

## Agenda

Santa Fe River Commission Agenda
Thursday, March 12, 2020
6 pm to 8 pm
500 Market Street, Suite 200, Santa Fe, NM
Roundhouse Conference Room
505-955-6840

- 1. ROLL CALL
- 2. APPROVAL OF AGENDA
- 3. APPROVAL OF MINUTES FROM FEBRUARY 13, 2020
- 4. COMMUNICATION FROM OTHER AGENCIES / COMMITTEES
  - a. SF Watershed Report (Andy Otto, andy@santafewatershed.org, 820-1696)
- 5. INFORMATION/DISCUSSION/ACTION:
  - a. Message from the Chair (Zoe Isaacson, River Commission Chair, zoe.isaacson@gmail.com).
  - b. Surface to Groundwater Monitoring Study for the Santa Fe River (Alan Hook, Water Resource Coordinator, 955-2402, <a href="mailto:aghook@santafenm.gov">aghook@santafenm.gov</a> and Steve Finch, John Shoemaker & Associates)
  - c. Review of Living River Target Flow Process (Melissa McDonald, River and Watershed Manager, 955-6840, <a href="mailto:mamcdonald@santafenm.gov">mamcdonald@santafenm.gov</a>)
  - d. City of Santa Fe Source Water Protection Plan (Alex Puglisi, Environmental Compliance, 955-4232, aapuglisi@santafenm.gov)
  - e. WOTUS update (Alex Puglisi, Environmental Compliance Officer, aapuglisi@santafenm.gov)
  - f. River Commission Work Group Break Out Session—(RiverTalks, Education & Living River Initiatives, River Corridor Master Plan) (Zoe Isaacson, River Commission Chair, zoe.isaacson@gmail.com)
- 6. MATTERS FROM STAFF

## **Next Meeting:**

- Action Item-Living River Target Flow & Hydrograph
- Presentation on Wildlife within the Santa Fe River Corridor, Daryl Ratajczak with SF National Forest and Andrew with Black National Wildlife Federation and River Commission Member.
- 7. CITIZENS' COMMUNICATION FROM THE FLOOR
- 8. MATTERS FROM COMMISSIONERS
- 9. ADJOURN

Next Scheduled River Commission Meeting is scheduled for April 9, 2020 Captions & Packet Material are due by 10 am on April 1, 2020

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.

**RECEIVED AT THE CITY CLERK'S OFFICE** 

DATE:

March 4, 2020

TIME:

10:04 AM

## Summary Index Santa Fe River Commission March 12, 2020, – 6:00 PM

<u>rtem</u>	<u>ACTION</u>	PAGE(S)
CALL TO ORDER	6:03 PM	1
ROLL CALL	Quorum present	1
APPROVAL OF AGENDA	Approved	1
APPROVAL OF MINUTES February 13, 2020	Approved	ı
COMMUNICATION FROM OTHER AGENCIES/COMMITTEES SF Watershed Report	Informational	2
INFORMATION/DISCUSSION/ACTION Message from Chair	l: Informational	2
Surface to Groundwater Monitoring Study for the Santa Fe River	Informational	2-3
Review of Living River Target Flow Process	Informational	3
City of Santa Fe Source Water Protection Plan	Informational	3-4
WOTUS Update	Informational	4-5
STAFF COMMUNICATIONS	None	5
CITIZEN'S COMMUNICATIONS	None	5
MATTERS FROM COMMISSIONERS	None	5
ADJOURN	8:00 P.M.	5

## MINUTES OF THE SANTA FE RIVER COMMISSION THURSDAY, MARCH 12, 2020, 6:00 PM

## **CALL TO ORDER**

Rachel Kullman, Vice-Chair of the Santa Fe River Commission, called the meeting to order at 6:03 p.m. in the Conference Room of the Railyard Market Station Offices, 500 Market Street, Santa Fe, NM.

## **ROLL CALL**

Roll Call indicated the presence of a quorum, as follows:

## Present:

Rachel Kullman, Vice-Chair Phillip Bove (arrived @ 6:31) Susan Coulter County Commissioner Anna Hansen Heidi Klingel Vanessa Springer (Alternate) arrived @ 6:06

## **Excused:**

Zoe Isaacson, Chair Andrew Black Emile Sawyer (Alternate)

## **Staff and Others Present:**

Melissa McDonald Morika Hensley, Watershed Association Melissa Byers, Stenographer

\*NOTE:

The original meeting packet is on file with City Staff. Any materials submitted at the meeting are marked as exhibits.

## APPROVAL OF AGENDA

**MOTION:** 

Commissioner Klingel moved to approve the agenda as presented. Commissioner

Coulter seconded the motion. The motion passed by unanimous voice vote.

## **APPROVAL OF MINUTES FROM FEBRUARY 13, 2020**

**MOTION:** 

Commissioner Klingel moved to approve the minutes of February 13, 2020. Commissioner Coulter seconded the motion. The motion passed by unanimous

voice vote.

## **COMMUNICATION FROM OTHER AGENCIES /COMMITTEES:**

## SF Watershed Report

Ms. Hensley spoke about the success of Love Your River Day. She also went over the Santa Fe Watershed Report for the month of February 2020. The report is attached as Exhibit 1.

Ms. McDonald reported that the Governor had banned organized activities over 100 people. She also stated that it looks like the field trips are going to be cancelled with Santa Fe Public Schools.

## INFORMATION/DISCUSSION/ACTION:

## a. Message from the Chair (Zoe Isaacson, River Commission Chair)

Ms. McDonald announced that Chair Isaacson had accepted a job with the City, therefore, she will be resigning from the Commission. Ms. McDonald read Ms. Isaacson's letter of resignation into the record. The letter is attached as Exhibit 2.

Ms. McDonald said she had been moved up to Manager and Ms. Isaacson will be the coordinator.

Ms. McDonald explained that there were two issues for the Commission to deal with. The first is that Vice Chair Kullman, will move to Chair. The Chair will appoint the Vice Chair. Ms. McDonald asked that whoever would like to be Vice Chair to reach out to Chair Kullman. She asked Commissioner Springer, Alternate Commissioner, if she was interest in becoming a permanent commissioner. Commissioner Springer indicated her acceptance as a permanent commissioner. The second issue is that Commissioner Springer's alternate position needs to be filled. Once there is a list of names for the alternate position, the Commission will go through that process.

Chair Kullman asked everyone to spread the word about the vacancy for an alternate.

Commissioner Hansen asked if there are any geographical representations on the Commission. She lives in the City and the Village of Agua Fria is not represented. The Southern part of the City is underrepresented. It would be nice to have some male colleagues.

Ms. McDonald said people who live in the County can serve

b. Surface to Groundwater Monitoring Study for the Santa Fe River (Alan Hook, Water Resource Coordinator, 955-2402, aghook@santafenm.gov and Steve Finch, John Shoemaker & Associates)

Mr. Hook said Steve Finch was there to present the PowerPoint called Santa Fe River Surface Water Groundwater Interactions, a PowerPoint presentation which is attached as Exhibit 3.

The presentation is summarized as follows:

- 1. The SF River surface water and groundwater monitoring system helps track target flows from Living River initiative.
- 2. Restoration channel and Two-Mile pond receive continuous flows from infiltrated stream flow above Old Stone Dam.
- 3. Most of the Living River Target Flows infiltrate and recharge the aquifer
- 4. Some stream flow travels past PRWRF during spring pulse and above normal spring lows
- 5. City Well Field Optimization study conclude that recharge from SFR flows are needed to sustain City Well Field groundwater supply

There was discussion about the presentation.

c. Review of Living River Target Flow Process (Melissa McDonald, River and Watershed Manager, 955-6840, <a href="mailto:mamcdonald@santafenm.gov">mamcdonald@santafenm.gov</a> & Alan Hook, Water Resources Coordinator, 955-2404, aghook@santafenm.gov.

Ms. McDonald said next month the Commission is going to be asked to look at the target flow administrative procedures.

Mr. Hook handed out a *Target Hydrograph: 1,000 acre feet*, attached as Exhibit 4. He said this body helps guide what is being projected. He explained the Hydrograph to the Commission and said that there are some modifications that can be done.

Mr. Hook also handed out the USDA NRCS Water and Climate Center report which is herewith attached as Exhibit 5. He explained the content of the report to the Commission.

d. City of Santa Fe Source Water Protection Plan (Alex Puglisi, Environmental Compliance, 955-4232, aapuglisi@santafenm.gov&nbsp

Ms. McDonald said she wanted to talk about what's being requested.

Mr. Puglisi said in 2017 the City entered into a source water protection plan with NMED and they produced a plan. The City found a number of deficiencies in the plan. Basically, the City needs to identify its sources of water, potential threats to that and within a certain distance identify the actions that need to be taken and how the City is going to take them. What was deficient in the plan were a number of sources of contamination and they identified more wells than the City has. They relied on a plan put together in 2001 which was a big part of the plan. The City rejected the plan and has been trying to reinvigorate this plan for several years with them. They recently

identified some funding to work on this. Staff has met with them several times. We are excited about this effort.

Mr. Puglisi said the Water Division is working on information that will feed into the plan which will be more accurate than what was used by the former contractor. We are also including what we view as one of the largest contaminators to our ground water which is fire.

Part of the process is it has to go out to the public. Staff sees this as a perfect opportunity for the River Commission to assist staff with this.

Ms. McDonald said it is also something the Mayor and Governing Body want you to do. Staff wants the Commission to be part of the process of educating the community. As this goes forward, the document will be brought to the Commission for review. This will be happening within the next six to eight months.

Commissioner Hansen said at BDD a mediator was hired and they are moving towards developing a plan.

Mr. Puglisi said staff is doing it a bit differently, but we will work together on this. There are also technical issues that have to be worked out.

Commissioner Hansen reported that she and Alex have a seat at the table on a committee working with LANL about clean up.

## e. WOTUS update (Alex Puglisi, Environmental Compliance Officer, aapuglisi@santafenm.gov)

Mr. Puglisi said nothing has happened, the time clock is not counting down yet. The State doesn't know why it hasn't happened. This is an opportunity for the Commission to get involved. The City and State need to step up and protect surface water and groundwater. There needs to be planning and zoning around the river and protection of the riparian zone from development.

Ms. McDonald said staff was hoping for more information from the State at this point. There was a webinar that was worthless. We don't have a lot of information. There's an interest given in that we're 49<sup>th</sup> in the Country. The City may want to look at overlays. The Commission was instrumental in encouraging the City to comment.

Commissioner Hansen commented that the Commission could have a big influence here.

Chair Kullman asked if it made sense to form a subcommittee to keep things going.

Ms. McDonald said they'd give a timeline and maybe they can formulate around that.

Commissioner Klingel asked if there was any news on the budget increase.

Mr. Puglisi said they didn't get the amount they were asking for.

## f. River Commission Work Group Break Out Session - (RiverTalks, Education and Living River Initiatives, River Corridor Master Plan)

This item was postponed.

MATTERS FROM STAFF	
None.	
CITIZENS' COMMUNICATION FROM THE	FLOOR
None.	
MATTERS FROM COMMISSIONERS	
None.	
ADJOURN	
Chair Kullman adjourned the meeting at 8:0	00 p.m.
	Approved by:
Submitted by:	Rachel Kullman, Chair
Submitted by:  Meline D. Byers	
Melissa D. Byers, Stenographer Byers Organizational Support Services	

## EXHIBIT 1

**MONTHLY REPORT: February 2020** To: The City of Santa Fe River & Watershed Coordinator

From: Santa Fe Watershed Association

Date: February, 2020



**ASSOCIATION** 

RE: Adopt-the-River Program

1413 Second Street, Suite 3 Souto Fa. NM 87 505 (309) 820-1696 + tax 986-9152 mon@santafewatershod.org www.santafewatershed.org

## Task 1. Plan for Restoring and Maintaining 26 Adopted Reaches and Arroyos

- √ 2/4/20, Mandela International Magnet School (MIMS) cleaned Reach 26.
- √ 2/12/20, Angel volunteers from Vail, CO cleaned Reach 12. Needles and homeless activity.
- ✓ 2/12/20, Angel volunteers from Vail, CO cleaned the Arroyo Mascaras. Needles and homeless activity under W Alameda bridge, still evidence of fire from several months ago.
- ✓ 2/15/20, SFCSPL, SFHS, CHS, WWWOW, Rotary Club, St. Elizabeth's Shelter, MIMS, SFIS, Amma, Tom Rebstock, Mike Thompson, and general volunteers cleaned the River between Patrick Smith Park and San Isidro Crossing, as well as the Arroyo de los Pinos and the Arroyo de los Chamisos as part of the "Love Your River Day" community cleanup event.
- √ 2/26/20, Angel volunteers from the International Rotary Exchange cleaned Reach 13 and 14. Homeless activity and unsubstantiated report of human trafficking and blockage of storm pipes.
- √ 2/27/20, Peter Olson observed a queen sized mattress under Paseo de Peralta Bridge on the River.
- √ 2/28/20, Peter Olson observed well-established homeless camps under Old Taos Highway on Arroyo Barranca.
- ✓ 2/29/20, NM State Land Office cleaned Reach 11.
- √ 2/29/20, NM State Supreme Court Building Commission cleaned Reach 12.

## TASK 2. COORDINATE VEGETATION MANAGEMENT IN ACCORDANCE WITH THE CITY'S COMPREHENSIVE VEGETATION MANAGEMENT PLANNING

No vegetation management in the month of February.

## Task 3. REPORT ON STEWARDS AND MONETARY SPONSORS

- All reaches of the river have sponsors except for the San Isidro Crossing Reach and Reach 28.
- ✓ SFWA is actively looking for sponsors and stewards for the Adopt-an-Arroyo and Adopt-the-River programs.
- ✓ Administrative Director Raquel Baca-Tompson is sending out and tracking Sponsor renewals as well as approaching potential Sponsors.
- ✓ Volunteer Coordinator Keely Jackson-Kennemore is sending 2020 River Steward agreements and tracking Steward renewals.
- ✓ Program Coordinator Morika Hensley is sending 2020 Arroyo Steward agreements, tracking Steward renewals, approaching new potential Stewards, and working with Santa Fe Public Schools to increase student engagement throughout the watershed.
- Santa Fe Community Yoga and Endurance Santa Fe have joined as new steward teams.

From: Santa Fe Watershed Association Date: February, 2020

✓ Volunteer Coordinator Keely Jackson-Kennemore and Program Coordinator Morika Hensley continue to encourage Steward groups to clean their reaches and occasionally other reaches in need of a cleanup.

TASK 4. ORGANIZE AND SUPPORT TRASH REMOVAL AND VEGETATION MANAGEMENT

Reach Report for February 2020 totals for the seventh month of FY 2019-2020 are as follows:

•	•			
	Reaches/visits	Volunteers	Trash Bags Collected	Volunteer Hours
July-January				
River	49	348	552	554
Arroyos	12	62	164	119.5
Totals	61	410	716	673.5
February				
River	11	183	237	271
Arroyos	5	14	24	19
Totals	16	197	261	290
<b>Totals Combined</b>	77	607	977	963.5

The value of the volunteers' in-kind contributions in City river reaches and arroyos to date in FY 19/20 (eighth month) is approximately §24,501.81 (963.5 hours @ \$25.43; see www.independentsector.org/volunteer\_time).

The approximate total weight of trash collected to date in FY 19/20 (eighth month) is 7.32 tons (977 bags \* 15 lbs/bag \* 1/2000 tons/lb)

## TASK 5. POST SIGNS FROM ARMIJO PARK TO FRENCHY'S FIELD

- ✓ Keely Jackson-Kennemore, Morika Hensley and Andy Otto regularly check signs for wear and tear.
- City staff continues to help with post and sign installation for the arroyo reaches.
  - SFWA will be requesting meeting with City staff to determine proper sign installation for new sponsor reaches.

## TASK 6. PROVIDE TRAINING AND EDUCATION FOR VOLUNTEERS REGARDING RIVER & ARROYO RESTORATION

- ✓ During cleanups that Keely and Morika attend, they speaks to the volunteers about water conservation and water challenges in the Southwest.
- ✓ We are training volunteers on tabling at events to promote the Adopt-an-Arroyo Program.



## **MONTHLY REPORT: February 2020**

To: The City of Santa Fe River & Watershed Coordinator From: Santa Fe Watershed Association

Date: February, 2020

## TASK 7. ORGANIZE THREE COMMUNITY-WIDE EVENTS

- ✓ Love Your River Day on February 15<sup>th</sup>, was held from 10:00am to 12:00pm, at Frenchy's Field Barn. There were a total of 167 participants, who collected 274 bags of trash.
- ✓ The next community cleanup event will be the Great American River cleanup, in June.

## TASK 8. COORDINATE WITH CITY STAFF TO TAKE ALL ACTIONS IN COMPLIANCE WITH THE CITY.

- ✓ Keely Jackson-Kennemore and Morika Hensley notify River and Watershed Coordinator Melissa McDonald and Parks Superintendent Chris Ortiz about each Steward clean-up outing to schedule trash collection. They also relay observations that received from Stewards to Melissa McDonald and Chris Ortiz.
- ✓ Homeless activity was discovered in and around the river on several reaches. Please see Task 1 for a list.

## TASK 9. SEND MONTHLY REPORTS OF WORK DONE THE PREVIOUS MONTH.

✓ We are hereby providing report of activity for February 2020 to the City of Santa Fe River and Watershed Coordinator.

## TASK 10. CONDUCT PUBLIC OUTREACH TO PROMOTE PROGRAMS AS WELL AS TO THANK SPONSORS AND STEWARDS. INCLUDE PRESENTATIONS TO NEIGHBORHOOD MEETINGS AND COMMUNITY EVENTS, AND MAINTAIN A WEB SITE.

- ✓ We have been using social media sites as well as volunteermatch.com, to thank volunteers
  and to recruit new volunteers for River and Arroyo Stewardship.
- ✓ We are tabling at various events to promote and educate the community on the Adopt-an-Arroyo Program.

Submitted by: Morika Hensley, SFWA Program Coordinator

Our River, Our Water, Our Future



Santa Fe River Commission March 6, 2020

Dear Commissioners,

I regret to inform you that I will be resigning from the River Commission effective immediately. While I am sad to leave the Commission as a volunteer, my new role as the River and Watershed Coordinator for the City of Santa Fe will allow me to continue my involvement with the Commission.

I am grateful for having had the opportunity to serve on the River Commission for the past four years and I am proud of what we have accomplished in that time. I offer my best wishes for the Commission's continued success.

I look forward to working together and continuing the advancement of river and watershed health within our community,

Zoe Isaacson

Chairwoman, Santa Fe River Commission

Toe Saason\_

## GIROUMDWATHER INTERACTIONS. SANTER PERKINDER SURFACE WATER

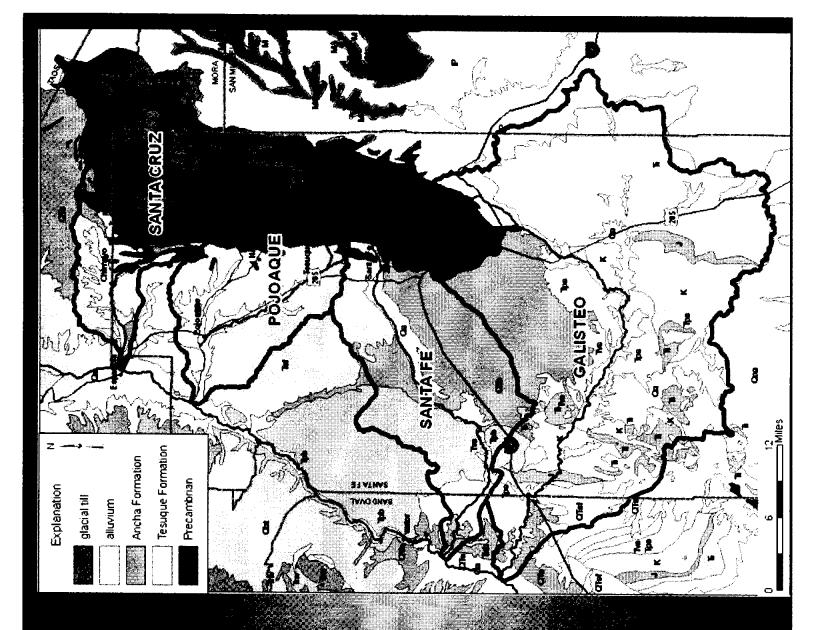
Santa Fe<sup>\*</sup>River of South Meadows Rd bridge June 19, 2019



Steven Finch, JSAI Alan Hook, City of Santa Fe

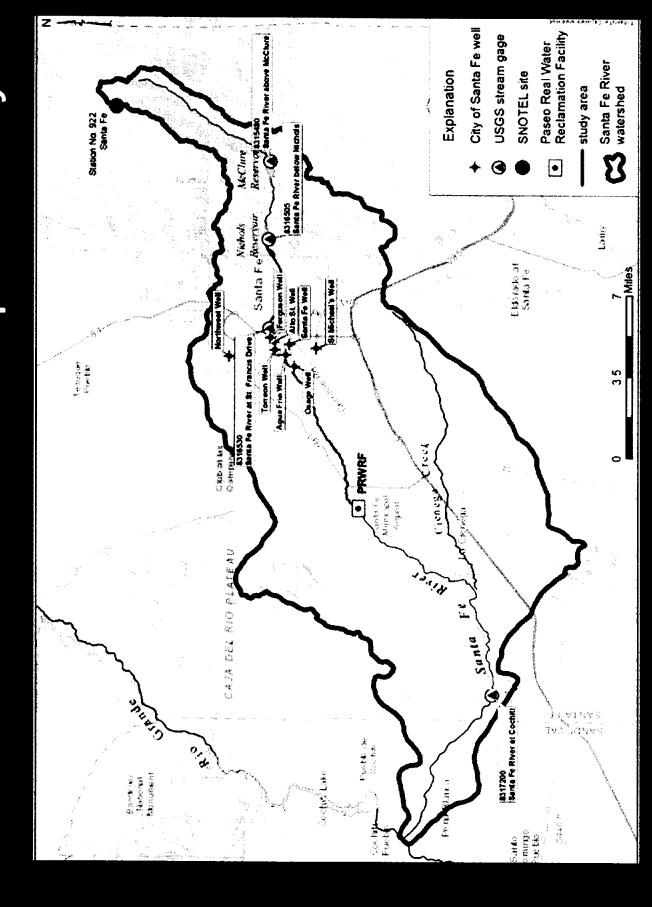
March 2020

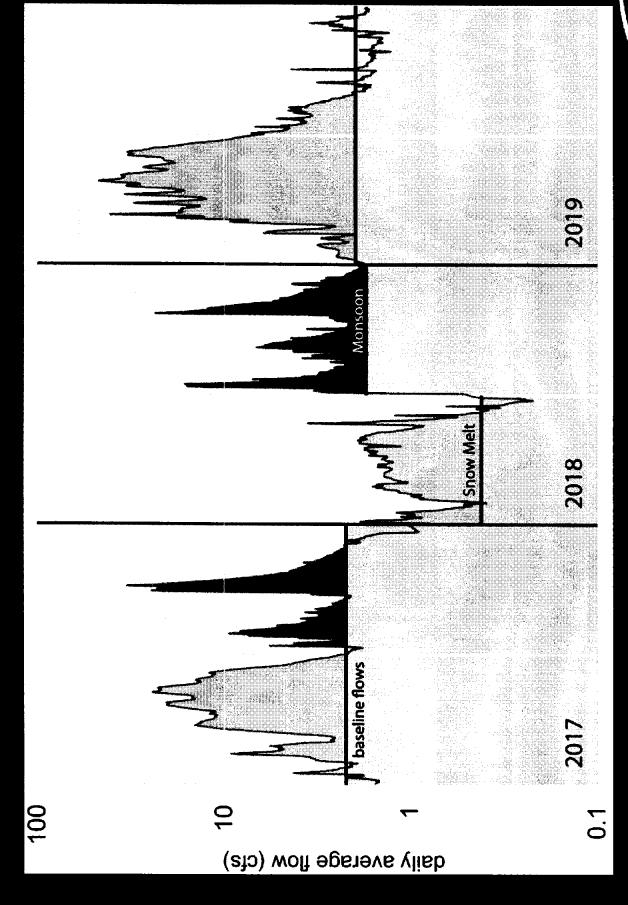




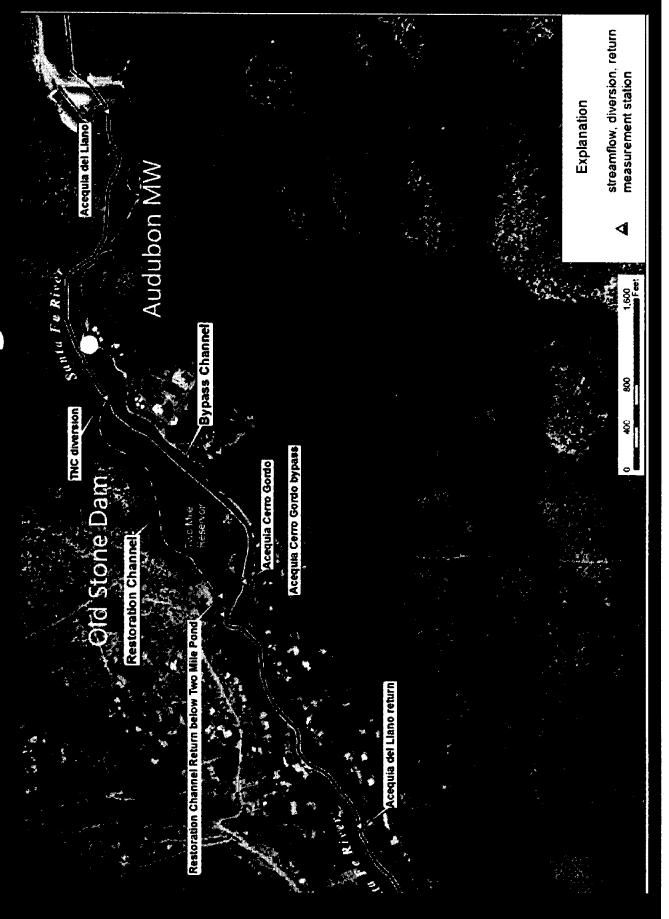
Surface water – groundwater interactions start in the upper reaches of the watershed

# Santa Fe River watershed map and study area

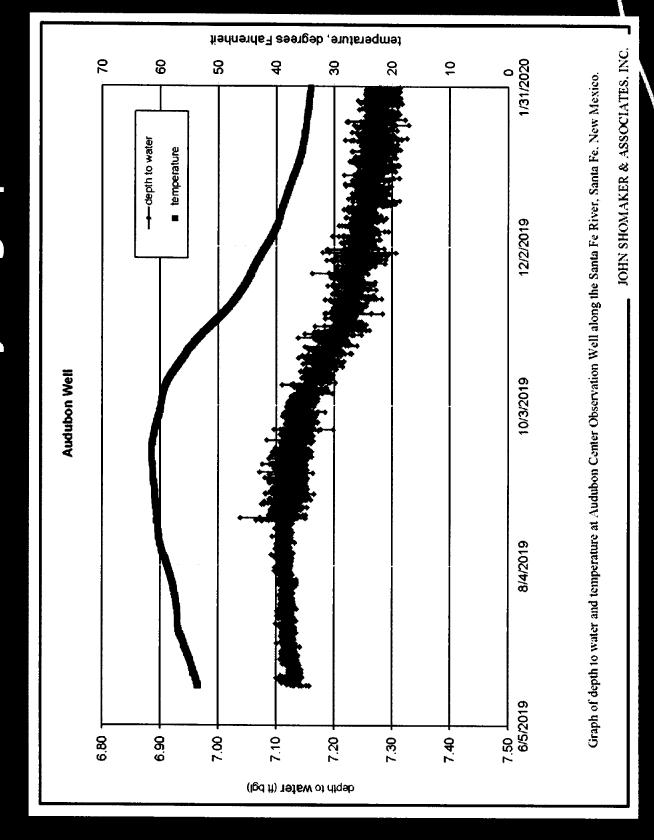




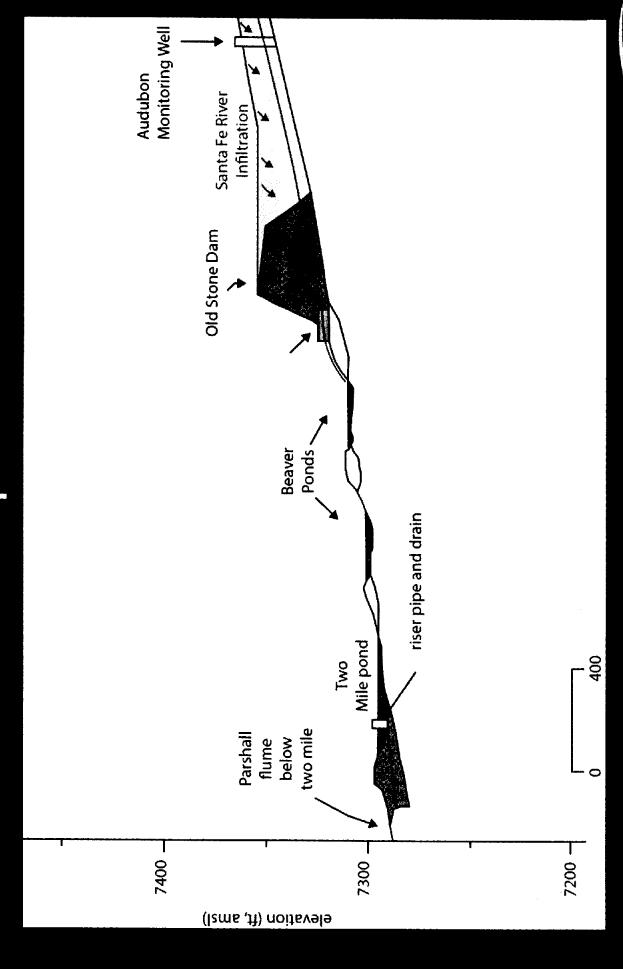
## Two Mile Monitoring Locations



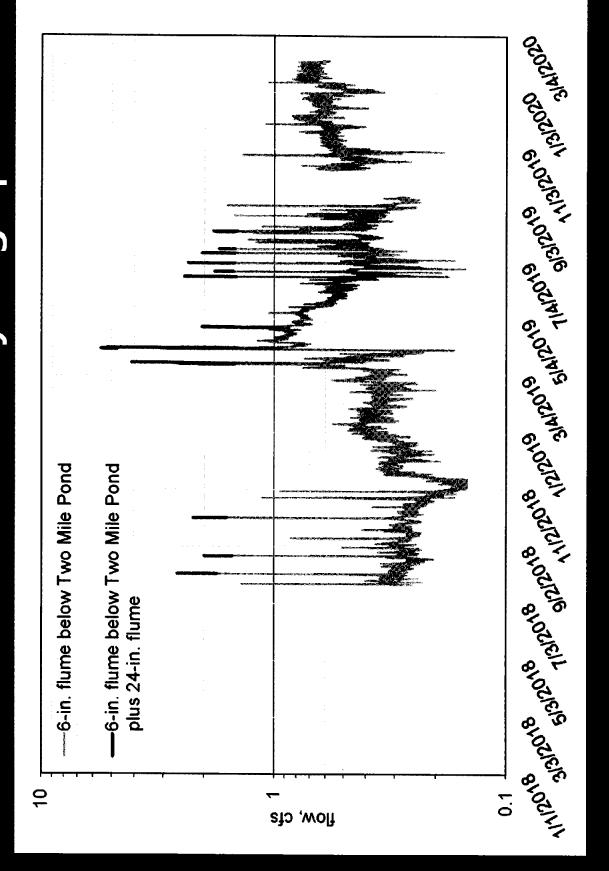
## **Audubon Well Hydrograph**



# Two-Mile Conceptual Cross Section

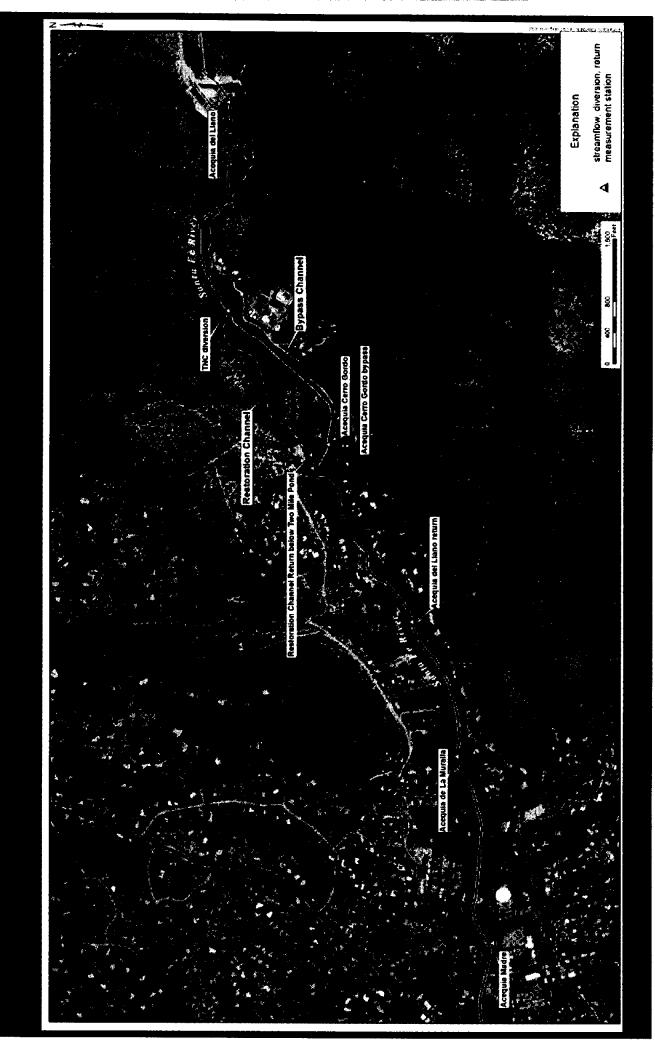


## Below Two Mile Hydrograph



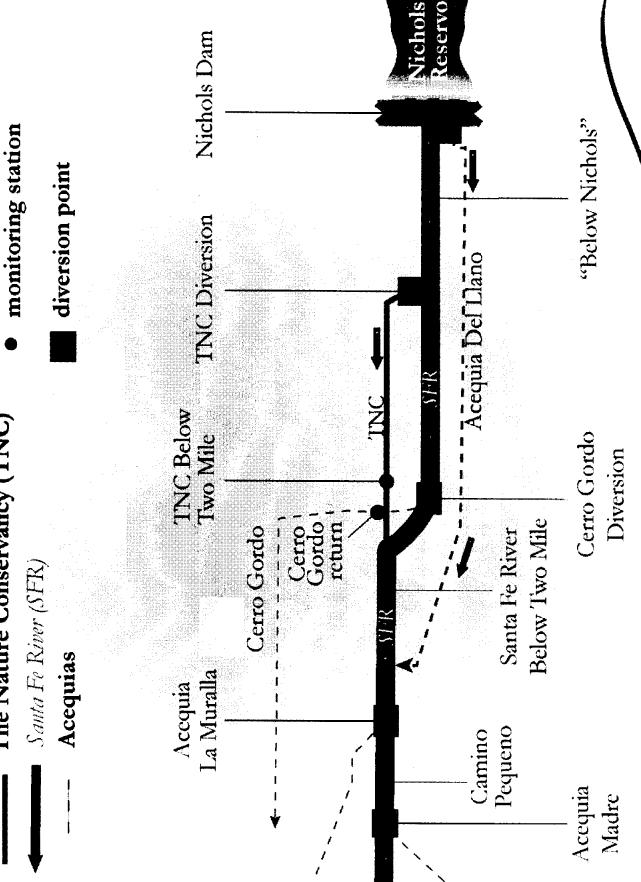
average flow = 0.5 cfs

# Two Mile and Acequia Monitoring Locations



## Diversions





## ersion Measurements



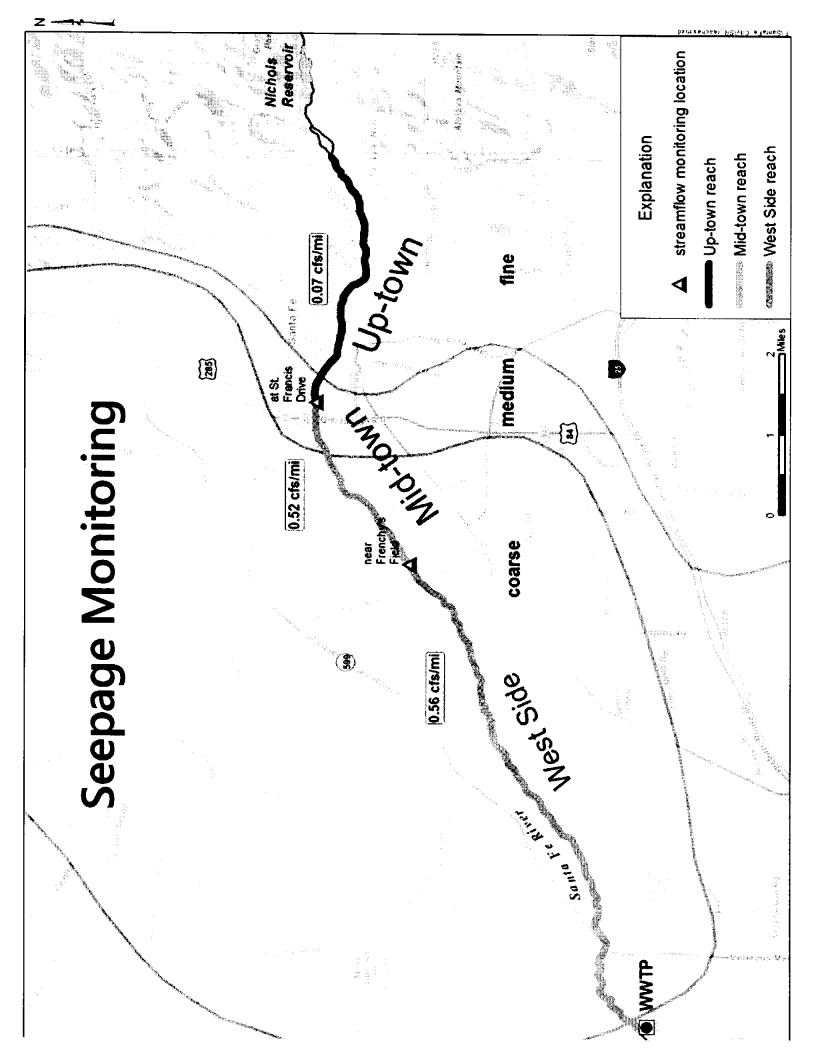




TNC Diversion staff gage

Acequia Madre

Acequia La Muralla

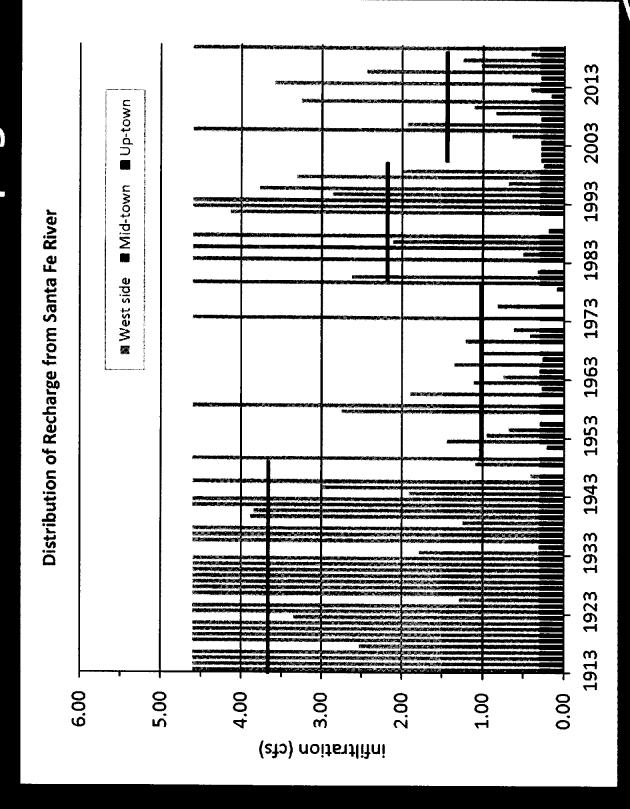


# SEEPAGE STUDIES SUMMARY

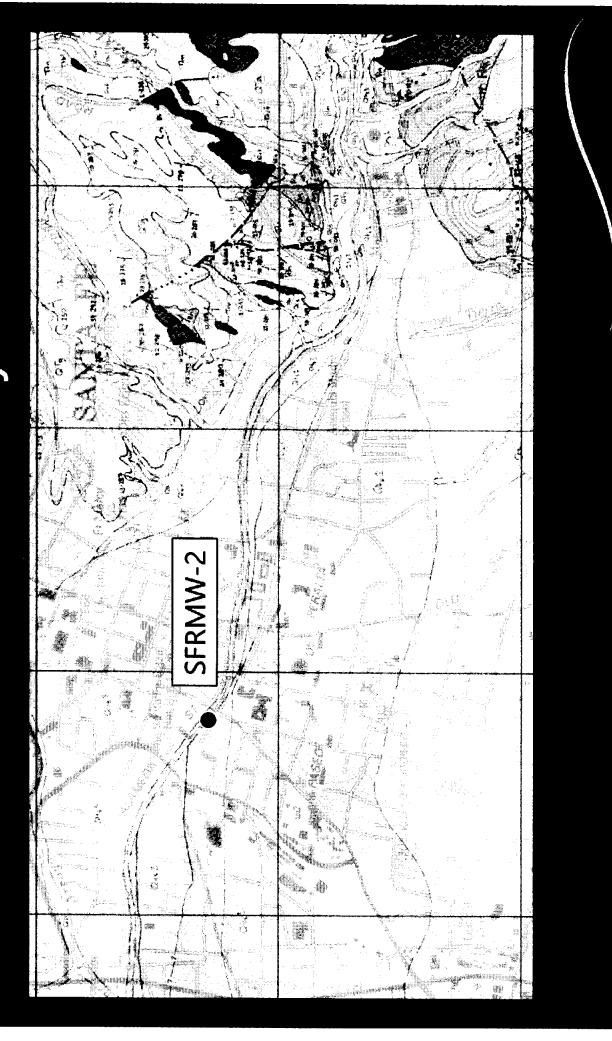
Reach	Length (mi)	Average	Seepage for reach
		rate (cfs)	(cfs)
Up-town	4.4	0.07	0.3
Mid-town	2.3	0.52	1.2
West-side	2.7	0.58	œ.

4.6 cfs infiltration capacity from Below Nichols to PRWRF

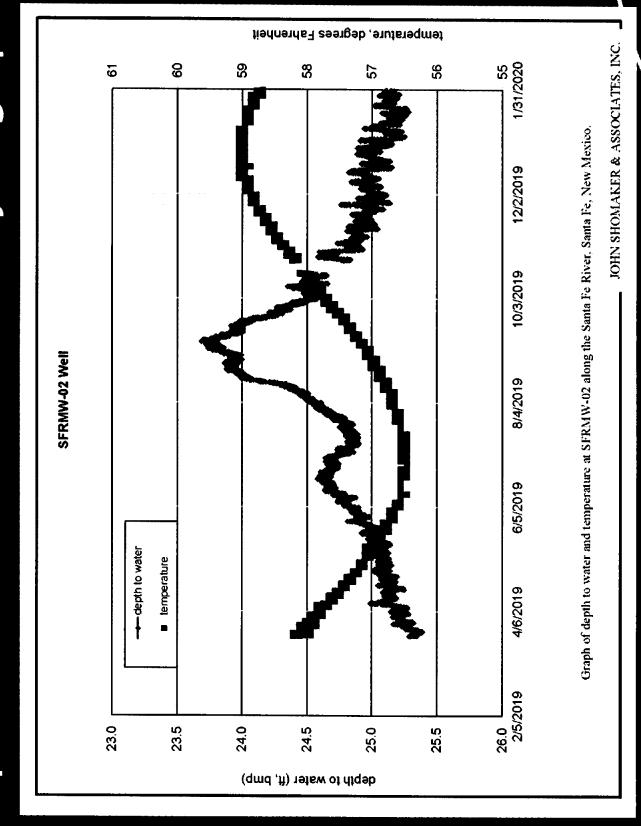
## **Estimated Historical Seepage**



# Geologic Map of Up-town Reach SFRMW-2 alluvial system



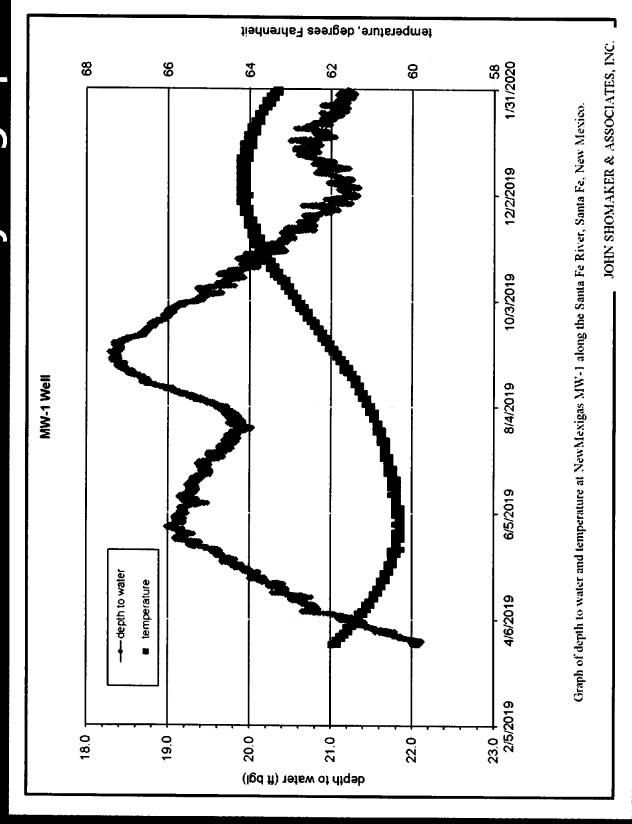
# Up-town Reach – SFRMW-2 hydrograph



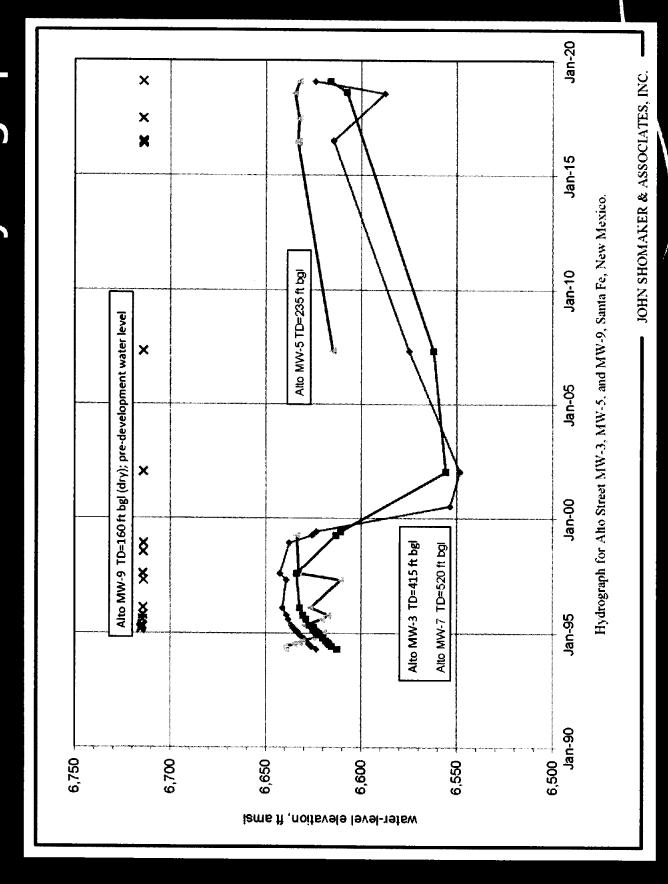
# Greundwater Menitering Lecations

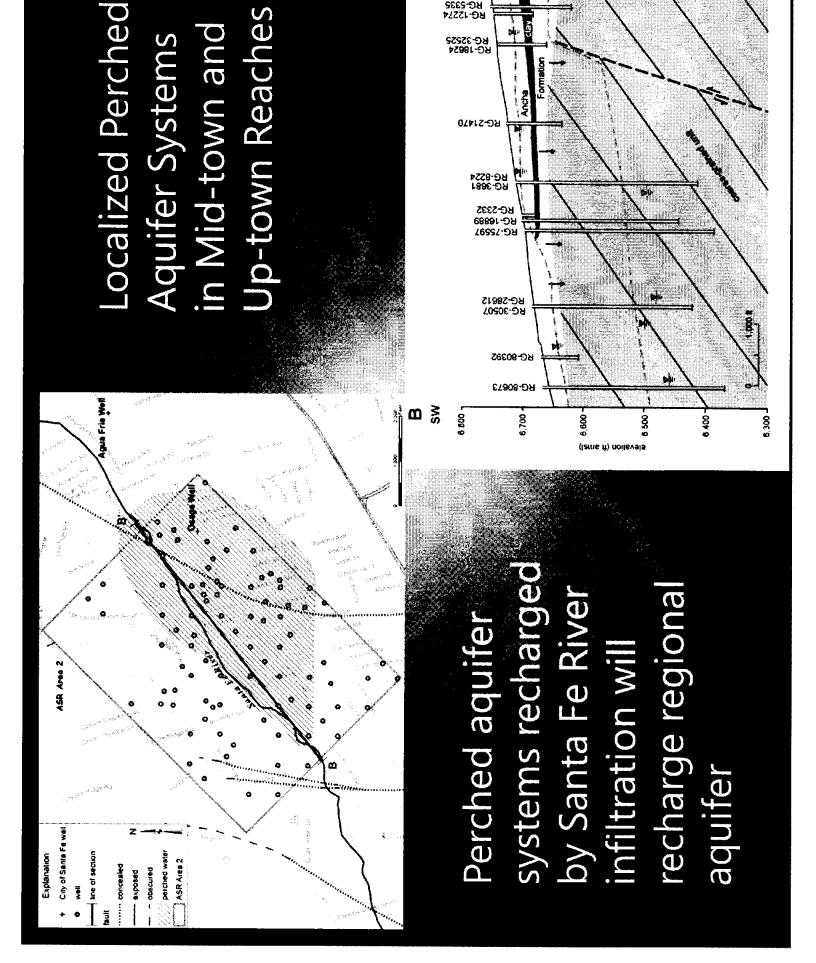


# Mid-town Reach – MW-1 hydrograph

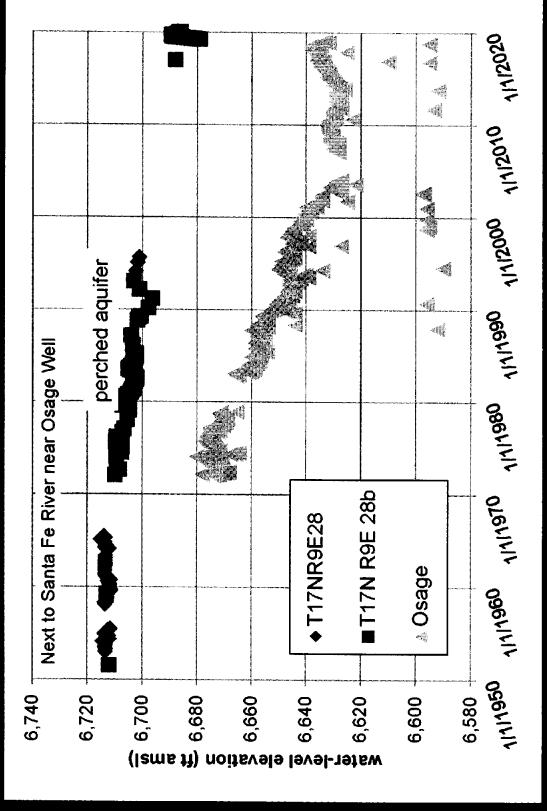


# Mid-town Reach - Alto MWs hydrograph

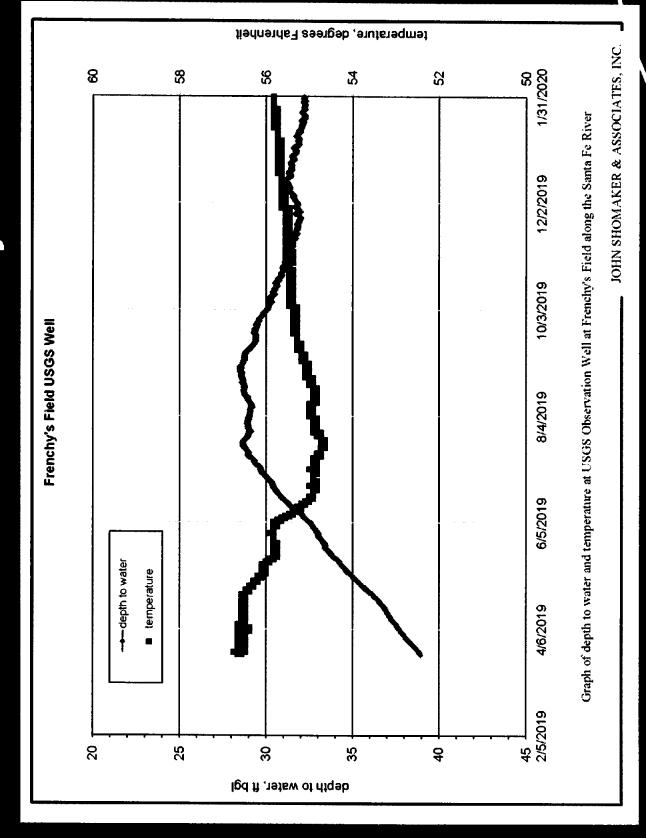




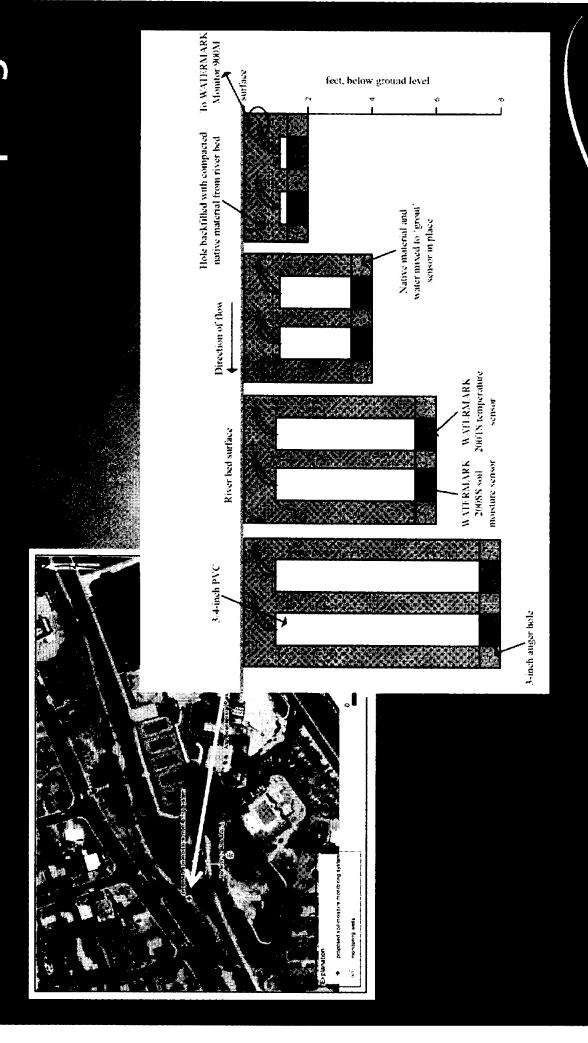
## **USGS Frenchy's and Osage Hydrograph** West-side Reach



## West-side Reach Frenchy's Field



## Channel at Alto Park will be added this spring Soil Moisture Monitoring in Santa Fe River



## Summary

- The Santa Fe River surface water and groundwater monitoring system helps track target flows from Living River Initiative
- ered stream flow above Restoration channel and Two-mile pond receive continuous flows from Old Stone Dam
- ows infiltrate and recharge the agust Most of the Living
- Some streamflow travels past PRWRF during spring pulse and above normal spring flows
- recharge from SFR flows are needed to sustain City City Well Field Optimization study concluded that Well Field groundwater supply

# THANK YOU, AND QUESTIONS

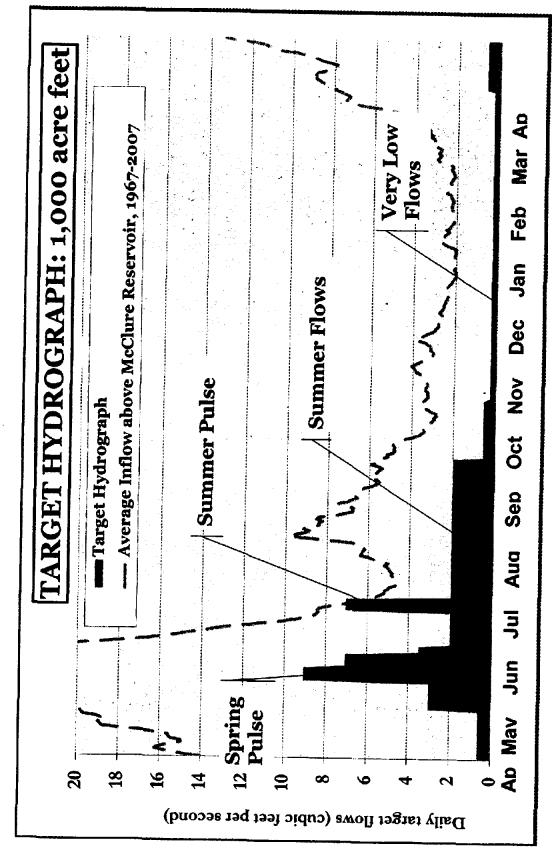


Alan G. Hook aghook@santafenm.gov Steven Finch Jr. sfinch@shomaker.com



SantaFe

EXHIBIT 4



## **EXHIBIT 5**

USDA NRCS National Water & Climate Center

- \* DATA CURRENT AS OF: March 04, 2020 11:28:57 PM
  - Based on March 01, 2020 forecast values

Northwestern Rio Grande in Colorado						
		50%	% of	max	30%	70%
min 30-yr Forecast Point		(445)		/*/*=>	/w.=\	(14 A = )
(KAF) avg	period	(KAF)	avg	(KAF)	(KAF)	(KAF)
(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						
Rio Grande at Thirty Mile Bridge (2) 50 113	APR-JUL	78	69	112	91	66
56 129	APR-SEP	90	70	132	106	75
Rio Grande at Wagon Wheel Gap (2) 143 340	APR-SEP	240	71	360	285	198
SF Rio Grande at South Fork (2) 51 127	APR-SEP	82	65	121	97	68
Rio Grande nr Del Norte (2) 200 515	APR-SEP	345	67	530	415	280
Saguache Ck nr Saguache (2) 15.9 32	APR-SEP	30	94	49	37	24
Alamosa Ck ab Terrace Reservoir 27 68	APR-SEP	45	66	67	53	37
La Jara Ck nr Capulin 2.3 8.9	MAR-JUL	5.1	57	9.0	6.6	3.8
Platoro Reservoir Inflow (2) 27 56	APR-JUL	40	71	55	46	34
31 62	APR-SEP	46	74	65	53	40
Conejos R nr Mogote (2) 81 194	APR-SEP	130	67	190	153	109
San Antonio R at Ortiz 3.1 15.6	APR-SEP	7.5	48	13.8	9.8	5.5
Los Pinos R nr Ortiz 23 73	APR-SEP	41	56	64	50	33
Rio Grande nr Lobatos Obs 14.6 200	APR-JUL	60	30	136	87	38
Northeastern Rio Grande in Colorado						
min 30-yr		50%	% of	max	30%	70%
Forecast Point	period	(KAF)	avg	(KAF)	(KAF)	(KAF)
(KAF) avg						

Ute Ck nr Fort Garland	APR-SEP	11.0	86	17.2	13.3	8.9
6.2 12.8 Sangre de Cristo Ck (2)	APR-SEP	12.0	74	21	15.4	9.0
5.4 16.3	ALIV-DEF	12.0	/ -	21	13,4	3.0
Trinchera Ck ab Turners Ranch 7.0 12.6	APR-SEP	10.0	79	13.5	11.3	8.7
Culebra Ck at San Luis (2) 9.0 23	APR-SEP	18.0	78	30	23	14.0
Costilla Reservoir Inflow (2) 5.1 11.1	MAR-JUL	9.0	81	14.0	10.9	7.3
Costilla Ck nr Costilla (2) 10.3 26	MAR-JUL	21	81	35	26	16.2
Middle Sangre Mtns in New Mexico						
min 30-yr		50%	% of	max	30%	70%
Forecast Point	period	(KAF)	avg	(KAF)	(KAF)	(KAF)
(KAF) avg						
Red R bl Fish Hatchery nr Questa 17.8 34	MAR-JUL	30	88	46	36	25
Rio Hondo nr Valdez 8.7 18.4	MAR-JUL	16.0	87	25	19.5	12.8
Rio Lucero nr Arroyo Seco 5.0 10.9	MAR-JUL	9.5	87	15.5	11.8	7.5
Rio Pueblo de Taos nr Taos 6.5 17.0	MAR-JUL	13.7	81	23	17.3	10.4
Rio Pueblo de Taos bl Los Cordovas 7.4 36	MAR-JUL	23	64	47	32	15.6
Embudo Ck at Dixon 13.7 48	MAR-JUL	36	75	70	48	26
Santa Cruz R at Cundiyo 9.3 18.3	MAR-JUL	15.5	85	23	18.5	12.8
Nambe Falls Reservoir Inflow (2) 3.4 6.5	MAR-JUL	5.6	86	8.4	6.7	4.6
Tesuque Ck ab diversions 0.63 1.34	MAR-JUL	1.33	99	2.3	1.69	1.02
Santa Fe R nr Santa Fe (2) 2.4 4.3	MAR-JUL	3.8	88	5.6	4.5	3.2
El Vado, Jemez		<b>6</b> 09/	% of		200	709
min 30-yr		20%	∕ <sub>0</sub> OT	max	30%	70%
Forecast Point (KAF) avg	period	(KAF)	avg	(KAF)	(KAF)	(KAF)

El Vado Reservoir Inflow (2) 74 225	MAR-JUL	144	64	235	178	113
65 205	APR-JUL	130	63	220	163	101
Jemez R nr Jemez 11.9 42	MAR-JUL	23	55	38	28	18.1
Jemez R bl Jemez Canyon Dam 7.4 34	MAR-JUL	17.0	50	31	22	12.6
Mainstem Routings						
min 30-yr		50%	% of	max	30%	70%
Forecast Point (KAF) avg	period	(KAF)	avg	(KAF)	(KAF)	(KAF)
Rio Grande at Otowi Bridge (2) 235 720	MAR-JUL	460	64	765	575	360
Rio Grande at San Marcial (2) -70 510	MAR-JUL	255	50	580	385	124
Pecos		50%	% of	max	30%	70%
min 30-yr Forecast Point	period	(KAF)	21/4	(KAF)	(KAF)	(VAE)
(KAF) avg	per 100	(KAF)	avg	(KAF)	(NAF)	(KAF)
Pecos R πr Pecos 29 57	MAR-JUL	52	91	80	62	42
Pecos R nr Anton Chico 20 63	MAR-JUL	52	83	100	70	37
Gallinas Ck nr Montezuma 3.0 9.8	MAR-JUL	8.8	90	17.7	12.0	6.1
Pecos R ab Santa Rosa Lk 16.7 56	MAR-JUL	45	80	88	61	32
Ruidoso and Mimbres		50%	% of	max	30%	70%
min 30-yr						
Forecast Point (KAF) avg	period	(KAF)	avg	(KAF)	(KAF)	(KAF)
Rio Ruidoso at Hollywood 0.80 6.7	MAR-JUN	2.2	33	5.8	3.5	1.23
Mimbres R at Mimbres (3)	MAR-MAY	1.48	99	3.8	2.2	0.92

## 0.38 1.50

Max (10%), 30%, 50%, 70% and Min (90%) chance that actual volume will exceed forecast.

Averages are for the 1981-2010 period.

All volumes are in thousands of acre-feet.

## footnotes:

- 1) Max and Min are 5% and 95% chance that actual volume will exceed forecast
- 2) streamflow is adjusted for upstream storage
- 3) median value used in place of average