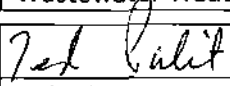
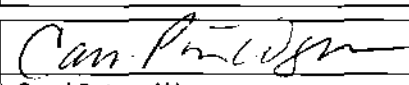


**Region 6 Compliance Assurance and Enforcement Division
INSPECTION REPORT**

Inspection Date(s):	07/11/2018		
Media:	Water (CWA)		
Regulatory Program(s)	NPDES		
Company Name:	San Antonio Water System		
Facility Name:	Mitchell Lake site		
Facility Physical Location:	Approximately one mile south of Loop 410 and East of Pleasanton Road		
(city, state, zip code)	San Antonio, Texas		
Mailing address:	3495 Valley Road		
(city, state, zip code)	San Antonio, Texas 78221		
County/Parish:	Bexar County		
Facility Contact:	Daniel Rodriguez	Facility Manager	
	210 233 3922 (O); 210 233 5216 (F)		
FRS Number:	110006823376		
Identification/Permit Number:	TX0065641		
Media Number:			
NAICS:			
SIC:	4952- Sewerage Systems		
Facility Representatives:	Mr. Parviz	Chavol	Senior Director
EPA Inspectors:	Ted	Palit	214 665 8061
State Inspector(s):			
Other Inspector(s):			
Metadata	Title:	Mitchell Lake site, 10750 Pleasanton Road, San Antonio, TX 78221	
	Author:	US EPA Region 6 Compliance Assurance and Enforcement Division Dallas TX	
	Subject:	Inspection Report , Clean Water Act (CWA), National Pollutant Discharge Elimination System(NPDES)	
	Keywords:	Wastewater Treatment site, Publicly Owned Treatment Works (POTW)	
EPA Lead Inspector			10/11/2016
Signature/Date	Ted Palit		Date
Supervisor			10/15/18
Signature/Date	Carol Peters-Wagnon		Date

Section I - INTRODUCTION

PURPOSE OF THE INSPECTION

On July 11, 2018, I, Ted Palit arrived at the Mitchell Lake site which is permitted for effluent discharges under an NPDES Permit No. TX0065641. The facility is located at 10750 Pleasanton Road, San Antonio, Texas 78221, at approximately one mile south of Loop 410 and east of Pleasanton Road, south of the City of San Antonio. I met with Mr. Jeff Haby of San Antonio River System (SAWS) at about 9 AM. Upon arrival I presented my credentials and explained the purpose and the extent of my inspection activities.

I explained to the (SAWS) personnel that the purpose of my inspection is to evaluate the compliance issues of the permit and other compliance issues relative to the Consent Decree entered in the United States District Court, Western District of Texas, San Antonio Division on October 15, 2013. I also toured the entire Lake area, Basins, and Polders of the Lake system which is also a visitor's attraction and is maintained by the National Audubon Society. This inspection report is based on the information obtained from the SAWS representative (the permittee), observation made by the U.S. EPA inspector, and records and reports maintained by the permittee, state of Texas, and U.S. EPA.

FACILITY DESCRIPTION

Historically, Mitchell Lake is a naturally occurring water body. According to the information received from SAWS:

In 1901, the City of San Antonio contracted with the City of San Antonio Irrigation Company to use Mitchell Lake as a water supply reservoir for irrigation. At about the same time, Mitchell Lake Dam was constructed and the lake was expanded. Subsequently, Mitchell Lake was used for approximately 80 years as a component of the City's storm water and sewage collection facilities. From about 1963, discharges from Mitchell Lake are permitted by the State of Texas (TWQB, TWC, and TNRCC). During the time, in addition to wastewater, the Lake was also receiving waste activated sludge. In 1977, EPA issued an NPDES permit to the facility. During the early to mid-seventies, City constructed dikes to segregate the wastewater and waste activated sludge areas (West and East Polders) in the northern part of the Lake. See Appendix 1 for a layout of the Lake complex. During the recent permitting process, SAWS is dispersing treated effluent from its WWTPs to various water bodies around the City and is currently discharging effluent from its Leon Creek WWTP (NPDES Permit No. TX0052639) through its outfall no. 002 to the Mitchell Lake. For more detail background information and facility description see Appendix 2.

Section II – OBSERVATIONS

I inspected the entire Mitchell Lake complex, each of its Basins and Polders. Very high algal bloom and other suspended solids were noticeable in each part of the Lake water. Currently, to meet the requirements of the TPDES/NPDES permit, effluent sample is collected from the discharge point of the constructed dam which is the lowest point in Basin 4. The lake area is well protected from public access and the site is managed by the National Audubon Society. National Audubon Society operates this Lake facility as a center for bird watching and aviary education.

Section III – AREAS OF CONCERN

It is apparent that the Mitchell Lake site was not used to disposal of wastewater or sludge for a considerable period of time. As such, as recent as, before discharge of effluent from the Leon Creek plant, SAWS could attempt termination of its Mitchell Lake permit from the regulatory agency and try to designate it as waters of the U.S./State. Discharges of effluent from the Leon Creek WWTP made the case for such an attempt very complex in nature. With an average rain fall of over 30 inches and an average lake evaporation rate of about 50 inches, it will be very difficult for SAWS to control discharges form the lake, on a yearly basis, especially during the heavy rainfall episodes. Under the circumstances, unless something changes, SAWS must plan on cleaning the Lake complex or provide treatment to meet the effluent limitations of the permit.

On August 12, 2016, EPA Region 6, issued an Administrative Order (AO) Docket number CWA-06-2016-1770 requiring SAWS to submit a list of corrective actions to address the recent violations due to TSS, E. Coli, pH, Dissolved Oxygen, and BOD. The AO also required SAWS to submit a plan listing a detailed schedule for elimination of the violations with in the shortest time.

Since issuance of the AO, SAWS is in regular communication with EPA in developing alternatives to address the complicated situation while maintaining a wildlife refuge managed by the National Audobon Society. On February 6, 2018, SAWS submitted its latest proposal to construct wetland downstream from the current outfall location at the dam. SAWS proposal is attached in Appendix 3.

Section IV – FOLLOW UP

N/A

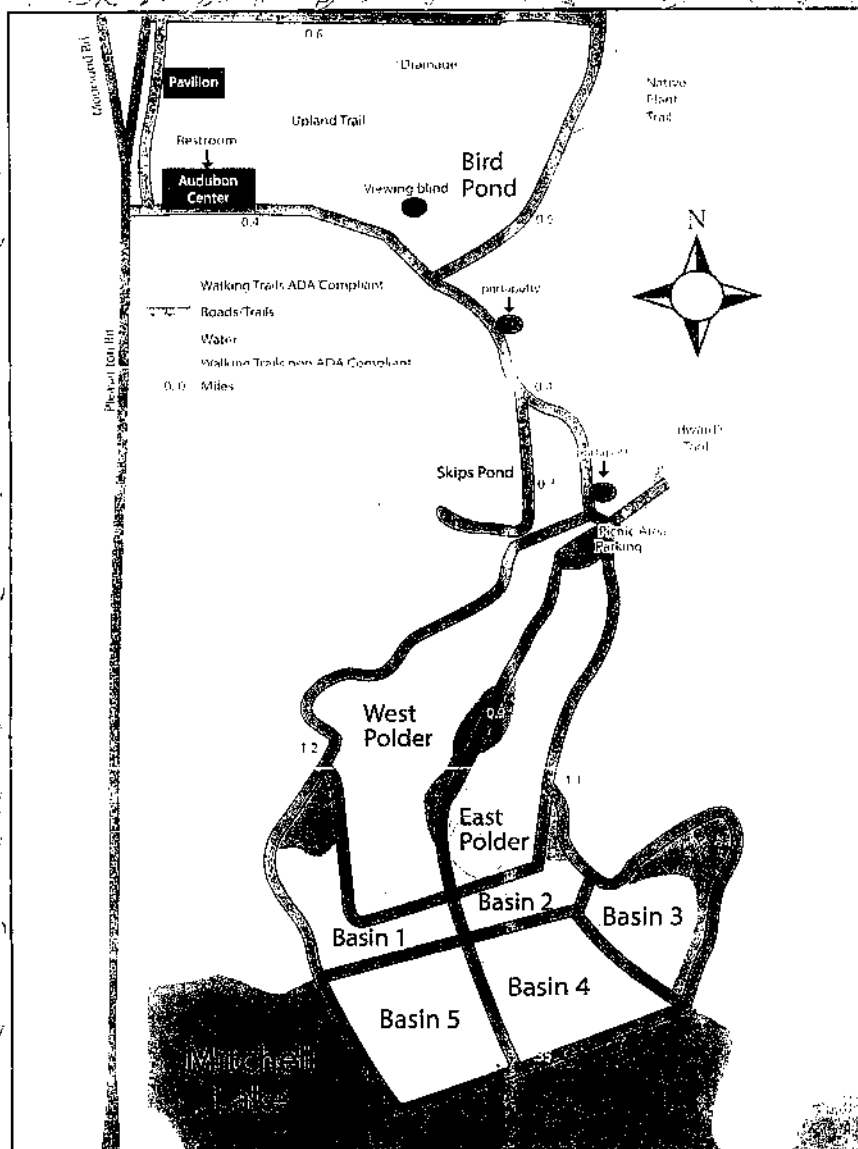
Section V – LIST OF APPENDICES

Appendix 1 – Mitchell Lake Layout Plan

Appendix 2 – Mitchell Lake Background Information Provided by SAWS

Appendix 3 – SAWS Proposal to Address AO Requirements

Appendix 1 – Mitchell Lake Layout Plan



Welcome to the Mitchell Lake Audubon Center

We want you to enjoy your visit to MLAC, so please keep the following in mind:

- Be sure to have enough water for you and your party
- WATCH YOUR STEP: Watch for small holes and uneven ground on trails
- Be watchful of snakes and biting insects
- Do not collect or remove any plants or animals from the property
- Please stay on the trails and out of the water.
- No Dogs allowed (Service Dogs Only)
- No Smoking

Visitor Center:
210-628-1639

Appendix 2 – Mitchell Lake Background Information

Mitchell Lake: Background

Mitchell Lake is a naturally occurring water body and is identified in the earliest documents of Bexar County by Spanish Explorers. In 1901, the City of San Antonio contracted with the San Antonio Irrigation Company to use Mitchell Lake as a water supply reservoir. Mitchell Lake Dam was constructed that same year and the lake was expanded. Afterwards, Mitchell Lake was used for approximately 80 years as a component of the City's stormwater and sewage collection facilities.

The City of San Antonio purchased the Lake in 1963. Discharges from Mitchell Lake were authorized by permits issued by the Texas Water Quality Board and its successor, the Texas Water Commission. NPDES permit requirements were incorporated into the permit issued in 1977.

The 1974 and 1977 discharge permits required that a dike be constructed on the northern portion of the Lake that would receive and contain waste activated sludge. The City constructed the dike, which then segregated approximately 75 acres from Mitchell Lake. This area is commonly referred to as the polder. Additional basins were later constructed that added an additional approximately 95 acres to the polder.

The San Antonio Water System (SAWS) was created as an agency of the City of San Antonio in 1992 and now operates Mitchell Lake pursuant to TPDES permit No. WQ0010137004. Today, SAWS discharges treated effluent into Mitchell Lake through outfall 002 that is described in TPDES Permit No. WQ0010137003 that applies to discharges from SAWS' Leon Creek WRC. The lake is on a migration route known as the Central North American Flyway and has long served as an ecologically bountiful rest stop for migrating shorebirds and waterfowl. In 1973, at the urging of the San Antonio Audubon Society, the San Antonio City Council passed Ordinance 41789 designating Mitchell Lake as a wildlife refuge. In 2004, the SAWS' Board of Trustees approved an Operating Agreement with the National Audubon Society to operate Mitchell Lake as part of its national network of community--based nature centers and chapters. The National Audubon society now operates a nationally renowned center for bird watching and aviary education on the site. Access to the Audubon site and lake perimeter are controlled and no access is allowed into or on the water.

SAWS attempts to maintain a lake level that minimizes rainfall runoff induced discharges from the lake. SAWS will provide water to Mitchell Lake to make up for evaporation losses primarily during the summer months when lake levels are low. SAWS does not provide water to the lake if the lake levels are near the spillway elevation.

Appendix 3 – SAWS Proposal for Constructed Wetland



Direct Line: (210) 233-3774
Email: Steven.Clouse@saws.org

February 6, 2018

Received

FEB 07 2018

6EN-W

CERTIFIED MAIL-RRR: 91 7199 9991 7034 6169 0758

Mr. Jerry Saunders
Water Enforcement Branch (6EN-WC)
U. S. Environmental Protection Agency, Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

Re: Administrative Order; Docket Number: CWA-06-2016-1770
NPDES Permit Number TX0065641

Dear Mr. Saunders:

The San Antonio Water System (SAWS) received a letter dated August 12, 2016 from the Compliance Assurance and Enforcement Division of the U.S. Environmental Protection Agency (USEPA) regarding discharges from Mitchell Lake (Lake) that are subject to the above-referenced NPDES permit. At our annual SSO Consent Decree program status meeting on November 8, 2017 the USEPA requested a letter from SAWS outlining the long term plan SAWS has for Mitchell Lake and describing when SAWS anticipates that Lake improvements will achieve permit compliance. This letter is submitted in response to that request.

Progress since our Last Written Communication on March 15, 2017

In our last written communication, SAWS outlined the history, environmental sensitivity and unique aspects of the Mitchell Lake complex. SAWS emphasized the intermittent nature of the discharges (only after significant rainfall events) makes traditional treatment options for Mitchell Lake impractical. To protect the unique habitat and environment of Mitchell Lake, and implement measures to address the permit excursions resulting from rainfall events, SAWS proposed constructing additional wetlands below Mitchell Lake to treat discharges from the Lake. SAWS outlined a series of anticipated steps necessary to evaluate this concept, including SAWS plan to construct a pilot wetlands to confirm the performance of a wetlands treatment system to achieve permit requirements. Full implementation of a wetlands treatment system is a very significant effort to evaluate and implement, and requires that SAWS purchase several hundred acres of land, reconstruct the existing dam and engage in extensive public communications.

Mr. Jerry Saunders
February 6, 2018
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SAWS has been actively working on this initiative. To date SAWS has:

- Contracted a multiyear agreement with a nationally recognized wetlands treatment firm – Alan Plummer Associates, Inc.
- Purchased one of the large (283 acre) properties necessary for the downstream wetlands for \$4 million
- Contacted a second large tract landowner to negotiate purchase of the remaining property necessary for construction of the downstream wetlands
- Selected a location for the pilot wetlands and begun geotechnical work in preparation of construction
- Begun design of the pilot wetlands
- Begun dam evaluations for suitability and modifications to the dam and spillway structure
- Determined regulatory issues that need to be addressed for the expanded wetlands
- Conducted the first round of seasonal sampling of Mitchell Lake water quality
- Completed a bathymetric survey of the Lake and working on stage-storage-area relationships

Anticipated Future Activities

Addressing the permit issues at Mitchell Lake is not a simple process. Due to the intermittent nature of the discharge events, and the diverse and significant habitat features that exist at the Lake, a biological treatment system is the most likely approach to satisfy permit requirements and protect the habitat. Because of the unique features of Mitchell Lake, proper evaluation and testing is mandatory before a full scale system can be implemented. As a biological process, it will take time to establish the pilot system and confirm system performance.

To properly evaluate the pilot project, wetlands will need to be constructed, planted, established and performance tested across all four weather seasons. Therefore, the pilot wetlands are scheduled to be constructed in late 2018 and early 2019, planted and “grown-in” in early to mid-2019, and operated and tested through mid-2020. As a result, the actual performance of the pilot wetlands will not be known until mid to late 2020.

Contingent upon the results of the pilot wetlands performance tests and dam evaluations, in late 2020 to early 2021, SAWS plans to employ a firm to design the full scale wetlands, dam improvements and spillway. Actual construction of the full scale, below lake wetlands is anticipated to begin in the 2022 timeframe, and can be anticipated to be two to three years in duration (wetlands, dam improvements, spillway, Lake perimeter work, etc.). It is anticipated the

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grow-in time requirements will be the same duration as the pilot wetlands. Therefore, full compliance with the permit across all seasons and weather events is anticipated in the 2025 or 2026 timeframe.

SAWS has evaluated other wetlands systems and believes this technology is the most practical option for Mitchell Lake. However, the pilot proof of concept must be successfully completed before construction on a full scale operation can commence. Therefore, SAWS will continue to keep other treatment alternatives under consideration if a better performing, more readily implementable or environmentally suitable option becomes available.

Ongoing Communications with USEPA on Progress

SAWS proposes to meet with the USEPA and present the plan, once the feasibility and pilot design is complete, which is anticipated in late 2018. SAWS recommends biannual updates (or more frequent if deemed necessary) be provided to USEPA concerning progress with the plan.

SAWS appreciates the USEPA continuing to allow SAWS the time necessary to confirm that "win-win" opportunities can be identified and achieved for this unique facility. Mitchell Lake is a destination known by visitors across the globe.

Please let me know if you will need additional information. Otherwise, I will continue to update you as to our further progress with the project.

Sincerely,



Steven M. Clouse
Senior Vice President/Chief Operating Officer

Cc: Mr. John Blevins
Director, Compliance Assurance and Enforcement Division
U. S. Environmental Protection Agency, Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

Ms. Carol Peters
U. S. Environmental Protection Agency, Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733