



SUSANA MARTINEZ
Governor

JOHN A. SANCHEZ
Lieutenant Governor

NEW MEXICO
ENVIRONMENT DEPARTMENT

Surface Water Quality Bureau

Harold Runnels Building, N2050
1190 South St. Francis Drive (87505)
P.O. Box 5469, Santa Fe, NM 87502-5469
Phone (505) 827-0187 Fax (505) 827-0160
www.nmenv.state.nm.us



RYAN FLYNN
Cabinet Secretary-Designate

BUTCH TONGATE
Deputy Secretary

ERIKA SCHWENDER
Director
Resource Protection Division

Certified Mail - Return Receipt Requested

January 16, 2014

Ms. Katherine Miller
Santa Fe County Manager
102 Grant Ave.
Santa Fe, New Mexico 87504

RE: Santa Fe Quill Wastewater Treatment Facility; Minor; Unpermitted Discharge; SIC 4952; NPDES Compliance Evaluation Inspection; NPDES # NMU001871; January 13, 2014

Dear Ms. Miller:

Enclosed please find a copy of the report and check list for the referenced inspection that the New Mexico Environment Department (NMED) conducted at your facility on behalf of the U.S. Environmental Protection Agency (USEPA). This inspection report will be sent to the USEPA in Dallas for their review. These inspections are used by USEPA to determine compliance with the National Pollutant Discharge Elimination System (NPDES) permitting program in accordance with requirements of the Federal Clean Water Act.

Introduction, treatment scheme, and problems noted during this inspection are discussed in the Further Explanations section of the inspection report.

You are encouraged to review the inspection report, required to correct any problems noted during the inspection, and to modify your operational and/or administrative procedures, as appropriate. If you have comments on or concerns with the basis for the finding in the NMED inspection report, please contact us (see the address below) in writing within 30 days from the date of this letter. Further, you are encouraged to notify in writing both the USEPA and NMED regarding modifications and compliance schedules at the addresses below:

Santa Fe Quill Wastewater Treatment Facility
January 16, 2014
Page 2

Racquel Douglas
US Environmental Protection Agency, Region VI
Enforcement Branch (6EN)
1445 Ross Avenue, Suite 120
Dallas, Texas 75202-2733

Bruce Yurdin
New Mexico Environment Department
Surface Water Quality Bureau
Point Source Regulation Section
P.O. Box 5469
Santa Fe, New Mexico 87502

If you have any questions about this inspection report, please contact Daniel Valenta at (505) 827-2575 or daniel.valenta@state.nm.us.

Sincerely,

/s/Bruce Yurdin

Bruce J. Yurdin
Program Manager
Point Source Regulation Section
Surface Water Quality Bureau

Cc: Rashida Bowlin, USEPA (6EN-AS) by e-mail
Carol Peters, USEPA (6EN-WM) by e-mail
Brent Larsen, USEPA (6WQ) by e-mail
Racquel Douglas, USEPA (6EN-WM) by e-mail
Gladys Gooden-Jackson, USEPA (6EN-WC) by e-mail
NMED District I, William Chavez by e-mail
Jerry Schoeppner, NMED GWQB by e-mail



Form Approved
OMB No. 2040-0003
Approval Expires 7-31-85

NPDES Compliance Inspection Report

Section A: National Data System Coding

Transaction Code			NPDES										yr/mo/day			Inspec. Type		Inspector		Fac Type								
1	N	2	5	3	N	M	U	0	0	1	8	7	1	11	12	1	4	0	1	1	3	17	18	C	19	S	20	2
Remarks																												
W A S T E W A T E R L A G O O N																												
Inspection Work Days						Facility Evaluation Rating						BI		QA		-----Reserved-----												
67						70						71		72		73 74 75 80												

Section B: Facility Data

Name and Location of Facility Inspected (For industrial users discharging to POTW, also include POTW name and NPDES permit number)		Entry Time /Date		Permit Effective Date	
Santa Fe Quill Wastewater Treatment Facility, 4311 Hwy 14, Santa Fe, NM 87504		1000/ 1-13-2014		No Permit	
Santa Fe County		Exit Time/Date		Permit Expiration Date	
		1315/1-13-2014		No Permit	
Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)				Other Facility Data	
Robert J. George/Utilities Infrastructure Manager/ Santa Fe County Division, P.O. Box 276 Santa Fe, NM /505-992-3046/505-490-0038/ fax 505-992-3028				LAT 35° 34' 24.16" N	
				LONG 106° 03' 39.95" W	
Name, Address of Responsible Official/Title/Phone and Fax Number				SIC 4952	
Ms. Katherine Miller, 102 Grant Ave., Santa Fe, New Mexico 87504/ Santa Fe County Manager/505-986-6200, fax 505-995-2740				Contacted Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

Section C: Areas Evaluated During Inspection

(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)

U	Permit	N	Flow Measurement	N	Operations & Maintenance	N	CSO/SSO
N	Records/Reports	N	Self-Monitoring Program	N	Sludge Handling/Disposal	N	Pollution Prevention
U	Facility Site Review	N	Compliance Schedules	N	Pretreatment	N	Multimedia
N	Effluent/Receiving Waters	N	Laboratory	N	Storm Water	N	Other:

Section D: Summary of Findings/Comments (Attach additional sheets if necessary)

1. Facility does not have permit coverage to discharge to surface waters.

Name(s) and Signature(s) of Inspector(s)		Agency/Office/Telephone/Fax		Date	
DANIEL VALENTA /s/Daniel Valenta		NMED/SWQB 505-827-2575		1/16/2014	
Signature of Management QA Reviewer		Agency/Office/Phone and Fax Numbers		Date	
SARA HOLCOMB /s/Sara Holcomb		NMED/SWQB 505-827-0418		1/16/2014	

Compliance Evaluation Inspection
Santa Fe Quill Wastewater Treatment Facility
NPDES Permit No. NMU001871
January 13, 2014

Introduction

On January 13, 2014 a Compliance Evaluation Inspection was conducted at the Santa Fe Quill Wastewater Treatment Facility (Standard Industrial Classification 4952) located at 4311 Hwy 14, Santa Fe, New Mexico by Daniel Valenta accompanied Missy Halick of the Ground Water Bureau, NMED. The purpose of this inspection was to document the facility's status regarding the discharge of influent or effluent wastewater under regulation **40 Code of Federal Regulations Part 122**. Findings of the inspection are detailed on the attached EPA form 3560-3 and in the narrative finding section of the report.

The Santa Fe Quill Wastewater Treatment Facility has an active Ground Water Discharge permit, DP 234. Per this permit the facility proposes to discharge up to 280,000 gallons per day (gpd) of domestic wastewater. The facility is connected to the New Mexico Penitentiary Complex, the New Mexico National Guard Complex, the Santa Fe County Detention Center, the Valle Vista Subdivision, the Santa Fe County Business Park Development and the New Mexico Film Studio. Wastewater is treated in two synthetically lined aerated impoundments followed by two synthetically lined stabilization impoundments. It is disinfected and then stored in a clay lined impoundment and discharged to a 95 acre land application area for irrigation.

The unpermitted surface discharge from the facility is to an ephemeral reach of Cienega Creek, thence to the Santa Fe River in Segment 20.6.4.113. Designated uses are: domestic water supply, fish culture, high quality coldwater aquatic life, irrigation, livestock watering, wildlife habitat, marginal coldwater life, secondary contact; and warmwater aquatic life.

This report is based on on-site observation by NMED personnel and verbal information provided by the facility's representative. The inspector traveled to the site with Mr. Robert George, Utilities Infrastructure Manager, Santa Fe County. Credentials were presented during the inspection, arriving at the site at approximately 1015 hours. A brief exit interview to discuss the findings of this inspection was conducted at the office of Mr. George at approximately 1310 hours.

Federal Clean Water Act and NPDES Requirements

Section 301 of the Federal Clean Water Act states: *“Except as in compliance with this section and sections 302, 306, 307, 318, 402 and 404 of this Act, the discharge of any pollutant by any person shall be unlawful.”*

40 CFR Part 122.1 (b) Scope of the NPDES permit requirement states (1) states, *“The NPDES program requires permits for the discharge of ‘pollutants’ from any ‘point source’ into ‘waters of the United States.’ The terms ‘pollutant’, ‘point source’ and ‘waters of the United States’ are defined at § 122.2.”*

Compliance Evaluation Inspection
Santa Fe Quill Wastewater Treatment Facility
NPDES Permit No. NMU001871
January 13, 2014

Per 40 CFR Part 122.21(a) Duty to apply states (1) states, “*Any person who discharges or proposes to discharge pollutants...must submit a complete application to the Director in accordance with this section and part 124.*”

Findings

This facility does not have NPDES permit coverage for the discharge of effluent from the treatment facility to surface waters.

Wastewater is collected from various sources to be treated at the Santa Fe Quill facility. After treatment the water is pumped to the facilities effluent storage pond. The water is disposed of by spraying onto the adjacent fields (see overview 1-2). Groundwater permit DP234 is in place to monitor this activity. During the winter months the fields are frozen with no growing vegetation. To keep the facilities effluent storage pond from overflowing spraying continues. When conditions allow the effluent freezes and slowly accumulate. As the weather changes sudden melting of the frozen effluent may occur. This overwhelms the inoperative collection system at the bottom of the hill. Per the facility representative the discharge observed during the inspection was estimated to be approximately 50,000 gallons. The effluent runoff was found to extend down the arroyo approximately 0.5 miles from the point of origin.

The pump at the lift station to prevent this discharge was reported to be nonfunctional for the last two years. It is unknown at this time how many unpermitted discharges have occurred before this inspection when rain events or those described above have occurred. The Santa Fe County Utilities Division has submitted a report addressing the unauthorized discharge of effluent runoff to the EPA and State, see attached.

NMED/SWQB

Site Overview

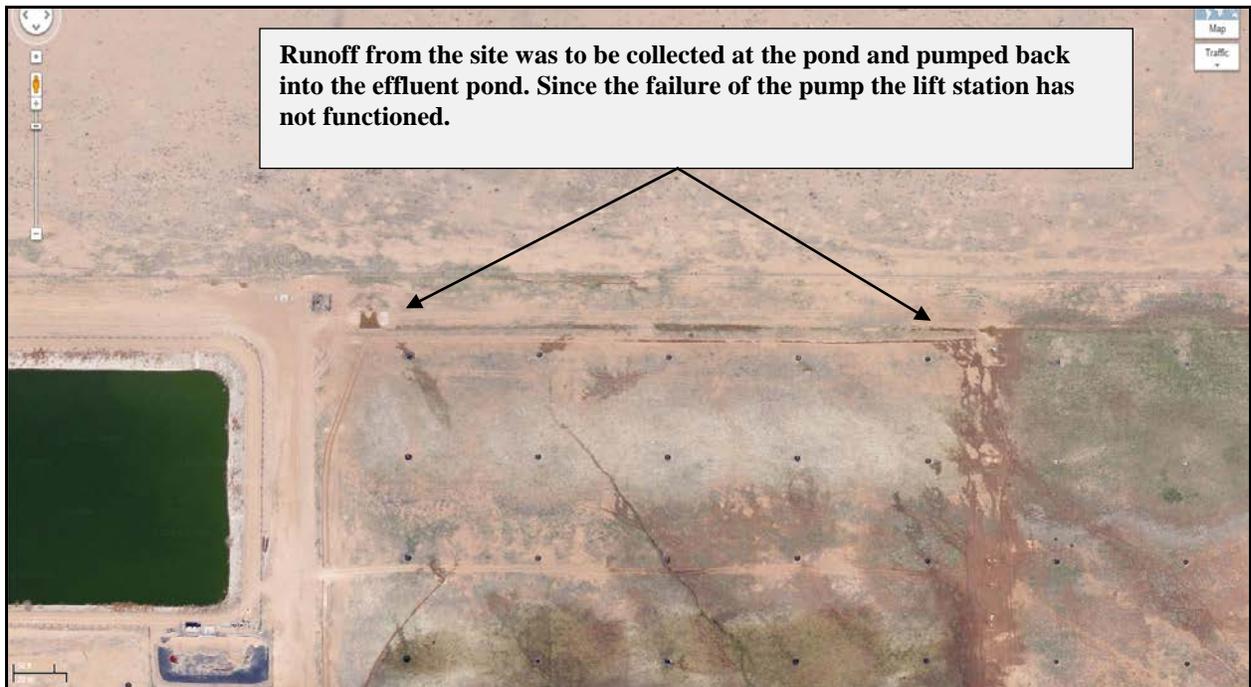
City/County: South of Santa Fe/Santa Fe County	
Location: 43110 Hwy 14, Santa Fe, NM	
Subject: Overview of the facility. Photo taken during the summer not at the time of the inspection.	



NMED/SWQB

Site Overview

City/County: South of Santa Fe/Santa Fe County	
Location: 43110 Hwy 14, Santa Fe, NM	
Subject: The system was designed to collect the effluent and return it to the effluent storage lagoon.	



**NMED/SWQB
Official Photograph Log**

Photo # 1

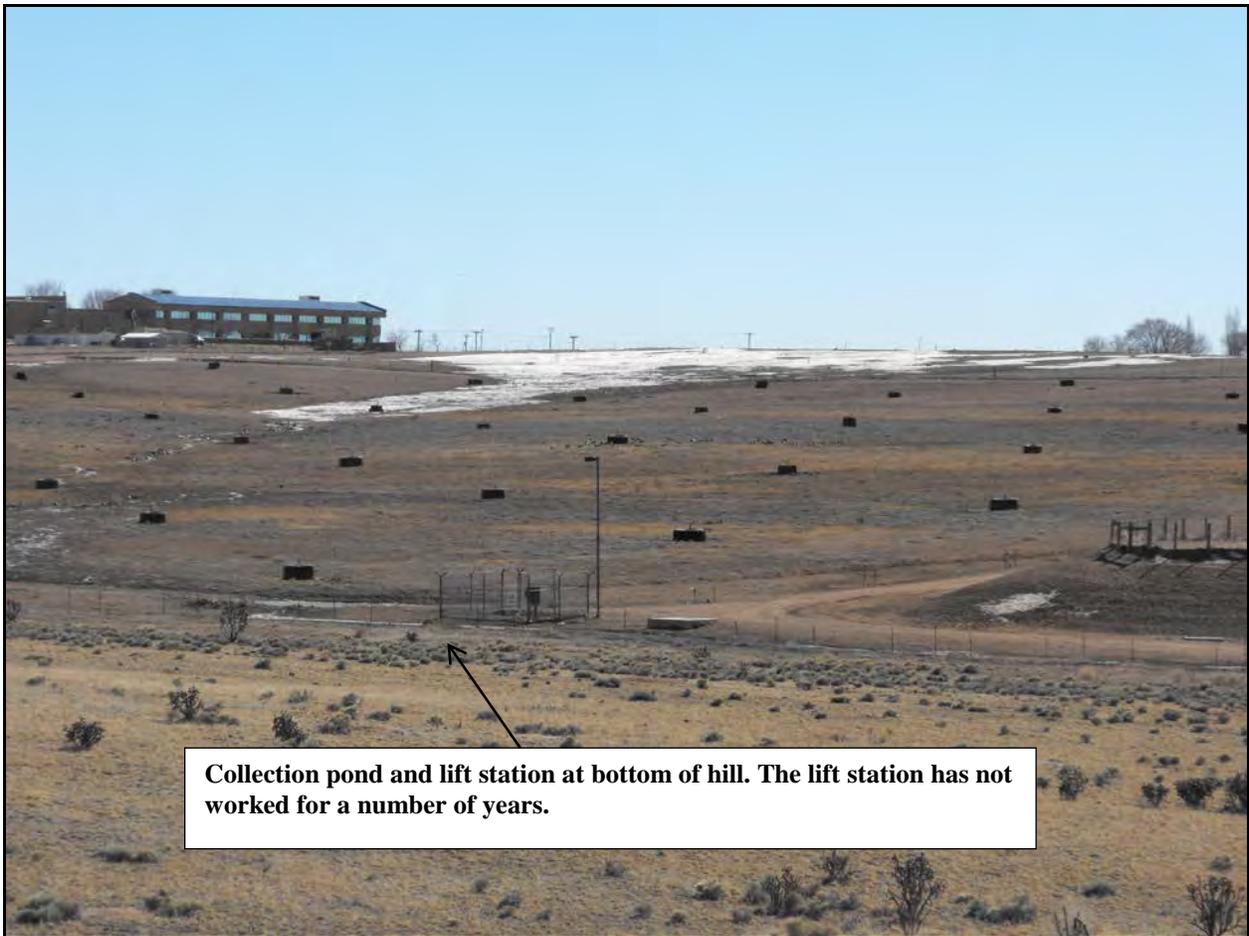
Photographer: Daniel Valenta	Date: 1/13/2014	Time: 1144
City/County: South of Santa Fe/Santa Fe County		
Location: 43110 Hwy 14, Santa Fe, NM, facing northwest.		
Subject: Effluent is sprayed onto the field where it freezes and accumulates.		



**NMED/SWQB
Official Photograph Log**

Photo # 2

Photographer: Daniel Valenta	Date: 1/13/2014	Time: 1200
City/County: South of Santa Fe/Santa Fe County		
Location: 43110 Hwy 14, Santa Fe, NM, facing southeast.		
Subject: Effluent runs off field to the overflow collection pond and flows down the arroyo.		



**NMED/SWQB
Official Photograph Log**

Photo # 3

Photographer: Daniel Valenta	Date: 1/13/2014	Time: 1123
City/County: South of Santa Fe/Santa Fe County		
Location: 43110 Hwy 14, Santa Fe, NM, facing west.		
Subject: Effluent discharge from collection system.		



**NMED/SWQB
Official Photograph Log**

Photo # 5

Photographer: Daniel Valenta	Date: 1/13/2014	Time: 1054
City/County: South of Santa Fe/Santa Fe County		
Location: 43110 Hwy 14, Santa Fe, NM, facing west.		
Subject: Effluent flows down the arroyo towards a residential area and Cienega Creek.		



Daniel "Danny" Mayfield
Commissioner, District 1

Miguel Chavez
Commissioner, District 2

Robert A. Anaya
Commissioner, District 3



Kathy Holian
Commissioner, District 4

Liz Stefanics
Commissioner, District 5

Katherine Miller
County Manager

SANTA FE COUNTY UTILITIES DIVISION

January 14, 2014

Jan Walker
EPA Region 6
Main Office
1445 Ross Ave.
Suite 1200
Dallas, Texas 75202

Melissa Halick
NMED-GWQB
P.O. Box 5469
Santa Fe, NM
87502-5469

Daniel Valenta
NMED-SWQB
P.O. Box 5469
Santa Fe, NM
87502-5469

**RE: SANTA FE COUNTY UTILITIES DIVISION -
UNAUTHORIZED DISCHARGE OF DOMESTIC WASTEWATER,
VALLE VISTA LIFTSTATION FORCEMAIN;
UNAUTHORIZED DISCHARGE OF EFFLUENT RUNOFF,
QUILL WWTF**

Dear Ms. Walker, Ms. Halick and Mr. Valenta:

On January 7, 2014 at approximately 10:30 AM, a Santa Fe County Utilities (SFCU) Division operator observed a large area of frozen water on a hillside north of the Santa Fe County Quill Wastewater Treatment Facility (WWTF). Investigation revealed the frozen water to be sewage originating from a sewage forcemain that serves to convey wastewater from the County's Valle Vista liftstation to the Quill WWTF. Frozen and liquid sewage was found on the hillside and extending down an un-named arroyo for approximately 0.25 miles. The site of the unauthorized discharge originates to the west of New Mexico Highway 14, at Latitude 35°, 34', 31.09" N, Longitude 106°, 03', 37.34" W, T15N/R8E/S35, Santa Fe County.

At approximately 11:00 AM on the morning of January 7, 2014, SFCU's Infrastructure Manager, Robert George, contacted Melissa Halick of the New Mexico Environment Department (NMED) Ground Water Quality Bureau and Bruce Yurdin of the NMED Surface Water Quality Bureau by phone to report the spill and provide basic information. SFCU's operations crew responded to the leak immediately after it was detected and began investigating the source. Excavation of the leak revealed that it was the result of a failed 1" copper line that leads from the 6" PVC forcemain to an air relief valve (ARV). The 1" copper line was found to have a split approximately 6" long, parallel to the line. Such a split is consistent with freeze damage, but the actual cause of the damage is not

known for certain. While the excavation was underway, SFCU shut down the Valle Vista liftstation to allow sewage to be evacuated from the leak excavation with a vacuum (Vactor) trailer. Once the nature of the leak was understood, the 1" copper line was temporarily crimped to stop the leak and allow SFCU to return the Valle Vista liftstation to functionality. The crimped repair was intended only as a temporary measure that would allow the liftstation to be return to service (to avoid other unauthorized discharges), and a permanent repair would be effected in the near future. Coarse debris was collected from the spill site and properly disposed of with the Quill WWTF daily barscreen debris and the area immediately around the spill was disinfected with approximately 5 lbs. of calcium hypochlorite (HTH). Mr. George followed up with Ms. Halick and Mr. Yurdin later on January 7, 2014 with an email that contained pictures of the spill area and the cause of the leak.

The duration of the unauthorized sewage discharge cannot be determined precisely, but based upon the area affected and the state of debris observed around spill location, it likely lasted less than 14 days. The Valle Vista liftstation, which feeds the forcemain associated with the spill, pumps approximately 45,000 gallons per day (gpd). SFCU has plotted the flow records for the Quill WWTF influent flow meter for the months of October – December 2013 and the available influent flow records for January 2014 (copies attached). Unfortunately, the variability of the influent flow rate at the Quill WWTF prevents a discernible trend in the flow pattern from being determined. Based upon the diameter of the breach in the 1" copper line, the operating pressure and pump run time pattern, the discharge can be estimated to be 15,000 – 20,000 gpd. If the duration was 14 days, the total volume discharged can be estimated at a low of 210,000 gallons and a high of 280,000 gallons.

On January 13, 2014, the site of the spill was inspected by Ms. Halick and Mr. Daniel Valenta of the NMED Surface Water Quality Bureau. Upon investigation of the leak site, sewage was found to be emanating from the leak once again. Immediate excavation by SFCU's staff revealed that the crimp repair applied to the 1" copper line had failed and was thus allowing a limited discharge of sewage. The ongoing discharge was permanently stopped by excavating down to the 6" forcemain and shutting the valve on the line to the 1" copper feed to the ARV. Barring unforeseen damage to the line, this should prevent any further unauthorized discharges at this site. When the spill site has dried to allow foot traffic, any remaining coarse debris will be collected and properly disposed of with the Quill WWTF daily barscreen debris. In the near future, SFCU will re-plumb the 1" copper line with suitable materials to return the ARV to functionality.

During the investigation of the unauthorized sewage discharge, an unauthorized liquid discharge, separate from the sewage spill, was observed to be originating from the SFCU Quill WWTF irrigation field. This discharge consisted of effluent running off the WWTF irrigation field. SFCU currently discharges to the irrigation field during the winter months to prevent overtopping of the facility's effluent storage pond. This unauthorized discharge originates at the small tailwater pond as overflow and was observed to extend

January 14, 2014

Page 3

down the same un-named arroyo that was previously impacted by the unauthorized sewage discharge. The effluent runoff was found to extend down the arroyo approximately 0.5 miles from its point of origin. Assuming a wetted area of approximately 80,000 square feet and an applied depth of 1" of effluent runoff over the entire wetted area, the volume of the unauthorized discharge of effluent runoff can be estimated to be approximately 50,000 gallons.

Effluent discharged onto the field during winter months freezes and then melts and is absorbed by the soil. A small tailwater pond equipped with an automated pump system is intended to capture any effluent that is not absorbed by the soil and transfer it back to the effluent storage pond. Unfortunately, the tailwater pump and controls are non-functional, so effluent that runs off of the irrigation field is collecting in the small tailwater pond, overflowing the pond and running off the site. SFCU is in the process of repairing the tailwater pump equipment, but is proposing to implement the following corrective actions to address the current runoff problem:

1. The berm of the small tailwater pond will be improved to prevent runoff to a greater extent.
2. Effluent that collects in the tailwater pump wetwell will be transferred back to the effluent storage pond by pump or using the SFCU's Vector trailer unit.
3. Irrigation of the field will be kept to a minimum during the winter months to prevent excessive runoff as the effluent melts. This will involve the application of only enough effluent to the field to maintain the required freeboard in the effluent storage pond.

The improvements to the tailwater pond berm have already been made and SFCU is currently and will continue to remove the accumulated water in the tailwater pump wetwell and return it to the effluent storage pond. These actions have stopped the unauthorized discharge of effluent runoff from the tailwater pond.

If you have any questions regarding these unauthorized discharges, please feel free to contact me at (505) 992-9872 or contact SFCU's Infrastructure Manager (Robert George) at (505) 992-3046 or on his cell phone at (505) 490-0038.

Sincerely,



Claudia Borchert, Director
Santa Fe County Utilities Division

CB:RG/rjg

Encls: Graph of Quill WWTF Influent Flow, Oct, Nov, Dec 2013, Jan 2014 (to date)

CC: Bruce Yurdin, Point Source Program Manger, NMED-SWQB (via email)
SFCU Spill Report file

The effluent runoff was found to extend approximately 0.2 miles from its point of origin. Assuming a wetted area of approximately 30,000 square feet and an applied depth of 1" of effluent runoff over the entire wetted area, the volume of the unauthorized discharge of effluent runoff can be estimated to be approximately 30,000 gallons.

Effluent discharged onto the field during winter months freezes and then melts and is absorbed by the soil. A small tailwater pond equipped with an automated pump system is intended to capture any effluent that is not absorbed by the soil and transfer it back to the effluent storage pond. Unfortunately, the tailwater pump and controls are non-functional, so effluent that runs off of the irrigation field is collecting in the small tailwater pond. SFCU is in the process of repairing the tailwater pump equipment, but is preparing to implement the following corrective actions to address the current runoff problem:

1. The berm of the small tailwater pond will be repaired to prevent runoff to a greater extent.
2. Effluent that collects in the tailwater pump well will be transferred back to the effluent storage pond by pump or using the SFCU's Vector tractor unit.
3. Irrigation of the field will be kept to a minimum during the winter months to prevent excessive runoff as the effluent recedes. This will help to prevent only enough effluent in the field to maintain the required feedback in the effluent storage pond.

The improvements to the tailwater pond berm have already been made and SFCU is currently and will continue to remove the accumulated water in the tailwater pump well and return it to the effluent storage pond. These actions have stopped the unauthorized discharge of effluent runoff from the tailwater pond.

If you have any questions regarding these unauthorized discharges, please feel free to contact me at (505) 992-9872 or e-mail: WPT@SFCU.org (Robert George) at (505) 992-9876 or on his cell phone at (505) 493-0038.

Sincerely,

Claudia Borcher, Director
Santa Fe County Effluent Division

Back: Graph of 2011 WWT Influent Flow, Oct-Nov-Dec 2013, Jan 2014 (in data)