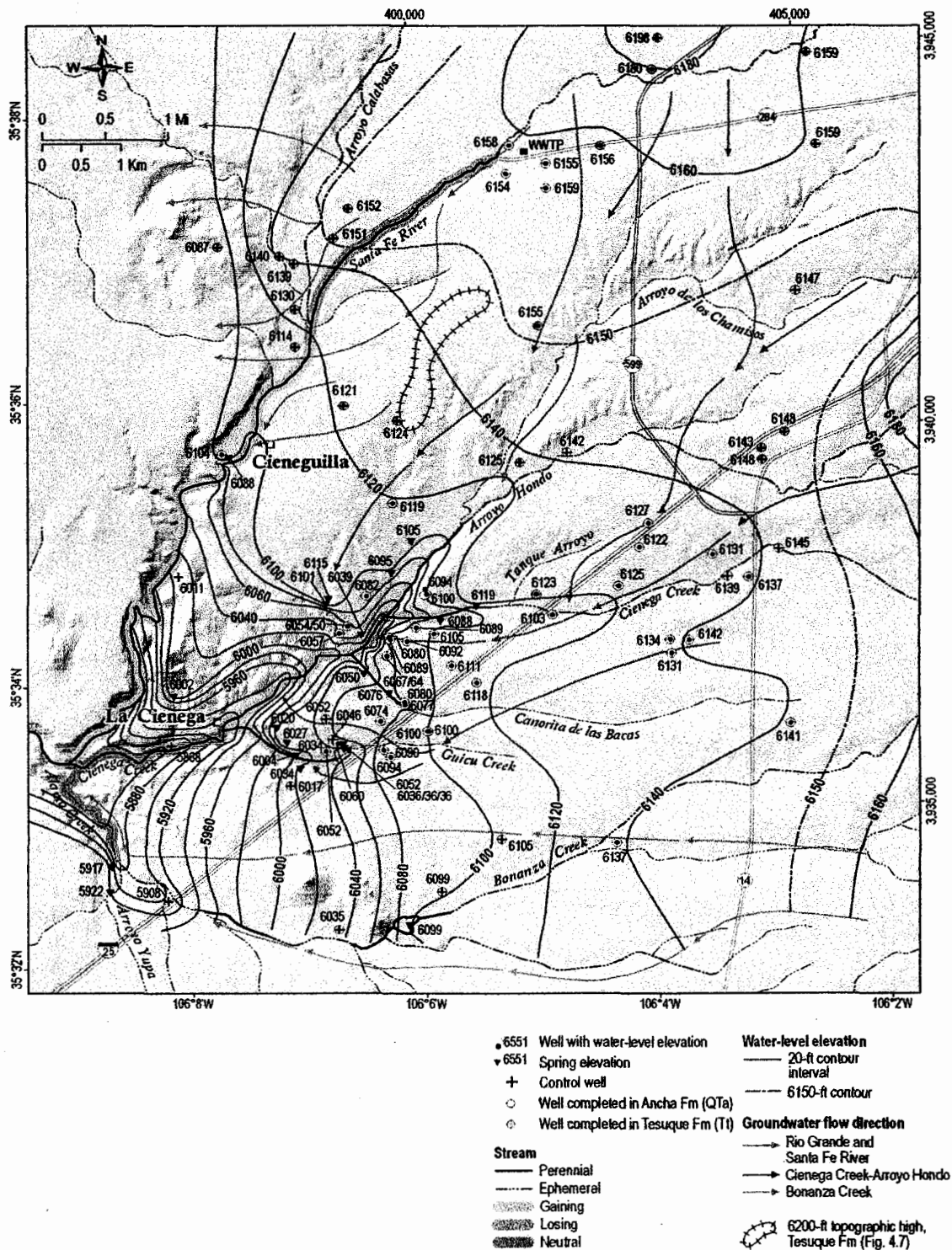


Figure 4.13: Groundwater map of 2012 water-table conditions in the La Cienega Area illustrating the water-table surface, groundwater flow directions, and interconnections between the water table and gaining and losing stream reaches. Control for potentiometric contours include 46 wells measured between March 2011 and May 2012, surface elevations at 22 springs, and existing data from 29 wells measured between 1997 and 2007 (Table 4.3). Designated gaining, neutral, and losing stream reaches reflect results of NM Hydrologic, LLC and NMOSE (2012a, 2012b).