

SNY ISLAND LEVEE DRAINAGE DISTRICT

2019 ANNUAL NEWSLETTER

Just when we thought we'd seen it all and might get a respite from harsh weather, river flooding and incessant rainfall that has dogged the Sny Island Levee Drainage District for the last several years, we saw it again; even worse. In continually dealing with challenges such as those we have just gone through, we think back to those early settlers in the Sny and what they must have endured; no protection from river flooding, no pumping facilities to remove storm water, inadequate ditch systems to drain the land and no laws to organize

Early years' river levee construction



Rockport bottoms before the project in the mid-60s



a system to move forward with. As those early pioneers of the Sny gazed across the landscape of times such as those, they chose to move forward anyway. They knew it was the right thing to do not only for their families, but for future generations who would come to enjoy the fruits of those early pioneers' labor. State law was formed to allow the organization of a drainage district and rising from the infancy of that fledgling organization rose the Sny Island Levee Drainage District.

Then in the 1950s, the Commissioners began looking critically at improving the system and ultimately decided on a plan that included adding pumping stations, sedimentation basins, re-routing creeks into diversion channels and raising the mainstem Mississippi River levee. Known as the Federal Interior Project, funding at that time

included a Federal share of \$15,547,046.00 with the Sny landowners contributing \$3,382,497.00. Today, that would equate to more than \$118,000,000.00 in Federal money and nearly \$26,000,000.00 in Sny money while land value then was estimated at \$450.00/acre with land valued today at about \$10,000.00/acre. Without that investment in the mid-60s, the Sny would not be what it has become; an organization that protects more than 125,000 acres of the richest farm land in the country; provides enough kilo-calories of food to feed 1,000,000 people each year; protects the viability of a transportation network of Interstate, U.S. and State highways along with County and Township roads; protects two national rail systems; protects numerous cross-county pipelines and utilities; protects a county tax base in three west-central Illinois counties; protects communities, schools, water districts and sewage treatment plants; protects the viability of two locks & dams on the Mississippi River; indeed protects a way of life.

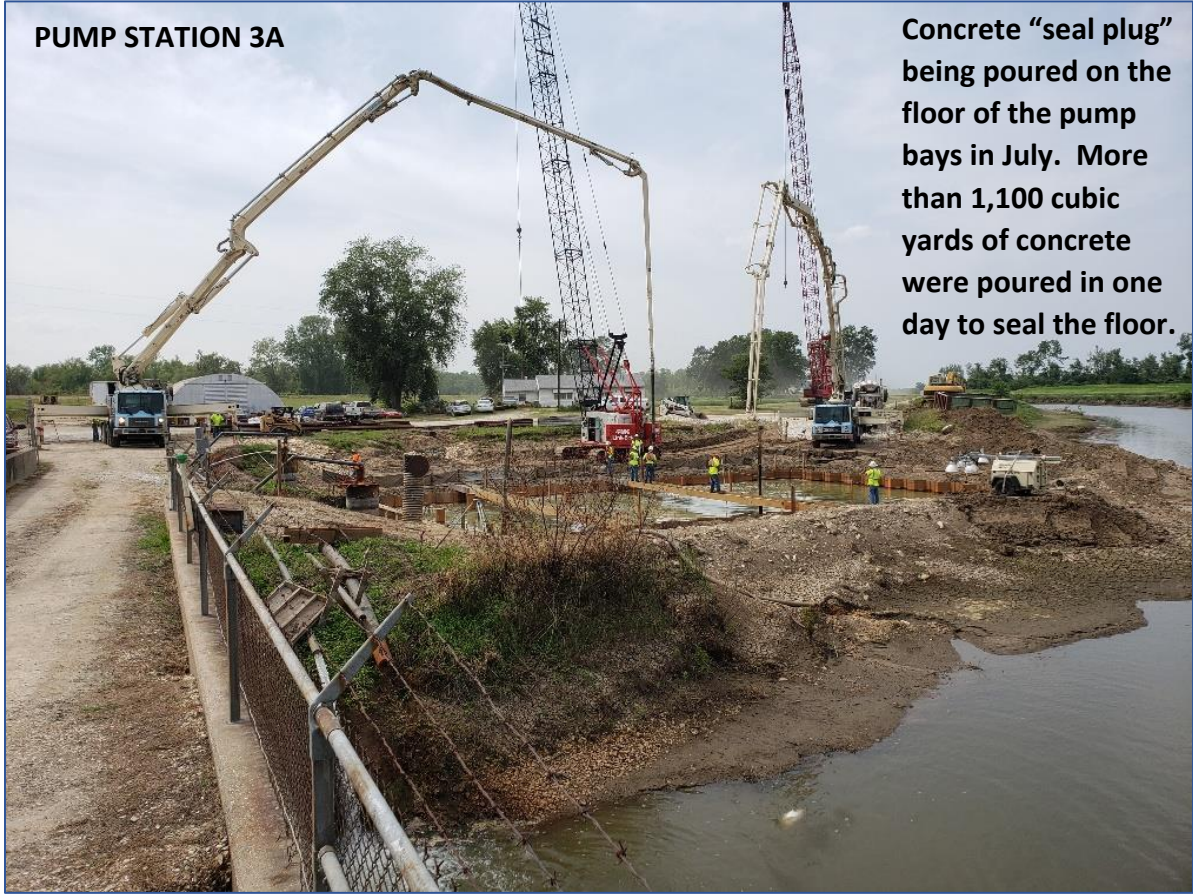
Let's not be fooled. To maintain what we have while at the same time looking to the future requires overcoming numerous challenges. It is not easy. It demands prudent planning, hard work, sacrifice, dedication and focus. Out of that planning came projects funded by what has been termed the 16th Additional Assessment. More than \$25,000,000.00 worth of improvements that included the construction of two "state of the art" pump stations, the installation of a "cut-off" wall to remedy a seepage issue at Pump Station 1 and the construction of about four miles of berm at a most vulnerable area of the Sny's mainstem river levee north of the Bunge Elevator complex in Reach 1. But the reward of success with these projects will be a much-improved system today plus generations to come will benefit from this revitalized Sny Island Levee Drainage District; just as we have.

16th ADDITIONAL ASSESSMENT PROJECT UPDATE



The image on the left shows work beginning at Pump Station 3A in December of 2018. Construction supplies were being off-loaded. Construction equipment being moved to the site. Preparations well underway from a contract awarded to Magruder Construction in 2018 to begin constructing a new pump station adding about 370,000 gallons per minute of pumping capacity.

PUMP STATION 3A



Concrete “seal plug” being poured on the floor of the pump bays in July. More than 1,100 cubic yards of concrete were poured in one day to seal the floor.



Both 3A pump bays constructed with center wall. Finished floor in place. Since this image was taken, additional concrete poured bringing the walls up to grade.

PUMP STATION 1 – NOVEMBER, 2018



The image on the left was taken at Pump Station 1 in November of 2018. Preliminary site work had just begun. Very little construction equipment had been moved in. **THE VERY BEGINNING!**



Concrete “seal plug” being poured in the floor of the Pump Station 1 pump bays in November, 2019. About 850 cubic yards of concrete poured in one day to seal off the floor of the two pump bays.



The concrete “seal plug” has been poured at Pump Station 1. The water has been pumped out of the pump bay exposing the concrete plug at the floor along with support piling for the floor. The piling will be cut off about 1 – 1.5’ above the current floor with a concrete finish floor poured over them.

As of this writing, form work for the walls is underway along with the laying of re-bar for the floor. Construction work continues as weather permits.

With the flooding that occurred in 2019, both contractors experienced considerable delays in construction. The original completion date for Pump Station 3A was May/June of 2020. The original completion date for Pump

Station 1 was September, 2020. Since flooding conditions prevented any work from being done at both locations for several weeks this year, the completion dates for each pump station were extended. Pump Station 3A is now scheduled to be completed in September of this year with the completion date for Pump Station 1 set for January of 2021, weather permitting.

Another key aspect of the construction work at Pump Station 1 is the installation of a “sheet pile cut-off wall” to prevent through seepage in the Pump Station 1 river levee. Since the Great Flood of ‘93’, seepage issues in the levee at Pump Station 1 have led to sinkholes developing



Pump Station 1 Sinkhole 2013 flood

**Polyethylene Piling – Pump
Station 1**



aggregate. It moved to an area around the engine #1 muffler. And finally, it moved to the north side of the pump station around a seep well. To remedy the problem, polyethylene sheet piling is to be driven on the river side of the main stem levee the length of the old and new pump stations at the site. The piling will stop the flow of seep water through the levee and thus prevent the development of any more sink holes.

around the pump station. This issue began with a sinkhole under the Pump Station 1 office. After filling it with aggregate, the hole moved to right in front of the overhead door at the pump station. Again, it was filled with

**Polyethylene Piling
Being Driven In The
Pump Station 1
River Levee.**



The construction of these two pump stations is the largest project of its type north of St. Louis and will likely never be duplicated again in the upper valley on the Mississippi. It is truly a historic undertaking that will impact life in the Sny for generations to come; very much like the “Federal Interior Project” undertaken by the Sny in the 1950s and 60s did. At that time, it was the largest project of its type in the upper valley that has had a dramatic impact not only on the Sny, but on the region as a whole given the transportation infrastructure that has evolved just in the last 20 years or so with the construction of I 72/172, the four lane bridge at Hannibal and the completion of the new Champ Clark Bridge carrying U.S. 54 across the river to Louisiana.

You are encouraged to visit these two project sites in the weeks and months ahead. They are readily accessible. Just try to keep a safe distance from construction crews, but take in the work that will likely not be seen again in this region.

PUMPING OPERATIONS

2019 proved to be yet another challenging year in the operation of the Sny's three pump stations. With the year starting out with a wet winter, followed by a wet spring resulting in flooding along the river, we experienced a near record year in fuel purchased as well as pumping hours at our pump stations. Surpassed only by the '93 flood year, the Sny purchased the second most diesel fuel in its history in 2019. As of the end of November, we've purchased 747,833 gallons of diesel fuel for our pumping operations and we're still pumping. Fortunately, we've been able to shut



Gearbox #1 Being
Removed At Pump
Station 1

down at Pump Station 1, but we're still running two shifts a day seven days a week at Pump Station 3A while running one shift about every three days at Pump Station 4. Total pumping hours on the District's eight engines this year is 27,836 surpassed only by the 28,675 hours pumped in 1993. You guessed it, with the many hours of operation comes wear and tear and we had our share of repairs this year. We had a gearbox breakdown in early June on pump #1 at Pump Station 1 causing several weeks of down time on that unit while undergoing repairs at Averkamp Machine in Quincy.

We experienced serious engine failures at both Pump Station 3A and 4 this summer. Engine #3 at Pump Station 3A had a bearing failure on the cross drive leading to the failure of the oil pump and water pump. This led to the shut down of the engine for more than a month.

Two technicians from Fairbanks Morse Engine in Houston, Texas assisted by Brad Motley, our fulltime operator at 3A, worked on the unit to get it up and running. It was noted that the engine had 48,000 hours on it since it was last overhauled in 2002. In an effort to prevent such a shutdown next year, Fairbanks Morse will be inspecting the engines at Pump Station 3A this winter in an effort to detect problem areas and correct them before getting into full swing next spring.

We also had engine issues at Pump Station 4 causing intermittent shutdowns on more than one occasion this past summer. Mechanics from Altorfer Cat in Hannibal were on site assisted by both Brad Motley and Brad Eigenman, our fulltime operator at Pump Station 4, in an effort to complete repairs as soon as possible.

The chart below reflects the total gallons of diesel fuel purchased by month annually since 1996. We plan to include it in all of our annual newsletter to keep you better informed as to the amount of fuel used for our pumping operations every year.

Total Gallons of diesel fuel delivered to pump stations 1, 3A, & 4 "by month" per individual year.													Yearly
	January	February	March	April	May	June	July	August	September	October	November	December	Total Gal
1996	0	0	43,708	21,650	108,839	58,505	22,202	0	0	0	29,207	7,400	291,511
1997	0	14,518	36,478	7,300	58,119	22,309	0	0	0	0	0	0	138,724
1998	0	30,005	36,204	80,214	59,260	44,014	45,005	15,001	14,435	0	29,701	0	353,839
1999	0	14,701	22,000	59,700	29,301	52,099	22,102	0	0	0	0	22,199	222,102
2000	0	0	0	0	0	37,105	14,900	0	0	0	0	0	52,005
2001	0	7,402	29,909	44,014	111,912	59,171	22,627	0	0	0	0	0	275,035
2002	0	0	15,057	29,800	112,357	44,506	0	0	0	0	0	0	201,720
2003	0	0	0	0	21,730	29,311	14,808	0	0	0	0	14,804	80,653
2004	0	0	44,123	14,732	29,916	43,718	0	14,694	15,000	0	0	0	162,183
2005	0	0	29,596	14,604	35,905	0	0	0	0	0	0	0	80,105
2006	0	0	14,698	15,061	7,484	15,100	0	0	0	0	0	0	52,343
2007	0	0	0	37,038	29,583	0	44,702	21,911	0	0	0	0	133,234
2008	0	22,734	37,006	22,195	126,786	126,478	119,234	29,975	44,918	0	0	22,098	551,424
2009	22,384	0	37,587	51,600	90,230	37,084	7,600	22,697	0	29,728	74,535	22,549	395,994
2010	0	15,170	50,981	75,016	60,111	118,892	88,951	74,564	82,060	14,684	7,600	0	588,029
2011	0	14,760	44,874	82,244	82,694	89,616	22,454	14,600	0	0	0	0	351,242
2012	0	22,235	0	15,000	7,500	7,451	0	0	0	0	0	0	52,186
2013	0	0	22,501	97,087	156,097	103,911	22,585	0	0	0	0	0	402,181
2014	0	0	0	37,109	30,198	37,200	81,354	22,204	22,031	29,590	0	0	259,686
2015	0	29,718	0	0	14,520	125,588	125,849	22,205	0	0	15,002	80,999	413,881
2016	29,346	14,863	36,179	14,621	36,611	0	22,366	14,405	21,927	14,704	14,813	7,598	227,433
2017	14,845	7,503	15,113	37,515	134,157	51,795	7,002	0	0	7,359	0	7,338	282,627
2018	0	7,500	14,849	22,237	29,953	21,830	30,337	7,415	14,666	66,106	22,636	29,727	267,256
2019	29,592	37,395	67,447	140,895	176,117	110,891	59,532	29,537	14,892	51,993	29,542		747,833

2019 FLOOD

I know this sounds like a broken record, but we are addressing yet another flood event in the Sny. And we're not talking about just any run-of-the-mill flood event, we're talking about the second highest flood in the history of the Sny. In places north of us like the Quad Cities, it was a record flood.

To get a true picture of the scope of the event, we actually have to start in the fall of 2018. It was wet in the valley. We actually had a 25' river on the Hannibal gauge in October of 2018. We did see the river go down, but it never really got to what we would call a normal low stage in the winter. The wet weather continued throughout the winter with considerable precipitation; both rain and snow throughout the Midwest. Continual springtime rainfall throughout the region not only led to higher river stages, but considerable interior flooding throughout the Sny.





ROSS TOWNSHIP



**"DEAD DOG"
AREA REACH 1**

Interior flooding such as that pictured above was commonplace in the Sny. Thousands of acres in the District did not get planted due to the extremely wet weather. Actually, the description of "extremely wet" doesn't adequately describe the situation. Record rainfall throughout the Midwest more accurately describes the situation.



As river stages began creeping up, Sny staff was putting the finishing touches on one component of the 16th Additional Assessment; the levee berm. The image on the left shows finishing work on the levee slope north of Miller's Corner in Reach 1. The project was wrapped up in February of this year, just in time to play a major role in fending off the approaching flood event.

By the end of March, the river was over 25' on the Hannibal gauge and 23' on the Louisiana gauge. That stage in Louisiana led to the closing of the U.S. 54 Illinois approach to the Champ Clark bridge. Consideration was given to install a temporary levee closing off the Illinois approach to thru traffic as flood water edged upward.



WATER ON U.S. 54 APRIL 4



The old design of the Illinois approach went through the Sny's mainstem Mississippi River levee allowing water to pass through at a stage of 24.9' on the Louisiana gauge.

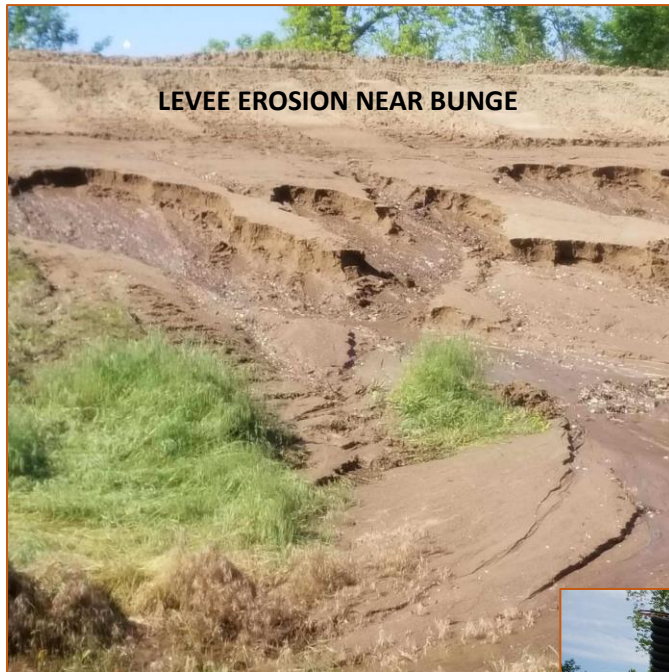
By mid-April, river stages began to recede. It appeared we had successfully navigated through yet another flood event. Mother Nature had other plans.

Heavy rain continued throughout the valley. River stages began to climb at alarming rates. Daily

flood updates from the National Weather Service and the Corps of Engineers predicted ever higher river stages. From April 28 to May 3, the river stage on the Hannibal gauge went from 20.95' to 28.21'. Volunteer sandbagging sites were established in Hull and Pleasant Hill. 24-hour levee patrols were instituted. Flood-fighting crews were organized and put to use. A full-scale levee push-up wasn't possible due to the rapid rise in river stages. Instead, two Caterpillar D6 bulldozers with 6-way blades were rented to put up a "wind row" of sand over the entire 54 miles of Sny river levee.



We made it through and the river started to recede down to about 20.5' on the Hannibal gauge on May 18. However, we were in for yet another round when river stages gradually started creeping up throughout the system. Seepage led to severe levee erosion in a segment of Reach 1 near the Bunge elevator complex. Boils became more active along with the development of a



sinkhole in the side of the main stem river levee north of an area known as “Kramer’s Mailbox” in Reach 1. The boils and the sinkhole were controlled through sandbag rings. These areas were then manned 24-hours per day to monitor their conditions. Drain tile was installed in the levee slope to address severe erosion north of the Bunge site. Once the tile was in place (image below), sand was trucked in to restore the slope.

The image below shows volunteers sandbagging a large boil at the levee toe about a half mile north of Kramer’s Mailbox in Reach 1.





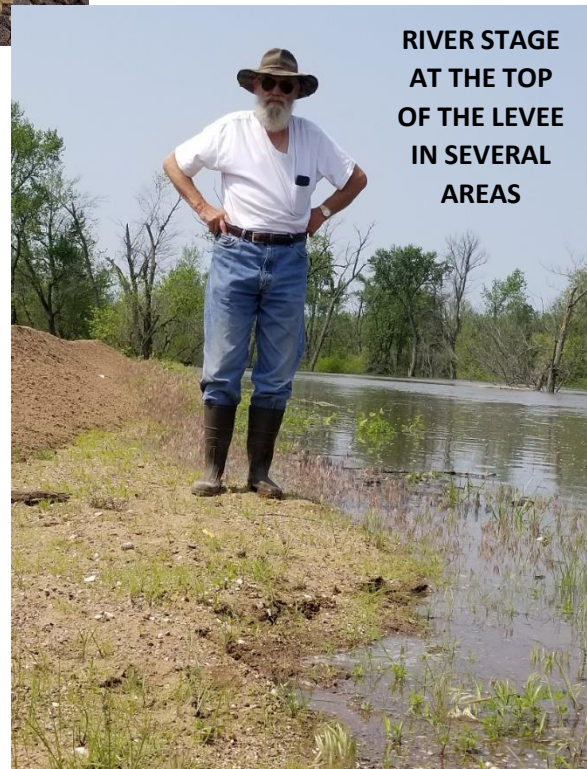
The image on the left shows volunteers and Corps of Engineers officials installing a bentonite seal where the Kansas City Southern rail line crosses the Sny's main stem river levee across the river from Louisiana. The process involves removal of railroad ties and ballast rock from a section of track. A bentonite/sand mixture is placed in the trench where the ties and ballast were removed to seal the area so river water won't seep through the site and into the District. Kansas City Southern Railroad officials also assisted with the process.

Assistance was readily provided by township officials from throughout the District as well as the Illinois Department of Corrections in Pittsfield, the Illinois Department of Transportation and the Pike County

Sherriff's Department. Donations of food and water came from throughout the region for the benefit of the flood workers.

The Sny's business office served as a hub for dispersal of flood fighting supplies for this area. Sandbags and plastic were trucked to the Sny office from Springfield and sent out to various flood-fighting operations on both the Mississippi and Illinois Rivers.

Finally, the river crested at 30.05' on the Hannibal gauge on June 2. Gradually, the river began to fall, albeit at a relatively slow pace. It took until June 27 for the river stage to fall below 20' and all could begin to take a deep sigh of relief.



**RIVER STAGE
AT THE TOP
OF THE LEVEE
IN SEVERAL
AREAS**



During the course of the nearly four-month long battle, the Sny was visited by numerous State officials to monitor flood-fighting efforts. On the left is an image of Illinois Department of Natural Resources Director Colleen Callahan meeting with Sny Commissioners, landowners and Farm Bureau officials on the main stem river levee to get a first-hand look at the flood-fighting efforts. While in the area, Ms. Callahan got a chance to review various changes being considered in the State's Administrative Code that would directly impact current and future flood-fighting efforts.

Illinois Secretary of Agriculture John Sullivan not only visited the Sny to get a report on flood-fighting efforts, but also donated straw from his farming operation to assist the Sny with its efforts. Also meeting with landowners and officials to monitor conditions on the river were Illinois State Senator Steve McClure and Illinois State Representative C.D. Davidsmeyer.



LEGISLATIVE ISSUES



During the course of the year, Sny officials made their presence felt in Washington, D.C. as well as at meetings throughout the Midwest to represent the interests of the landowners. This past year, the Commissioners and Superintendent were in Washington three times to meet with Corps of Engineers leadership at headquarters as well as with our elected officials to discuss issues impacting the drainage district. Topics addressed were the Sny's levee

accreditation, the Waters of The U.S. (WOTUS), aspects of the Water Resources & Development Acts of 2018 and 2020 as well as development of a plan for flood control in the Upper Mississippi River Valley. Pictured above are Sny officials meeting with Congressman Darin LaHood in his Washington, D.C. office.

The Sny was also represented at flood control meetings sponsored by the Upper Mississippi River Basin Association in Hannibal, Missouri and Bloomington, Minnesota to address planning efforts underway to develop a basin-wide plan for flood control in the upper Mississippi River Valley.

The Sny continues to maintain a membership and is active in the Mississippi Valley Flood Control Association headquartered in Memphis, Tennessee. Commissioner Koeller sits on the Executive Committee of the Association representing the State of Illinois. In the past Commissioners Borrowman and Lundberg have served on the Resolution and Nominating Committees with Superintendent Reed serving on the Engineering Committee. The Association represents flood control



ASSISTANT SECRETARY OF THE ARMY R.D. JAMES SPEAKING AT THE MVFCA ANNUAL MEETING IN NEW ORLEANS

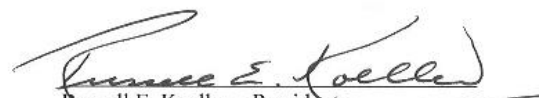


interests and is active in legislative efforts in Washington, D.C. The Sny is also active in the Upper Mississippi, Illinois & Missouri River Association headquartered in Quincy and the National Waterways Conference in Arlington, Virginia, with Superintendent Reed serving on the Board of Directors of the Conference.

IN REMEMBRANCE

As we bring the 2019 Annual Newsletter to a close, it is with sadness that we report on the recent passing of Mr. Bob Richter. There was no greater supporter of the Sny than Bob. You didn't hear much about Bob when it came to promoting the interests of the Sny. But that was his way; to stay in the background and work behind the scenes to do whatever he could for the benefit of the drainage district. He assisted with scheduling meetings with the political leadership of the State of Missouri. He furnished his LaGrange, Missouri office for meetings of officials from throughout the region to address ways to improve flood control. He always wanted what was best for the Sny, often times at his expense. And above all else, his interest was in future generations, that they might have the opportunity to grow and prosper in the Sny. He was truly our friend and we will miss him.

As the holiday season approaches, we at the Sny want to wish you, your families and friends a very Merry Christmas and a safe, healthy and prosperous New Year. If you're traveling over the holidays, please be careful, drive safely and lookout for the other guy. In observance of the Christmas and New Year holidays, the Sny Business Office will be closed on December 24, 25, 31 and January 1. We look forward to working with all of you in 2020!


Russell E. Koeller – President


Dan Lundberg – Secretary


Brady Borrowman – Commissioner

If you would like to access this year's or previous years' newsletters electronically, they can be found at www.snyisland.org/newsletterhtm

The financial information on the last page presents a statement of revenue and expenditures for the fiscal year ending October 31, 2018.

SNY ISLAND LEVEE DRAINAGE DISTRICT
STATEMENT OF REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCES
GOVERNMENTAL FUNDS
YEAR ENDED OCTOBER 31, 2018

	General Annual Maintenance	Capital Projects Fund Reserve Fund Fall Creek	Debt Service Fund	Permanent Fund Reserve Fund Seepage	Total Governmental Funds
REVENUES					
Assessments - general	\$ 1 899 082		\$ 288 385		\$ 2 187 467
Assessments - 16th additional assessment	7 100 833				7 100 833
Material and pipe sales	62 419				62 419
Lease income	16 500				16 500
Farm income	35 970				35 970
Donation	36 500				36 500
Investment earnings	3 693	\$ 1 949		\$ 6 611	12 253
Miscellaneous	6 146		26		6 172
Total revenue	<u>9 161 143</u>	<u>1 949</u>	<u>288 411</u>	<u>6 611</u>	<u>9 458 114</u>
EXPENDITURES					
Current:					
General administration					
Payroll	122 876				122 876
Office supplies	6 175				6 175
Building utilities and maintenance	11 248				11 248
Insurance	112 086				112 086
Legal and audit	419 219				419 219
Engineering	18 570				18 570
Miscellaneous	45 916				45 916
Pumping Operations					-
Payroll	144 105				144 105
Operating expenses	601 955				601 955
Heavy Equipment Operations					-
Payroll	28 979				28 979
Equipment expenses	81 306				81 306
Other Operations					-
Payroll	7 514				7 514
Equipment expenses	46 200				46 200
Pipe and wire rope	54 332				54 332
Shop supplies and maintenance	15 055				15 055
Levee and ditch maintenance	29 371				29 371
Miscellaneous					-
Payroll taxes	26 626				26 626
Employee benefits	134 236				134 236
Debt Service:					-
Principal	1 743 394		345 000		2 088 394
Interest	45 189		5 565		50 754
Capital Outlay:	<u>1 261 643</u>				<u>1 261 643</u>
Total expenditures	<u>4 955 995</u>	<u>-</u>	<u>350 565</u>	<u>-</u>	<u>5 306 560</u>
OTHER FINANCING SOURCES					
Transfers	(19 431)		19 431		-
Debt Certificate proceeds	863 040				863 040
Net change in fund balances	<u>5 048 757</u>	<u>1 949</u>	<u>(42 723)</u>	<u>6 611</u>	<u>5 014 594</u>
Fund balances - beginning	<u>(2 135 437)</u>	<u>571 994</u>	<u>382 237</u>	<u>1 843 278</u>	<u>662 072</u>
Fund balances - ending	<u>\$ 2 913 320</u>	<u>573 943</u>	<u>\$ 339 514</u>	<u>\$ 1 849 889</u>	<u>\$ 5 676 666</u>

The accompanying notes are an integral part of these financial statements.