



Agenda

DATE 3/8/18 TIME 3:11 PM

SERVED BY Melissa McDonald

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Santa Fe River Commission Agenda
Thursday, March 8, 2018 (Round House Room), 6 pm to 8 pm
City Offices at the Market Station Building at the Railyard
500 Market Street, Suite 200, Santa Fe, NM
505-955-6840

1. ROLL CALL
2. APPROVAL OF AGENDA
3. APPROVAL OF MINUTES FROM January 11, 2018
4. COMMUNICATION FROM OTHER AGENCIES /COMMITTEES
 - a. SF Watershed Report (Andy Otto)
 - b. Santa Fe County River Update (Scott Kaseman)
5. INFORMATION/DISCUSSION/ACTION:
 - a. Action Item: Election of Chair / Vice Chair for 2018 (Staff)
 - b. Sites of Environmental Concern in Santa Fe (Alex Puglisi)
6. MATTERS FROM COMMISSIONERS
7. MATTERS FROM STAFF
8. CITIZENS' COMMUNICATION FROM THE FLOOR
9. SUB-COMMITTEE BREAKOUT SESSION
10. ADJOURN

Next Scheduled River Commission Meeting is April 12, 2018
Captions & Packet Material are due by 10 am on April 4, 2018
Persons with disabilities in need of accommodations,
Contact the City Clerk's office at
(505) 955-6521 five (5) working days prior to the meeting date.

Santa Fe River Commission
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**Santa Fe River Commission
MINUTES
Thursday, March 8, 2018
6:00 pm to 8:00 pm**

1. CALL TO ORDER

The Santa Fe River Commission meeting was called to order at 6:00 pm by the Chair, John Buchser, in the Roundhouse Meeting Room, Market Station Building at the Railyard, 500 Market Street, Santa Fe, NM.

2. ROLL CALL

PRESENT:

John Buchser, Chair
Phil Bové
F.M. Patorni
Zoe Isaacson
Dale Doremus

NOT PRESENT/EXCUSED:

Anna Hansen
Emile Sawyer
Jerry Jacobi
Luke Pierpont

OTHERS PRESENT:

Melissa McDonald, River and Watershed - Staff Liaison
Alex Puglisi, City Staff
Scott Kaseman, Santa Fe County
Alan Hook
Andy Otto, Santa Fe Watershed Association
Anna Serrano for Fran Lucero, Stenographer

3. APPROVAL OF AGENDA

Item 5-b Discussion - Move to 4-b, Scott Kaseman – 4-a

Matters from Commissioners: Potential flows or lack thereof, per the Chair.

Ms. Doremus moved to approve the agenda as amended, second by Ms. Isaacson, motion carried by unanimous voice vote.

4. APPROVAL OF MINUTES FROM JANUARY 11, 2018

Corrections:

Page 7: mention of 1000 ac. ft.

Typo: ~~Chair~~ Chair

Ms. Isaacson moved to approve the minutes of January 11, 2018 as amended, second by Mr. Francois, motion carried by unanimous voice vote.

5. COMMUNICATION FROM OTHER AGENCIES /COMMITTEES

a. Santa Fe Watershed Report (Andy Otto)

b. Santa Fe County River Update (Scott Kaseman, Santa Fe County Project Manager)

Report: Presently they are doing construction on the Frenchy's/Siler Road stretch, they have most of the boulder construction in for the bank protection. Plantings will start in the next 3-4 weeks the willows and the cottonwoods and in April they will start the cement pouring for the pathway. The MS project completion is June 28, 2018 but they are running 3-4 weeks ahead of schedule. Looking at the end of May for completion. They uncovered 19,000 cubic yards of cement/asphalt; a gymnasium/house built in the 50's and 60's had pushed in to the river and covered with a few feet of dirt. They were hoping to use some of the material from those banks but instead they were hauled and disposed of. One big concern they have for this stretch is the lack of snow and lack run off this year. If they don't get the flood plain soaking for the 15,000 willows there is a good chance they won't make it. Mr. Kaseman said all they need is a good soaking for 24 hours to give those willows a fighting chance. Mr. Kaseman asked for consideration when looking at the flows.

The Chair asked how flexible is their planning schedule. Mr. Kaseman said it is not very flexible because they need to harvest the willows before they bud. With the willows they need the water in May, they will cut the willows and soak them for 5-7 days with a root stimulator, they will use a water jet and the roots will start to take. When the tops start growing in May and the tops start to dry out they will need the water.

Ms. Doremus: Is there a preference for when in May? Mr. Kaseman said anytime in May is good, the sooner the better.

Ms. Isaacson asked if there is any chance to put off the planting for a year?

Mr. Kaseman said that is something they have already agreed to not include the willows. They have supplemental water for the 150 cottonwoods going in all the way through October. Willows were taken out for the substantial completion and the contractor was told they would be granted a 6-month extension to come back and plant next spring. This is a lot of planting, 3000 holes, and 5 stocks each. Discussion continued on the timing process for the plants to live. Mr. Kaseman said they have access to water trucks for supplemental watering.

The Chair asked if there is any citizen help that could be useful. Mr. Kaseman said that all help would be accepted if they reached a time of worry.

Ms. Doremus asked if there is any plan to monitor the water in the sub-surface. That was done in the previous reach there were several piezometers opened. Mr. Kaseman said they don't have any included in this project. As part of the Army Corp of Engineers 404 Permit, Mr. Kaseman is required to do monitoring for the first 3 years. They have partnered with River Source, they will be monitoring how the boulder structures are working, how the vegetation is coming along, they do have that monitoring but as far as checking the water they don't have in place.

The Chair expressed safety concerns prior to the official openings. Mr. Kaseman said this is an on-going discussion and there are safety and security concerns that they deal with as they occur. Mr. Kaseman reiterated that if there is any suggestions he is happy to hear and they are working hard to keep the project as safe as can be.

Ms. Doremus asked if there is any grass seeding involved. Mr. Kaseman said they are doing a Class A Hydro-seeding for this project, 18 acres worth. This will be one of the very last things that they do. The nice thing about the hydro seeding is it has the moisture built in to it, helps to give the seeds a start and to keep them to adhere to the slopes. Ms. Doremus said she remembered there were some problems at the first attempt and it had to be done twice. Mr. Kaseman said they wrote it in to the contract that if there were any failure at first attempt they would have to come back.

Segment B: Siler to San Isidro Crossing – they have acquired 9 properties and have 18 more to go. All of the landowners except for 2 support the project and they do not anticipate difficulties with. There may be 1 or 2 that needs a condemnation act filed. Mr. Kaseman has gone out for final RFP for this stretch, proposals are due the first week of April and it goes to BCC for approval the first week of May and they will start the final design this summer. Right now they have 30% conceptual design, which shows the alignment of the River Channel and the alignment of the trail. It shows an access road that will be running on the north side of the property on the San Isidro Crossing down to Vereda San Antonio to provide legal access for the owners to the north. That road will be the first thing that is constructed. As soon as they have all the properties acquired they will go for an invitation to Bid to construct that access road before the rest of the projects begin. The construction on that section, they do not have a construction funding for it yet. They will go out in November 2020 for \$4 million dollars in General Obligation Bonds and hopefully the voters will approve that funding and they will have the \$4 million dollars to begin construction in 2021 and anticipate the same about a 6 month construction. Everything that has been done on Frenchy's to Siler, it is planned to do the same on the Siler Rd. to San Isidro Crossing, same plantings, wide concrete. Proposals are due the 1st week in April and the RFP covers the final design.

Mr. Kaseman said the projects are well supported by the entire community. The way the acquisition work, the County hires a Certified Appraiser to do the appraisal based on fair market value, his appraisal is reviewed by another certified appraiser and they make an offer based on those. If they disagree to the offer they have the opportunity to go out and find additional comparable that support a higher value. If they still don't want to assign after 4-5 attempts, the County Attorney can file a Condemnation Action with the Court and at that time the County provides all the communication that has transpired with the home owner and present the project and the Judge can grant right to enter property and the amount of the appraisal is placed in to Escrow. The County can take possession of the property, start constructing, it goes to court for dispute and a Judge will determine his decision. Additional discussion was held regarding the decision on the portion of the land and the process negotiations.

Ms. Doremus asked if the map has been placed on the website? Mr. Kaseman will check and provide feedback to Melissa. He will put up Section A and B and try to get full map up as well.

Thank you to Mr. Kaseman for the update

6. INFORMATION/DISCUSSION/ACTION:

a. Action Item: Election of Chair/Vice Chair for 2018

Nominated: Zoe Isaacson as Chair and John Buchser as Vice Chair, thank you to Phil Bové.

Ms. McDonald also encouraged Ms. Isaacson to consider being the next Chair. Ms. Isaacson said that she is not in a position to accept the Chair position at this point in time as she does not have the historical knowledge of the river. Ms. McDonald stated that the staff and committee would support her in all matters related to the River Commission. Ms. Doremus supports that sentiment, there are people on this committee who have come and gone and the historical contributions are many and she and others will be supportive. Ms. Isaacson stated she is willing to take on the position of Chair.

Ms. McDonald explained the process; 1) they have been delinquent in having elections in January, 2) for some reason the way the by-laws are interpreted it didn't interpret that the terms be staggered so everyone's term would end in 2019. Ms. McDonald feels they should suggest language changes for the terms and this will also provide more historical support along with new contributory individuals. The River Commission should work together on this task. It is a good idea to hear from the new Mayor as to what he sees this mission of this committee. One thing to consider is possibly getting a city councilor on this Committee. The city council will vote on any by-law changes to the ordinance. Ms. McDonald would meet with the Mayor 1:1 to express the changes from the River Commission members.

Ms. Doremus moved to nominate Ms. Zoe Isaacson as Chair for the Santa Fe River Commission, second by Mr. Buchser, motion carried by unanimous voice vote.

There being no further nominations or objections, Ms. Isaacson was welcomed as Chair for the Santa Fe River Commission.

Ms. Isaacson moved to nominate Mr. John Buchser as Vice Chair, second by Ms. Doremus, motion carried by unanimous voice vote.

There being no further nominations or objections, Mr. Bucher was welcomed as Vice-Chair for the Santa Fe River Commission.

A future meeting was discussed with the new Mayor to talk about the structure of the River Commission, providing him an update of what the River Commission has been working on and hear what he would like to see on the agenda for future River Commission concentration.

Ms. Isaacson said she feels first order of business should be to introduce the Mayor to the River Commission so he can become familiar with their credentials and purpose/mission for the River Commission. That exercise in itself will help the River Commission understand where they want to go as a commission. We can create a working document as we go through this process.

b. Sites of Environmental Concern in Santa Fe (Alex Puglisi)

Power Point presentation provided hard copy by Mr. Puglisi. (Exhibit A)

Mr. Puglisi stated that he would frequent the meetings in the future to discuss with the River Commissioners any environmental concerns they have in the city.

Mr. Puglisi spoke directly to the members referring to the slides, Exhibit A.

Ms. Doremus asked when the Santa Fe well was shut down. Mr. Puglisi said 2012-2013.

Ms. Isaacson asked when they were running the well 24-7, what were they doing with the water. Mr. Puglisi said it was being put in to the distribution system, and people were drinking it. That is why there is a concern of something in between the production well and the distribution system that would allow them to capture the water. They couldn't do a constant sampling but if something happened with the treatment system they would know and they could shut down and sample the water before it went into the system. PNM would not consider that whatsoever, they wanted us to continue running it through the granulated activated carbon towers and into the system.

Ms. Doremus added that NMED entered in to an agreement with PNM agreeing to use the _____ well as their remediation well but as time went on that were different groups at NMED were not comfortable with that. Ultimately after years of this occurring and seeing results the other concern was that well was completed at a really deep level and smearing the plume in to the subsurface deeper and deeper where the water supply is vs. where the shallow water was where the contamination was. That was the huge concern from NMED and the legislators when we wanted to renegotiate.

Mr. Puglisi will come to the May meeting with further updates. He stated that they just received the report for the Ortiz landfill and that is mainly a groundwater concern right now.

7. MATTERS FROM COMMISSIONERS

FM suggested a briefing meeting with the new Mayor. He noted that at some of the public forums he attended that some of the responses provided by the Mayor were weak and he would like to provide information regarding the River Commission work. It was noted that all Mayoral candidates were in support of the River Commission.

Chair asked Alan Hook if we are going to have water.

Alan: Water where and how?

Chair said do we keep the preserve slightly wet with leakage, which I believe the answer would be yes.

Alan: The critical hydrograph number is 1.5 CFS down the river so if that trickle flow will be through the Spring but as it gets hotter, May-June, not sure how far that trickle flow will get.

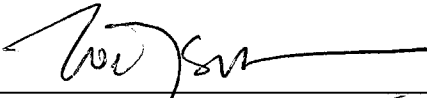
The Chair asked if we knew the date for the River blessing. Ms. McDonald and Mr. Hook will provide more information after review of the hydrograph and update will be made at the April meeting.

8. **MATTERS FROM STAFF**
Staff to report at next meeting
9. **CITIZENS' COMMUNICATION FROM THE FLOOR**
None
10. **SUB-COMMITTEE BREAKOUT SESSION**
11. **ADJOURN**

Ms. Doremus moved to adjourn the formal part of the meeting at 8:00 pm, second by FM Patorni, motion carried by unanimous voice vote.

Santa Fe River Commission – March 8, 2018

Signature Page:



~~John Buchser, Chair~~

JOE ISAACSON, CHAIR


Fran Lucero, Stenographer

Santa Fe Well

Chronology of dates for PNM SF Generating Station Site (Santa Fe Well #1 aka Baca Street Well Site)

- 1950-1980: PNM operated electrical generating station near wellhead.
- 1951: Santa Fe Well was drilled and turned on.
- 1952: 84,000 gallon fuel oil spill occurred on PNM property.
- 1953-1985: PNM operated service center near wellhead.
- Oct. 1988: Benzene and EDB contamination discovered in wellhead. Santa Fe Well turned off.
- 1989: Four monitor wells drilled on PNM property. Soil borings drilled underneath former USTs.
- June 1989: Regular meetings began between NMED, PNM, and community.
- Oct. 1989: Santa Fe Well put back into service with carbon filter attached.
- Aug. 1990: PNM excavated PCE-contaminated soil near service center.
- April 1992: Santa Fe Well turned off again after discovery of gasoline in nearby monitor well.
- Dec. 1992: Settlement Agreement signed. The Agreement provided brief history of site, details of investigation to be performed, jurisdiction of parties involved, information on cost reimbursement, and the necessity of quarterly progress reports.
- April 1993: First Amendment signed. Required obligations of PNM and its successors.
- May 1995: NMED sent letter designating PNM as source of contamination.
- July 1995: City of Santa Fe bought Sangre de Cristo Water Company from PNM. PNM continued to operate the company for the City.
- July 1995: Second Amendment signed. PNM agreed to continue investigation despite disagreement with NMED on source of contamination. Petroleum Corrective Action Fund now available for reimbursement.
- April 1996: Third Amendment signed. Provided payment to NMED by PNM for oversight activities.
- Oct. 1996: Fourth Amendment signed. Provided that PNM would pay \$1.22 million for aquifer testing, ground water monitoring, and remediation of site. Cooperation with City of Santa Fe acknowledged as necessary due to its ownership of Santa Fe Well.
- Nov. 1997: MOU signed. NMED, PNM, and City of Santa Fe accepted IT Corp. as remediation consultant and agreed to share information. City agreed to allow access to site and accept treated ground water for use in municipal supply system. PNM agreed to donate remediation system to City at the end of its obligation.

Santa Fe Well

Oct. 1998: Santa Fe Well is turned back on with remediation system attached.

July 2001: City of Santa Fe took over operation of Sangre de Cristo Water from PNM.

Oct. 2001: Injection system was turned off to begin compliance monitoring. Monitoring would determine whether site contamination had been reduced by at least 90%.

March 2002: Injection system was turned back on.

Sept. 2002: Injection system was turned off due to high levels of oxygen in the aquifer.

Aug. 2003: Fifth Amendment signed. PNM agreed to continue operating the remediation system until contaminant concentrations in selected monitoring wells are below applicable ground water and drinking water standards for eight consecutive quarters. In addition, PNM agreed to install 1 extraction well and 2 monitoring wells in the northern plume area.

April, 2012: NMED samples of Baca Street Well site, not sampled by PNM as part of Settlement Agreement, were sampled by NMED at the request of the City of Santa Fe. Samples indicate continued presence of contaminants of concern at the site, including elevated levels of nitrate not covered under the Settlement Agreement.

December 13, 2012: City of Santa Fe meets with NMED Ground Water Quality Bureau to discuss NMED'S April, 2012 sampling results. City of Santa Fe requests that Technical Advisory Group be convened.

January 7, 2013: NMED sends letter to Settlement Agreement parties asking for initiation of TAG to address issues of continued contamination at the site.

January 16, 2013: Technical Advisory Group reconvened. PNM, the City of Santa Fe and NMED in attendance.

August 1, 2014: PNM releases report by Hawley Geomatters, "Hydrogeologic Framework of the PNM Santa Fe Generating Station Site and Surrounding Parts of Santa Fe, NM-with Emphasis on Hydrogeologic Controls on Groundwater Transport in the Vadose Zone and Saturated Zones.

Santa Fe Well

- September 15, 2014: Last Technical Advisory Group meeting. Hawley Geomatters Report discussed. NMED and City of Santa Fe not in agreement with PNM that report shows that PNM is not a Potential Responsible Party for contamination at Baca Street site. NMED details options for further investigation of the site under the Groundwater Corrective Fund (CAF), as previously discussed at previous TAG meetings. PNM indicates that they will discuss options with PNM managers and legal staff. PNM commits to have an answer on PNM's position to employ the CAF options available to them within 2 weeks. That decision is not revealed until December, 2104.
- December 19, 2014: Meeting between NMED, PNM and Santa Fe. PNM announces intent to enter CAF. Wants a MOU between PNM, NMED and City to nullify current 1992 Settlement Agreement and amendments. PNM to write first draft of MOU.
- March 9, 2015: City of Santa Fe makes formal request to adjourn a TAG meeting in the absence of any new information about PNM's efforts to move the site into the CAF program. City maintains that TAG meetings should continue on a regular frequency until PNM enters CAF since site is still subject to 1992 Settlement Agreement and technical issues have not been resolved or new agreement reached as part of transitioning the site into CAF
- March 23, 2015: NMED convenes a meeting, at the continued request of the City of Santa Fe. . PNM presents a draft MOU for the site for comment. NMED and City of Santa Fe provide comments at the meeting. NMED indicates that it does not want the MOU to be a three- party agreement with the City of Santa Fe, as a third party, since the agreement will cover required investigation and abatement of contaminants at the site pursuant to NMED regulations. NMED desires the MOU to be between NMED and PNM, with a separate agreement for access and cooperation signed between the City and PNM concurrently. The City of Santa Fe agrees with NMED. NMED and Santa Fe to submit further comments to PNM within two weeks of the meeting. Group will reconvene in a month to discuss new draft to be prepared by PNM. In response to the comments submitted by NMED and the City of Santa Fe. A draft agreement covering PNM access and use of the well site will also be prepared by the City and PNM for review.
- December 22, 2015: City of Santa Fe informed that MOU between PNM and NMED under Corrective Action Program was signed by all parties and a work plan is required By June 30, 2016.

Santa Fe New Mexican

December 15, 2015

On the far side of the grid of chain-link fence, beside the Accquia Trail that winds by the New Mexico School for the Deaf and Fairview Cemetery on Cerrillos Road, and near art studios lining Baca Street and the bustle of the Railyard, lies a barren field pockmarked only with the piping for nearly three dozen monitoring wells. Beneath the surface, contamination from half a century of industry and progress drifts among the wells. And now, the New Mexico Environment Department and Public Service Company of New Mexico are renegotiating a decades-old agreement on what will be done to remediate the site, and who will do the work and pay for it, after well testing revealed contaminants not covered in their original documents.

The City of Santa Fe's skin in the game lies just south of the chain-link fence, at the Santa Fe Well #1, formerly the Baca Street Well, one of eight wells that feed the city's drinking water supply—and a predominant source for that water before the Buckman Direct Diversion was brought online five years ago. The well has been idled since new contaminants found in area monitoring wells raised concerns about the efficacy of remediation efforts, which sent NMED and PNM back to the negotiating table.

"We just simply want to be able to provide safe water through the Santa Fe Well and utilize that well as part of our system," says Bill Schneider, water resources coordinator for the city. "It's critical to us. So we would just certainly like to see the site next door to this well cleaned up and restored to drinking water quality."

The area has been monitored and the water filtered for trace petroleum hydrocarbons since 1988, when utility customers complained about a bad taste and odor in their water. Testing revealed benzene, among other contaminants. PNM ran a generating station near the site from the 1950s to the 1980s, and roughly 84,000 gallons of fuel oil were spilled there in 1952.

PNM does not acknowledge a connection, though. Its officials declined to be interviewed for this story; instead, in response to repeated requests for comment, they issued a written statement reiterating that the company is working with the state on a new agreement for additional study and cleanup. "PNM made a commitment to investigate, monitor and remediate the Santa Fe Station site and has spent more than \$5 million to honor that commitment, even though there is no definitive data as to the source or sources of the groundwater contamination at the site."

The city sees a filtration system installed at Santa Fe Well #1 as part of the remediation, and so when a part broke, it expected PNM to pay to replace it. PNM decided it was not responsible, however. So the well stopped pumping two years ago, and in the interim, it has continued to accumulate contaminants.

The current settlement agreement mandates testing at only a handful of the 32 monitoring wells on the site, and in 2012, Alex Puglisi, source of supply manager for the city's water division, pushed for the additional testing that turned up new substances.

"It's been 23 years since the settlement agreement has been signed, and the only activity that was occurring at the site was quarterly monitoring by PNM, so we have reams and reams of data, but we have nothing to show that there's been any attempt at delineation of the plume and cleanup," Puglisi says. Reports of previously unseen contamination, he claims, led to the question of whether the agreement is effectively addressing the situation.

The revised settlement is expected to include provisions for a new site investigation, and there's hope it will speed progress toward remediation.

"A full characterization needs to be done at that site, and they need to get a handle on exactly what is going on, and the wells they were monitoring were not telling them the story," Puglisi says. "Our concern is that we don't want contamination to linger or spread."

A draft agreement has been circulating since March but remains unsigned. Because the contaminants found were petroleum byproducts—benzene, toluene, ethylbenzene and xylene—the state-supported Petroleum Corrective Action Fund may shoulder a portion of the cleanup costs moving forward. "We have been working diligently on this for years," reads a statement from NMED, "and look forward to the future completion of the cleanup at the Baca site enabled by the Corrective Action Fund."

Conditions of MOU

Investigation and Remediation

1. PNM shall proceed with all further investigation and remediation activities with respect to the hydrocarbon contamination and any existing nitrate concentration related to PNM's previous remediation of hydrocarbon contamination at the Site (collectively "GWPA Contamination") pursuant to the GWPA and PSTB Regulations. Except as otherwise provided in this MOU, PNM's rights and obligations with respect to the investigation and remediation of the GWPA Contamination shall be governed exclusively by the provisions of the GWPA and the PSTB Regulations. PNM shall submit a proposed Scope of Work to the NMED that conforms to the requirements of the PSTB Regulations.

2. Any contamination in the soils and groundwater at the Site, other than the GWPA Contamination, shall be addressed by PNM, as may be applicable, pursuant to the Abatement Regulations.

3. PNM shall be permitted to investigate potential off-site sources of contamination at the Site in the context of its investigation and remediation activities under this MOU. To the extent that PNM pursues investigation of off-site sources of the GWPA Contamination, it shall be eligible for reimbursement from the CAF in accordance with the GWPA and the PSTB Regulations. In the event it is established that any contamination at the Site originated from an off-site source or sources, PNM shall be relieved of all further obligation and responsibility for such contamination and NMED agrees to pursue appropriate compliance and enforcement action with respect to the responsible party or parties for the originating off-site contamination.

Cost Reimbursement

4. The Parties agree that PNM is entitled to apply for and receive reimbursement from the CAF for approved work associated with the GWPA Contamination pursuant to GWPA and the PSTB Regulations. PNM shall follow the procedures applicable to applying for and substantiating any claims for cost reimbursement from the CAF under the GWPA and the PSTB Regulations. Nothing in this MOU shall be construed to modify the liability of the NMED or the State of New Mexico as provided in §74-6B-14 of the GWPA.

Release

5. In consideration of this MOU, the NMED hereby releases and discharges PNM and agrees not to assert or pursue with respect to PNM or its affiliated companies and their respective officers, directors, employees, agents, insurers and attorneys, any claims relating to any contamination at the Site, including but not limited to claims for monetary and injunctive relief, penalties and past costs incurred by NMED with respect to the Site. However, NMED retains the right to seek enforcement of this MOU, pursue civil or administrative relief for future violations or take emergency response action in the event conditions at the Site present an imminent and substantial endangerment to human health or the environment.

City of Santa Fe

6. PNM shall use commercially reasonable efforts to negotiate with the City for a separate agreement for any necessary access and water rights associated with any NMED-approved investigation and remediation plans for the Site and the City's rights to comment upon and provide input on the investigation and remediation processes. In the event that PNM and the City are unable to reach final agreement, PNM, in its sole discretion, may elect to void this MOU by sending written notice to the NMED within thirty (30) days following a declaration of impasse on reaching an agreement by either the City or PNM. In the event that PNM elects to void this MOU due to an impasse with the City, this MOU shall become null and void and the Parties shall return to their respective rights and obligations under the Agreement as existed prior to the Effective date.

Conditions of MOU

No Admission of Liability

7. The Parties have agreed to settlement of the matters in dispute as referenced above in the Recitals and have further agreed that this MOU and the agreements hereunder shall not constitute evidence or an admission of liability or any fact referenced herein. This is a settlement of a disputed and unliquidated claim and is a full accord and satisfaction thereof.

Termination of Agreement

8. Subject to the provisions of Section 6, the Parties agree that the Agreement shall terminate as of the Effective Date and that the Parties are relieved of all further rights and obligations under the Agreement. The terms of this MOU shall replace and supersede the Agreement. The Parties hereby forever mutually release and discharge one another for any claims of breach or non-performance under the Agreement.

NMED Assistance in Gaining Access

9. In the event PNM is unable to gain off-site access necessary to implement the terms of this MOU and to carry out the agreed investigation and remediation, NMED shall assist PNM, when requested in writing, in gaining such necessary offsite access consistent with the NMED's statutory authority.

Relation to Other Laws

10. All activities required by this MOU shall be conducted in accordance with applicable federal, state and local laws and regulations.

Force Majeure

11. A Party's performance hereunder may be delayed or excused in the event of a force majeure. A force majeure event is defined as any event arising from causes not foreseen and beyond the control of a Party that delays or prevents performance required by this MOU. Force majeure events do not include unanticipated or increased costs of performance, changed economic circumstances, or failure to apply for or diligently seek to obtain necessary federal, state or local permits.

12. A Party claiming force majeure shall provide oral notification that it is invoking force majeure within forty-eight (48) hours after obtaining actual knowledge of the event which constitutes force majeure. A written notice of the bases for the claim of force majeure detailing the facts and circumstances of the event shall be provided within seven (7) business days after oral notification. The written force majeure notice shall provide an estimate of the anticipated length of delay or prevention of performance and a plan for implementing measures to correct the event if possible. The Party claiming force majeure shall undertake all reasonable measures to avoid and minimize any delay or prevention; however no Party shall be required to settle any labor dispute as a mitigating measure. Failure to comply with the notice provisions and related requirements shall be deemed a waiver of a Party's right to claim force majeure.

Conditions of MOU

- **Amendments**

- 13. This MOU may only be amended in writing with the mutual agreement of the Parties.

- **Choice of Law**

- 14. This MOU shall be construed in accordance with New Mexico law without regard to choice of law considerations.

- **Entire Agreement**

- 15. This MOU contains all of the terms and conditions of the settlement agreement between the Parties and supersedes all prior written and oral agreements of the Parties with respect to the matters addressed herein.

- **No Third Party Beneficiary**

- 16. This MOU is intended for the exclusive benefit of the Parties. Nothing in the MOU shall be construed as conferring any benefits or rights to any third-parties.

- **Enforcement**

- 17. This MOU may be enforced by means of a civil action filed in the First Judicial District Court in Santa Fe County, New Mexico.

Delphi Study

**Contractor Selected Pursuant to MOU and NMED CAF Groundwater
PNM Chose and NMED approved Delphi Environmental.**

Sampling

During the month of August 2016, groundwater sampling was performed at each of the monitoring wells. The wells were sampled according to Underground Storage Tank Bureau(USTB) Guidelines for Corrective Action. The static water levels were measured in all wells using a decontaminated Solinst electronic well sounder with accuracy to 0.01 feet. The site top of casing elevations for monitoring wells were provided by various surveys.

Sampling Protocol

All on-site and off-site groundwater monitor wells were gauged during the month of August 2016 and sampled between August 1 and August 18, 2016. Groundwater levels in all groundwater monitoring wells were gauged to the nearest 0.01 foot using a decontaminated Geotechnical Instruments Well Sounder prior to sampling. Sampling protocols varied slightly depending upon the well type, location, and installed sampling equipment.

Delphi Sampling and Report

Objectives

In order to assess current ground water quality the following work plan tasks were approved:

- Tabulate all reported water quality analyses and groundwater elevations into a spreadsheet. Data shall be compiled for benzene, toluene, ethylbenzene, and xylenes (BTEX), total naphthalenes, Methyl Tertiary Butyl Ether (MTBE), 1,2-Dibromoethane EDB), and (1,2-Dichloroethane) EDC. Spreadsheets shall be provided in a hard copy readable format.
- Inspect the completions of all monitoring wells associated with the investigation of the Santa Fe Generating Station. Gauge depth to water (DTW) and total depth (TD) of all monitoring wells. Note whether well contains a submersible pump and the type of condition. This task included the following wells:
 OS-4A, 5, 6, 7, 8, 19, 12, 13, 14, 15, 16, 17, 18, 19, 20
 USTB-1 thru USTB-17
 PNM-1, 2
 CSF-1
 CA-1 (CAT-1)

Delphi Investigation

Report the condition of monitoring well completions, well caps, locks, etc., including:

- photographs of wells with deficiencies. Report DTW and TD of all wells, including wells that are dry. Document wells with submersible pumps. Provide a letter Report with tabulated data of the findings.

Groundwater sampling shall be performed at each of the monitor wells:

- USTB: 1, 2, 3, 5, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17
- OS: 4A, 6, 10, 12, 13, 14, 15, 17, 18, 19
- PNM: 1, 2
- CSF-1, CA-1

Results of Delphi Sampling in 2016

The results of the ground water analyses showed monitoring wells USTB-11, OS-13, OS-14, and PNM-1 with concentrations of benzene above NMWQCC standards. Figure(s) 3-7 provide a site map with the location of the monitoring wells and attached groundwater quality data. Table 1 provides a summary of the groundwater quality data. Copies of analytical laboratory reports are included in Appendix C. A summary of current and historical analytical laboratory data for the subject site shall be provided separately in an excel database.

The highest observed benzene concentration was reported in monitor well OS-13 with a benzene concentration of 1500 ug/l. NMWQCC standards were also exceeded for EDB (USTB-11), EDC (USTB-11 & OS-13), and for total naphthalenes (USTB-11 & OS-13). USTB-17 showed NAPL of approximately 0.01 feet and was not sampled. Wells exceeding NMWQCC standards are shown in bold.

<u>Monitoring Well</u>	<u>Benzene (ug/l)</u>	<u>EDB 504.1(ug/l)</u>	<u>EDC (ug/l)</u>	<u>Total</u>
<u>Naphthalenes(ug/l)</u>				
USTB-11	660	4.1	21	41.5
OS-13	1500	1.1	84	89
OS-14	81	<0.01	1.6	<4.0
PNM-1	17	<0.0	1.2	<4.0

Delphi Report

Conclusions

Delphi performed groundwater monitoring in conformance with the scope of work. The groundwater monitoring has revealed that NMWQCC standards have been exceeded for benzene in monitoring wells: USTB-11, OS-13, OS-14, and PNM-1. In addition, monitoring wells USTB-11 and OS-13 exceed NMWQCC standards for total naphthalene. The combined concentrations include naphthalene, 1-methyl naphthalene, and 2-methyl naphthalene. Monitoring wells USTB-11 and OS-13 exceeds NMWQCC standards for EDB, and monitoring well USTB-11 and OS-13 exceeded NMWQCC standards for EDC.

Groundwater levels have increased an average of approximately 20 feet since the Santa Fe well was shut down in August of 2013. This increase in groundwater elevations, and limited sampling within the past few years, make it difficult to establish groundwater contamination trends. The complex geology at the site also poses a challenge with regard to source or sources of the contamination. It is not apparent if groundwater contamination is migrating from an offsite upgradient source. There are believed to be at least four groundwater zones with differing aquifer response, and all are dependent upon localized groundwater pumping. The limited number of monitoring wells and the varying zones provide a challenge in defining the contamination and establishing an accurate groundwater gradient. Overall, the contamination does appear to be localized and does not pose any immediate threats to onsite or off site receptors

Delphi Report

Recommendations

- Based on the data collected, ground water quality remains impaired and will require periodic monitoring. This may include either quarterly monitoring, or possibly on a semi-annual basis. The concentrations are relatively low, pose minimal risk, and are not an immediate threat to health and the environment. With the exception of the Santa Fe well, which is currently shut down, there are no known drinking water sources in the immediate vicinity or any known pathways or receptors that are cause for concern. Future use of the Santa Fe Well is undetermined. Available monitoring wells sampled do not fully characterize the horizontal and vertical extent of the contamination, but do provide a good indication of current groundwater quality conditions.
- Groundwater monitoring should be continued with the New Mexico Environment Department-Petroleum Storage Tank Bureau (NMED-PSTB). Discussions should be conducted with the NMED's Project Manager responsible for this site to determine the next course of action, and if deemed necessary, and any site requirements. There is a need for additional upgradient monitoring wells. A current monitoring well survey may be warranted since top of casing well elevations appear to be inconsistent as a result of multiple surveys. Additional research also needs to be conducted on monitoring well screen intervals located in the various groundwater zones. This information is critical in determining the correct groundwater gradient. A hydrogeologic report was recently completed by Dr. John W. Hawley Ph.D., entitled *Hydrogeologic Framework of the Public Service Company of New Mexico Santa Fe Generating Station Site and Surrounding Parts of Santa Fe New Mexico-With Emphasis on Hydrogeologic Controls on Contaminant Transport in the Vadose and Saturated Zones*. Information contained in this report will provide additional insight to the complex hydrogeologic conditions in and around the former Santa Fe Generating Station site and the Santa Fe Well site.

Recent Steps

- The City met with NMED Petroleum Storage Tank Bureau (PSTB) on December 12th for review and discussion of a continued and revised work plan and new contract for continued investigation of the Baca Street Well and former SF Generating Station site. The site has been listed as a Priority 1 Site for the New Mexico Corrective Action Fund.
- A new Investigation Work Plan and Cost Estimate for Additional Site Investigation and Groundwater Monitoring Activities was also submitted by INTERA (PNM's chosen contractor under Petroleum Corrective Action Fund (CAF) Program) on December 19th, containing many of the revisions requested by the City. Expected costs of additional investigation in Fiscal Year 2017-2018 is approximately \$750,000.
- This work plan has now been fully approved and funded by the NMED under the CAF. The contract was awarded to INTERA Inc. The City's environmental staff is working with the NMED-PSTB and INTERA to provide access to the site for water level monitoring, sampling, and the drilling of new wells. Work at the site is expected to be initiated on March 12th with drilling to occur on March 13th.

Scope of Phase II Investigation by INTERA

The project objectives are to continue assessment activities at the Site to delineate the dissolved phase contaminant plume and to assess impact to nearby water wells. The scope of work is divided into the following tasks:

- Task 1: Work Plan Development
- Task 2: Site Reconnaissance, Monitoring Well Rehabilitation, and Project Preparation
- Task 3: Drilling and Monitoring Well Installation
- Task 4: Groundwater Monitoring Event
- Task 5: Reporting
- Task 6: Database Repair and Update

New Monitoring Wells under INTERA Work Plan

The following seven new monitoring wells will be installed in the following order at the Generating Station Site and Surrounding Areas:

- USTB-18 (deep monitoring well paired with USTB-17)
- USTB-22 (deep)
- USTB-20 (deep)
- USTB-23 (deep)
- USTB-24 (deep)
- USTB-19 (shallow)
- USTB-21 (shallow)

INTERA DRILLING SCHEDULE

Thursday, March 7th: 9AM meet utility locators at Site

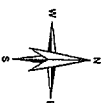
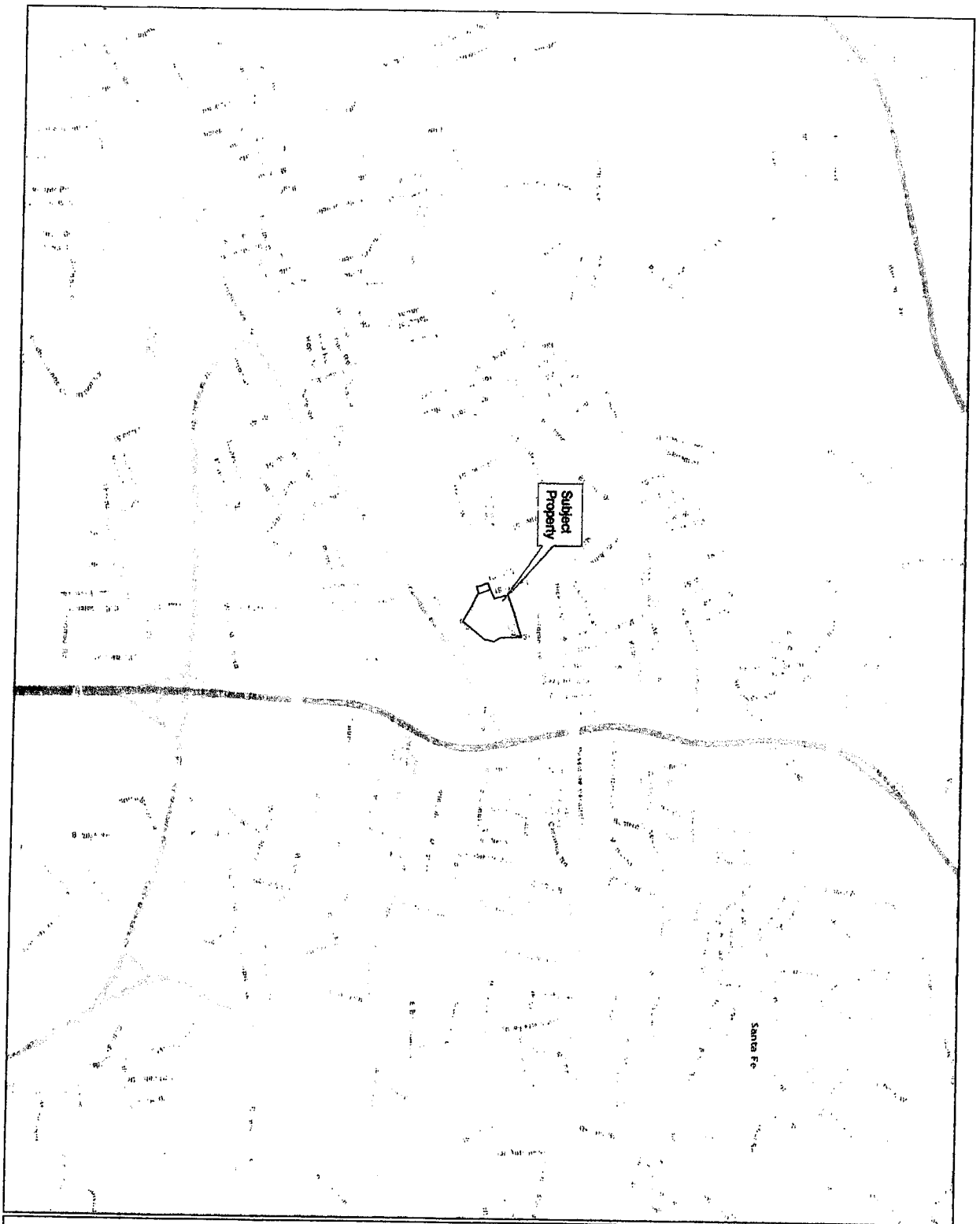
Monday, March 12th: Cascade drilling mobilizes to site,

Tuesday, March 13th through Wednesday, March 21st: First drilling tour

Monday, March 26th through Friday, March 30th: Second drilling tour

Wednesday, April 4th through completion: Third drilling tour

Alex Pustisi's narrant
7 new wells to begin drilling on 3/12-3/13 2018



0 2,000 4,000 Feet
1 inch = 2,000 feet

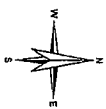
Legend

- ☐ Parcel Santa Fe Generating Station
- ☐ Parcel Santa Fe Well

Figure 1
Site Location Map
Santa Fe Generating Station

Checked JH 3/15/16
Drawn MS 3/15/16

Erin A



0 2,000 4,000 Feet

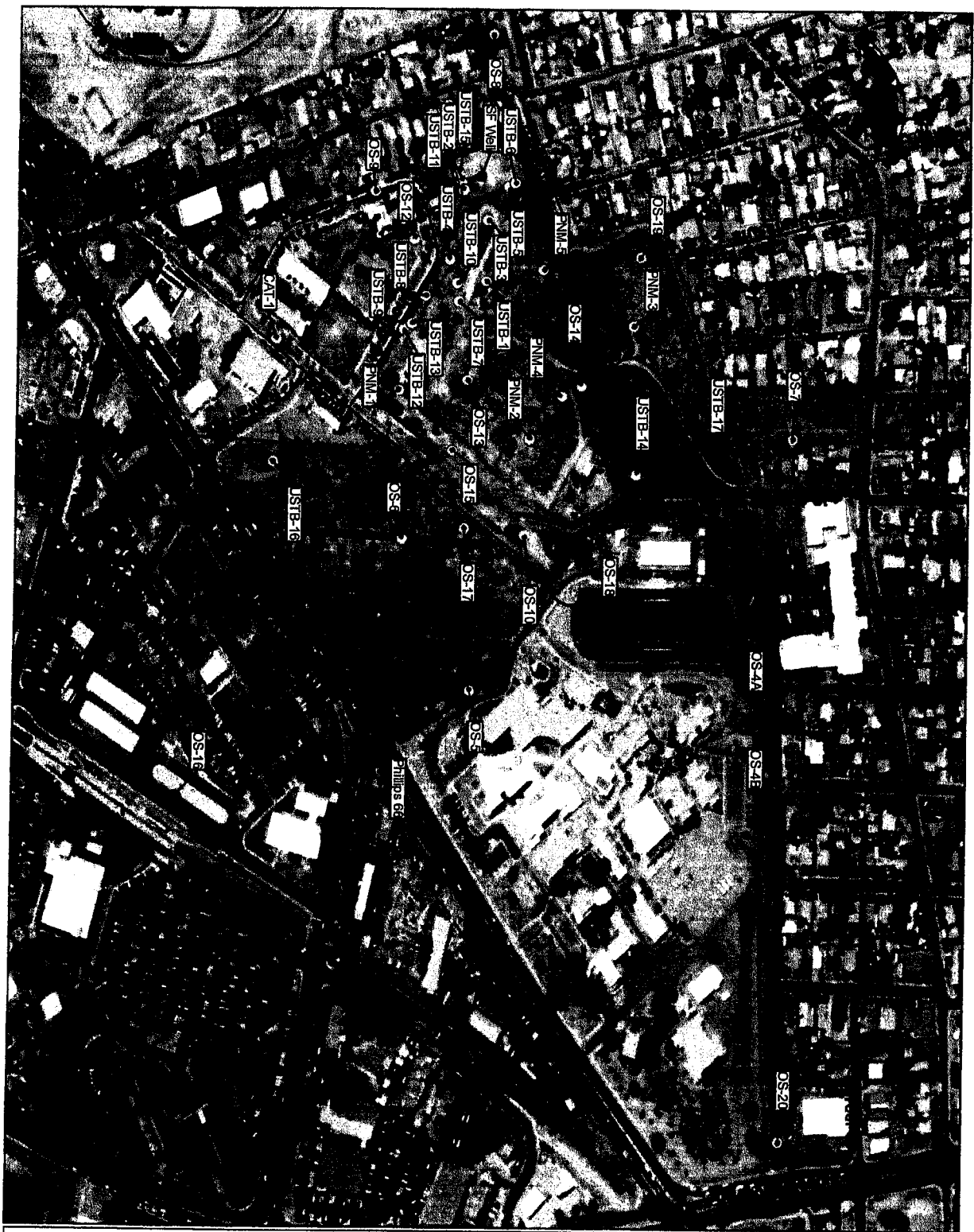
1 inch = 2,000 feet

Legend

- ☐ Parcel Santa Fe Generating Station
- ☐ Parcel Santa Fe Well

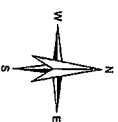
Figure 2
Site Topographic Map
Santa Fe Generating Station

Checked JH 3/15/16
Drawn MS 3/15/16



Legend

- ☐ Parcel Santa Fe Generating Station
- ☐ Parcel Santa Fe Well
- Santa Fe Well
- Monitoring Wells
- Monitoring Well With NAPL
- Dry Monitoring Well
- Plugged Monitoring Well
- Unable to Locate



0 300 600
Feet
1 inch = 300 feet

Figure 3
Site Map
Santa Fe Generating Station

Checked JH 10/13/16
Drawn MS 10/13/16



Legend

- Parcel Santa Fe Generating Station
- Parcel Santa Fe Well
- Santa Fe Well
- Monitoring Wells
- PNM-1 Concentration Above 17 NMWQCC Standard

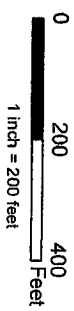
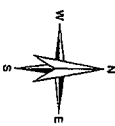


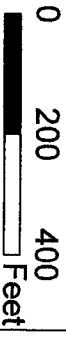
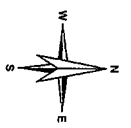
Figure 4
Santa Fe Generating Station
Benzene Concentrations (ug/L)

Checked JH 10/13/16
 Drawn MS 10/13/16



Legend

- Parcel Santa Fe Generating Station
- Parcel Santa Fe Well
- Santa Fe Well
- Monitoring Wells
- USTB-11 Concentration Above 4.1 NMWCC Standard



1 inch = 200 feet

Figure 6
Santa Fe Generating Station
EDB Concentrations (ug/L)
EPA Method 504.1

Checked JH 10/13/16
 Drawn MS 10/13/16



Figure 7
Santa Fe Generating Station
EDC Concentrations (ug/L)

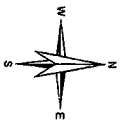
Checked JH 10/13/16
Drawn MS 10/13/16

Drawn MS 10/13/16



Legend

- ☐ Parcel Santa Fe Generating Station
- ☐ Parcel Santa Fe Well
- Santa Fe Well
- Monitoring Wells Sampled
- USTB-11 Concentration Above 41.5 NMWOC Standard



1 inch = 200 feet

Figure 8
Santa Fe Generating Station
Total Naphthalenes
Concentrations (ug/L)

Concentrations include:
 naphthalene
 1-methylnaphthalene
 2-methylnaphthalene
 Checked JH 10/13/16
 Drawn MS 10/13/16

