



# Tri-Lakes Management District Annual Meeting

## September 3, 2022

- Tri-Lakes Mission Statement

To pursue activities that positively impact the cleanliness and health of the lake water.

- Strategic Imperatives

- Prioritize safety, legality, ethics, and fiduciary responsibility above everything
  - Build in elements of sustainability into everything we plan and execute
    - Communicate efficiently and effectively with all stakeholders
    - Seek out and leverage resources to help achieve our mission
  - Consider short-medium-long term activities to achieve our mission
  - Manage and make decisions using data to the fullest extent possible



# Meeting Ground Rules

- Electors will have 3 minutes when speaking.
  - Each speaker will need to identify themselves and state local address.
  - Please save questions until the participation period after all presentations are complete.
    - Exceptions are during election of commissioners, questions may be asked pertaining to qualifications.
    - Also questions and discussion will be open after a motion and second on the budget are made.





## Election of Commissioners,

Qualification to vote:

Residents of the Lake District

Property Owners as listed on Tax Bill

Lake Sherwood, Brad Adkins, 1 year term, completion of prior term.

Lake Arrowhead, Bob Ness, 3 year term.



# YTD Harvesting Data 2022

	May		6/1 - 6/15		6/16 - 6/30		7/1 - 7/15		7/16 - 7/31		8/1 - 8/15		8/16 - 8/31		9/1 - 9/15		9/16 - 9/30		Total	
Yearly	#	Lbs.	#	Lbs.	#	Lbs.	#	Lbs.	#	Lbs.	#	Lbs.	#	Lbs.	#	Lbs.	#	Lbs.	#	Lbs.
Totals																				
2005	16	52,400	50	174,400	81	289,300	95	340,300	92	333,500	107	381,700	130	469,600	60	215,400	5	15,200	636	2,271,800
2006	19	68,500	41	145,400	72	268,900	65	242,300	77	291,400	112	422,800	126	477,100	43	159,900	12	41,400	567	2,117,700
2007	16	54,500	62	221,800	96	342,400	95	341,600	163	593,200	195	729,300	132	494,500	55	202,300	21	76,300	835	3,055,900
2008	5	16,700	15	45,100	83	281,100	96	347,000	113	411,000	157	584,700	111	416,000	78	286,200	12	43,400	670	2,431,200
2009	5	15,400	39	139,200	125	454,000	151	560,500	128	476,500	130	491,200	135	514,700	90	339,300	33	116,700	836	3,107,500
2010	28	94,700	0	244,400	140	536,900	103	402,700	107	428,300	106	419,000	105	406,100	40	150,800	7	25,400	636	2,708,300
2011	0	0	8	15,000	58	211,050	71	262,600	82	320,800	121	476,200	130	503,300	62	239,100	13	43,100	545	2,071,150
2012	95	356,500	114	436,200	100	394,600	145	579,500	187	760,000	161	660,800	178	732,700	64	258,600	12	45,000	1,056	4,223,900
2013	7	22,500	17	60,500	55	215,300	68	274,300	175	697,100	149	588,700	115	457,500	83	326,200	30	112,900	699	2,755,000
2014	7	14,000	23	41,300	92	282,300	139	550,000	133	547,600	99	394,700	73	279,800	61	239,900	12	43,300	639	2,392,900
2015	12	27,800	36	82,900	73	252,900	86	323,900	127	484,900	89	348,100	106	404,200	46	173,100	11	38,300	586	2,136,100
2016	9	19,100	73	170,450	92	287,200	124	433,000	134	450,750	116	370,400	91	266,200	45	131,000	5	12,500	689	2,140,600
2017	6	6,600	22	43,100	80	212,000	74	227,500	106	316,500	104	327,000	98	313,500	31	84,500	15	48,000	536	1,578,700
2018	5	3,000	31	24,700	55	69,500	99	187,200	141	293,500	106	267,000	98	244,800	40	96,000	11	25,300	586	1,211,000
2019	0	0	17	15,400	27	34,700	62	84,500	118	223,200	136	332,000	60	124,000	53	115,750	18	31,750	491	961,300
2020	19	35,100	12	13,500	55	98,600	75	182,000	122	288,500	143	318,000	132	295,050	76	182,450	11	26,000	645	1,439,200
2021	0	0	32	36,800	64	155,500	81	208,600	148	349,500	155	378,500	161	398,500	113	250,200	42	64,850	796	1,842,450
2022	2	4,000	12	17,000	44	70,500	101	224,500	125	276,000	169	442,000	153	420,000					606	1,454,000
2022 Estimate															61	202,982	16	47,612	683	1,704,594





# Non Migratory Goose Reduction

- 2020, We removed 234 geese from Lakes Camelot and Lake Sherwood
- 2021, We removed 188 geese from all 3 lakes
- 2022 We removed 94 geese from all 3 lakes
- Each Goose contributes around 2.25# of waste per day times around 200 ice free days times 516 geese equals 232,200 lbs of waste per year.
- Phosphates account for around 1.3% of goose waste and equates to around 3,019 lbs of phosphates eliminated from our waters and shoreline per year.
- Nitrates account for around 4.4% of goose waste and this eliminated around 10,217 lbs of nitrates per year.



# Non Migratory Goose Reduction

- Non migratory geese are also a known contributor of E-Coli and in prior years we had several beach advisories and closings due to high E-Coli counts.
- Last year we had 1 E-Coli advisory and 1 E-Coli issue this year. Additional testing resulted in a high of 34 ppm for E-Coli at our 12 test locations. Readings of 235 ppm results in an advisory and 1,000 ppm results in a closure.
- Geese are also known carriers of several Bacteria's, Viruses, Parasites and Funguses.
- They also contribute to swimmers itch.





# Lakes Dam Operations

- All Tri-Lakes dams (4) are owned by Adams County.
- The Adams County Conservationist is responsible for the dams.
- The dams were inspected this year by Ayres (an engineering company) and there are no concerns with the dams.
- Dam levels are maintained by two dam operators and are held within the upper and lower limits set forth by the State of Wisconsin.
- The dam operator salaries (\$10,000 annual budget) are paid by Adams County.



# List of Accomplishments

- 1) Conducted 18 full scale sediment borings in the 3 Lakes and the watershed with expanded tests.
- 2) Solitude conducted 3 tests in 2 of the 3 lakes, 6 in Camelot, to determine levels of phosphates for alum treatments.
- 3) Engaged EOR, an Environmental Engineering Firm
- 4) 3rd year of the non migratory goose roundup
- 5) Second year offering a reduced cost Beachroller purchase
- 6) In August we expanded e-coli testing to 12 locations on a weekly basis, more in line with EPA standards.
- Hired Drone Pilot to document and observe watershed and lake conditions
- Backflush after 7/15 each year
- Installed Depth Finders on all Harvestors





# Other Achievements

- The Wisconsin DNR has initiated a denitrification testing program along DNR land on CTY D using testing data collected by the 14 Mile Watershed Committee. Moving nitrate waters through organic soil should remove a sizeable concentration of nitrates.
- Nitrates are quite water soluble so they will infiltrate the waters as they work down into the aquifer.

Taken from the 8th Ave bridge looking at 14 Mile, 7/21/2021





Taken from the 8th Ave bridge looking at 14 Mile, 7/21/2021





Taken from the 8th Ave bridge August 12,  
2021, after 8/7, 5" Rainfall





# Drone Footage 8/14/2022, DNR property at 8<sup>th</sup> Ave Bridge





# Drone Footage 8/14/2022, Lake Sherwood from the dam





## Swan Bay, Lake Sherwood



## Butterfly Bay, Lower Camelot 8/29/2022






# Results of sediment borings, 1 of 18 locations

10 LC, 8<sup>th</sup> Ave Bridge page 1

10 LC, 8<sup>th</sup> Ave Bridge page 2



Pace Analytical  
www.paceanals.com

Pace Analytical Services, LLC  
1241 Bellevue Street - Suite 9  
Green Bay, WI 54302  
(920)469-2436

## ANALYTICAL RESULTS

Project: 20-0278  
Pace Project No.: 40240750

Sample: 10LC Lab ID: 40240750001 Collected: 02/16/22 12:00 Received: 02/17/22 15:05 Matrix: Solid  
Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.


Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCs PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
Pace Analytical Services - Green Bay									
PCB-1016 (Aroclor 1016)	<23.2	ug/kg	76.2	23.2	1	02/21/22 03:18	02/21/22 14:32	12674-11-2	
PCB-1221 (Aroclor 1221)	<23.2	ug/kg	76.2	23.2	1	02/21/22 03:18	02/21/22 14:32	11104-28-2	
PCB-1232 (Aroclor 1232)	<23.2	ug/kg	76.2	23.2	1	02/21/22 03:18	02/21/22 14:32	11141-16-5	
PCB-1242 (Aroclor 1242)	<23.2	ug/kg	76.2	23.2	1	02/21/22 03:18	02/21/22 14:32	53469-21-9	
PCB-1246 (Aroclor 1246)	<23.2	ug/kg	76.2	23.2	1	02/21/22 03:18	02/21/22 14:32	12672-29-6	
PCB-1254 (Aroclor 1254)	<23.2	ug/kg	76.2	23.2	1	02/21/22 03:18	02/21/22 14:32	11097-69-1	
PCB-1260 (Aroclor 1260)	<23.2	ug/kg	76.2	23.2	1	02/21/22 03:18	02/21/22 14:32	11096-82-5	
PCB, Total	<23.2	ug/kg	76.2	23.2	1	02/21/22 03:18	02/21/22 14:32	1336-38-3	
Surrogates									
Tetrachloro-m-xylene (S)	76	%	67-102		1	02/21/22 03:18	02/21/22 14:32	877-09-8	
Decachlorobiphenyl (S)	74	%	47-114		1	02/21/22 03:18	02/21/22 14:32	2051-24-3	
<b>6020B MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3050B									
Pace Analytical Services - Green Bay									
Arsenic	7.9	mg/kg	1.3	0.40	6.667	02/18/22 06:47	02/18/22 16:27	7440-38-2	
Barium	37.1	mg/kg	1.3	0.40	6.667	02/18/22 06:47	02/18/22 16:27	7440-39-3	
Cadmium	<0.15	mg/kg	1.0	0.15	6.667	02/18/22 06:47	02/18/22 16:27	7440-43-9	D3
Chromium	6.1	mg/kg	3.1	0.93	6.667	02/18/22 06:47	02/18/22 16:27	7440-47-3	
Copper	9.6	mg/kg	2.7	0.82	6.667	02/18/22 06:47	02/18/22 16:27	7440-50-8	
Lead	2.2	mg/kg	1.0	0.28	6.667	02/18/22 06:47	02/18/22 16:27	7439-92-1	
Manganese	254	mg/kg	2.8	0.84	6.667	02/18/22 06:47	02/18/22 16:27	7439-96-5	P6
Nickel	4.8	mg/kg	1.3	0.40	6.667	02/18/22 06:47	02/18/22 16:27	7440-02-0	
Selenium	1.1	mg/kg	1.0	0.28	6.667	02/18/22 06:47	02/18/22 16:27	7782-49-2	
Zinc	19.8J	mg/kg	35.5	10.6	6.667	02/18/22 06:47	02/18/22 16:27	7440-66-6	D3
<b>7471 Mercury</b>									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Pace Analytical Services - Green Bay									
Mercury	<0.015	mg/kg	0.053	0.015	1	02/23/22 13:10	02/24/22 08:11	7439-97-6	
<b>8270E MSSV PAH by SIM</b>									
Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3546									
Pace Analytical Services - Green Bay									
Acenaphthene	<3.3	ug/kg	25.5	3.3	1	02/22/22 08:02	02/22/22 13:31	83-32-9	
Acenaphthylene	<3.2	ug/kg	25.5	3.2	1	02/22/22 08:02	02/22/22 13:31	208-96-8	
Anthracene	<3.2	ug/kg	25.5	3.2	1	02/22/22 08:02	02/22/22 13:31	120-12-7	
Benzo(a)anthracene	<3.3	ug/kg	25.5	3.3	1	02/22/22 08:02	02/22/22 13:31	56-55-3	
Benzo(a)pyrene	<2.9	ug/kg	25.5	2.9	1	02/22/22 08:02	02/22/22 13:31	50-32-8	
Benzo(b)fluoranthene	<3.5	ug/kg	25.5	3.5	1	02/22/22 08:02	02/22/22 13:31	206-99-2	
Benzo(g,h,i)perylene	<4.5	ug/kg	25.5	4.5	1	02/22/22 08:02	02/22/22 13:31	191-24-2	
Benzo(k)fluoranthene	<3.3	ug/kg	25.5	3.3	1	02/22/22 08:02	02/22/22 13:31	207-08-9	
Chrysene	<4.8	ug/kg	25.5	4.8	1	02/22/22 08:02	02/22/22 13:31	218-01-9	
Dibenz(a,h)anthracene	<3.5	ug/kg	25.5	3.5	1	02/22/22 08:02	02/22/22 13:31	53-70-3	
Fluoranthene	<3.0	ug/kg	25.5	3.0	1	02/22/22 08:02	02/22/22 13:31	206-44-0	
Fluorene	<3.1	ug/kg	25.5	3.1	1	02/22/22 08:02	02/22/22 13:31	86-73-7	
Indeno(1,2,3-cd)pyrene	<5.3	ug/kg	25.5	5.3	1	02/22/22 08:02	02/22/22 13:31	193-39-5	

## REPORT OF LABORATORY ANALYSIS

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www.pacelabs.com

Pace Analytical Services, LLC  
1241 Bellevue Street - Suite 9  
Green Bay, WI 54302  
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## ANALYTICAL RESULTS

Project: 20-0278  
Pace Project No.: 40240750

Sample: 10LC Lab ID: 40240750001 Collected: 02/16/22 12:00 Received: 02/17/22 15:05 Matrix: Solid  
Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8270E MSSV PAH by SIM</b>									
Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3546									
Pace Analytical Services - Green Bay									
1-Methylnaphthalene	<3.7	ug/kg	25.5	3.7	1	02/22/22 08:02	02/22/22 13:31	90-12-0	
2-Methylnaphthalene	<3.7	ug/kg	25.5	3.7	1	02/22/22 08:02	02/22/22 13:31	91-57-6	
Naphthalene	<2.5	ug/kg	25.5	2.5	1	02/22/22 08:02	02/22/22 13:31	91-20-3	
Phenanthrene	<2.9	ug/kg	25.5	2.9	1	02/22/22 08:02	02/22/22 13:31	85-01-8	
Pyrene	<3.8	ug/kg	25.5	3.8	1	02/22/22 08:02	02/22/22 13:31	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	41	%	36-66		1	02/22/22 08:02	02/22/22 13:31	321-60-8	
Terphenyl-d14 (S)	47	%	41-97		1	02/22/22 08:02	02/22/22 13:31	1718-61-0	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Pace Analytical Services - Green Bay									
Percent Moisture	34.5	%	0.10	0.10	1		02/18/22 17:05		
<b>350.1 Ammonia</b>									
Analytical Method: EPA 350.1 Preparation Method: EPA 350.1									
Pace Analytical Services - Green Bay									
Nitrogen, Ammonia	24.4J	mg/kg	32.3	9.7	1	02/28/22 22:33	03/01/22 01:57	7664-41-7	
<b>351.2 Total Kjeldahl Nitrogen</b>									
Analytical Method: EPA 351.2 Preparation Method: EPA 351.2									
Pace Analytical Services - Green Bay									
Nitrogen, Kjeldahl, Total	3410	mg/kg	574	122	5	03/02/22 08:45	03/02/22 21:22	7727-37-9	
<b>353.2 Nitrogen, NO2/NO3</b>									
Analytical Method: EPA 353.2 Preparation Method: EPA 353.2									
Pace Analytical Services - Green Bay									
Nitrogen, NO2 plus NO3	<1.5	mg/kg	4.9	1.5	1	02/23/22 09:55	02/24/22 11:43		
<b>365.4 Total Phosphorus</b>									
Analytical Method: EPA 365.4 Preparation Method: EPA 365.4									
Pace Analytical Services - Green Bay									
Phosphorus	692	mg/kg	23.0	3.4	1	03/02/22 08:45	03/02/22 13:29	7723-14-0	
<b>Total Organic Carbon Quad</b>									
Analytical Method: EPA 9060									
Pace Analytical Services - Green Bay									
Total Organic Carbon	48700	mg/kg	10100	3020	1		03/02/22 10:57	7440-44-0	
Total Organic Carbon	49000	mg/kg	10600	3170	1		03/02/22 11:02	7440-44-0	
Total Organic Carbon	51900	mg/kg	10300	3060	1		03/02/22 11:08	7440-44-0	
Total Organic Carbon	53700	mg/kg	10100	3020	1		03/02/22 11:13	7440-44-0	
Mean Total Organic Carbon	50800	mg/kg	10300	3080	1		03/02/22 10:57	7440-44-0	M0,R1
Surrogates									
RSD%	4.8	%			1		03/02/22 10:57		

## REPORT OF LABORATORY ANALYSIS

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Double trouble: Wisconsin's land and water are inundated with pollution from animal manure and excess farm fertilizer



[www.ewg.org/research/double-trouble-wisconsins-land-and-water-are-inundated-pollution-animal-manure-and-excess](http://www.ewg.org/research/double-trouble-wisconsins-land-and-water-are-inundated-pollution-animal-manure-and-excess)

# Double trouble: Wisconsin's land and water are inundated with pollution from animal manure and excess farm fertilizer

**Table 1. Nitrogen balance from manure plus commercial fertilizer in nine Wisconsin counties.**

County	Percent N recommendation met by manure applied	Percent N recommendation met by fertilizer sold	Percent N recommendation met by manure and fertilizer combined	Tons of N overload
Adams	11%	144%	156%	3,026
Dane	33%	93%	126%	4,207
Green	19%	106%	125%	2,010
Juneau	19%	110%	129%	1,135
Kewaunee	98%	99%	196%	4,068
Lafayette	21%	90%	111%	1,167
Portage	11%	176%	187%	8,000
Rock	7%	93%	100%	31
Wood	33%	130%	163%	2,108

**Table 2. Phosphorus balance from manure plus commercial fertilizer in nine Wisconsin counties.**

County	Percent P205 removal met by manure applied	Percent P205 removal met by fertilizer sold	Percent P205 removal met by manure and fertilizer combined	Tons of P205 overload
Adams	25%	106%	131%	671
Dane	48%	42%	90%	-1,055
Green	28%	44%	72%	-1,619
Juneau	33%	53%	86%	-321
Kewaunee	123%	41%	164%	1,898
Lafayette	39%	41%	80%	-1,448
Portage	22%	105%	127%	1,230
Rock	13%	42%	55%	-3,843
Wood	47%	47%	94%	-155

[www.ewg.org/research/double-trouble-wisconsins-land-and-water-are-inundated-pollution-animal-manure-and-excess](http://www.ewg.org/research/double-trouble-wisconsins-land-and-water-are-inundated-pollution-animal-manure-and-excess)





# Wisconsin Groundwater Coordinating Council Report to the Legislature: Executive Summary Fiscal Year 2022

- **PURPOSE OF THE GCC AND ANNUAL REPORT**

In 1984, the Legislature enacted Wisconsin's Comprehensive Groundwater Protection Act, to improve the management of the state's groundwater

- **CONDITION OF THE RESOURCE: GROUNDWATER QUALITY**

- Major groundwater quality concerns in Wisconsin are summarized below and detailed in the online report. Nitrate While nitrate in agricultural use has benefits such as larger crop yields, high concentrations in groundwater lead to public health concerns. Nitrate is Wisconsin's most widespread groundwater contaminant and is increasing in extent and severity. Statewide various studies show about 10% of private well samples exceed the 10 milligrams per liter (mg/L) health-based standard for nitrate-N. Nitrate levels in groundwater above 2 mg/L indicate a source of contamination such as agricultural or turf fertilizers, animal waste, septic systems and wastewater. **Approximately 90% of total nitrate inputs into our groundwater originate from agricultural sources.**

[dnr.wisconsin.gov/sites/default/files/topic/Groundwater/GCC/ExecutiveSummary.pdf](http://dnr.wisconsin.gov/sites/default/files/topic/Groundwater/GCC/ExecutiveSummary.pdf)

- **Wisconsin Groundwater Coordinating Council Fiscal Year 2011  
REPORT TO THE LEGISLATURE**

- **At least 90% of nitrate inputs into our groundwater originate from manure spreading, agricultural fertilizers, and legume cropping systems (Shaw, 1994).**

[widnr.widen.net/content/xtvx04fbz3/pdf/DG\\_GCC\\_Report\\_2011.pdf?u=kfkpym](http://widnr.widen.net/content/xtvx04fbz3/pdf/DG_GCC_Report_2011.pdf?u=kfkpym)

**DNR scraps clean water effort,** BY: **Ruth Conniff** - November 18, 2021

[wisconsinexaminer.com/brief/dnr-scraps-clean-water-effort/](http://wisconsinexaminer.com/brief/dnr-scraps-clean-water-effort/)

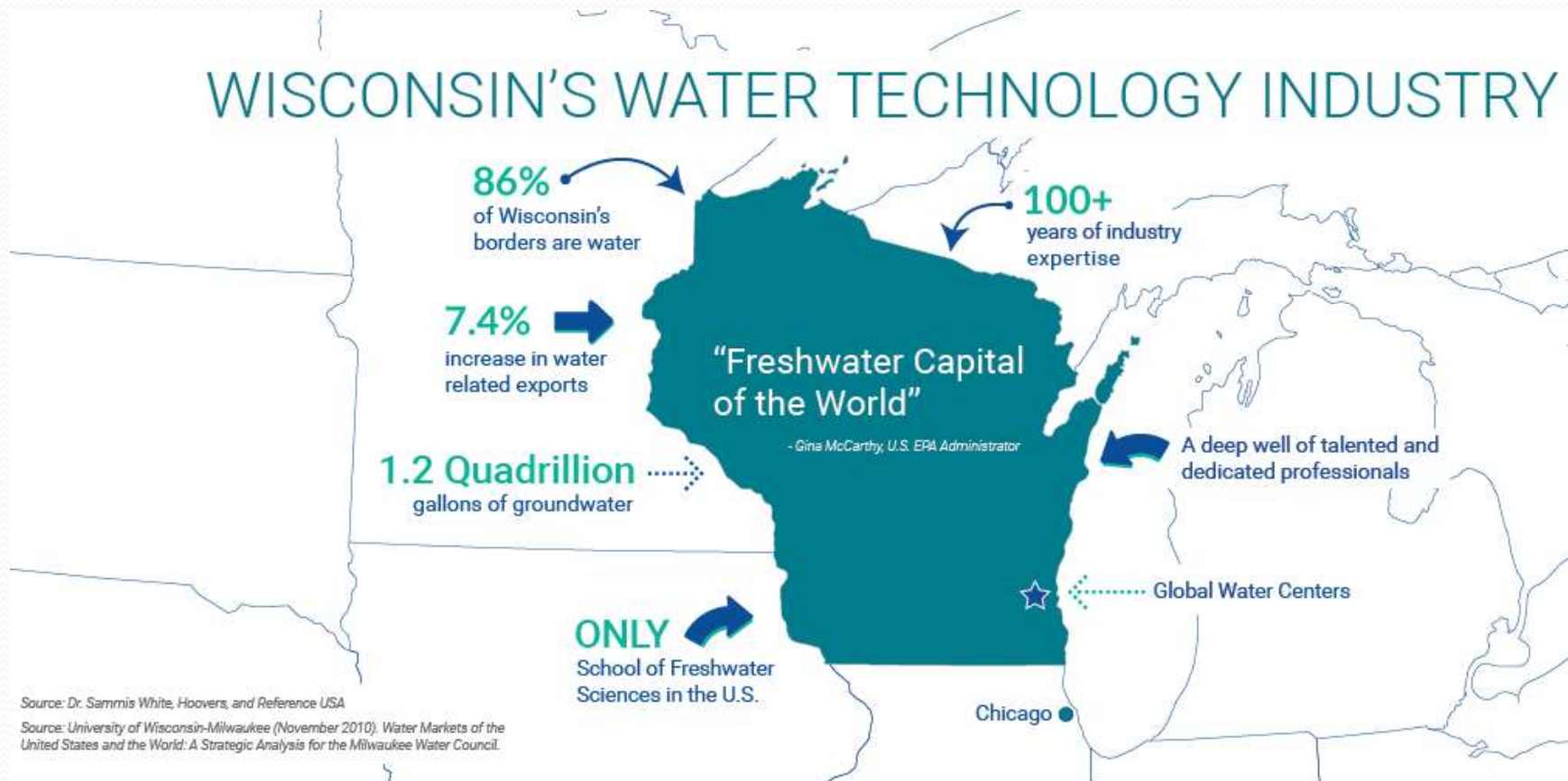


# Fact Sheet

- 1994, Phosphates removed from laundry detergents.
- 2010, Phosphates removed from dish detergents.
- 2010, Phosphate fertilizer removed from lawns , golf courses and publically owned land, only allowed in new lawns via starter fertilizer. Wis. Stat. 94.643
- Rome farm and timber land that resulted in legacy fertilizer in the area prior to the lakes .
- Wisconsin TMDL and other studies determined that 70% - 90% of phosphates and nitrates originate with agriculture.



# The Water Council





# EOR

## **Emmons & Olivier Resources, Inc.**

- Water resources engineering, watershed planning, and modeling
- Environmental compliance, biological surveying, and restoration
- Sustainable site design, planning, and landscape architecture
- EOR advances the integrated design, management, & planning of water and natural resources.
- [www.eorinc.com](http://www.eorinc.com)



# Solitude Lake Management



# Solitude Lake Management

## **Featured by National Geographic**

Aluminum sulfate, or alum, is increasingly being used to fight algae blooms spurred by an overabundance of phosphorus from human activity.

[www.solitudelakemanagement.com](http://www.solitudelakemanagement.com)





# Solitude Lake Management

Spring Lake, MN Spring Lake is 600 acres in size, located in central Minnesota near the town of Prior Lake. In 2011 the Prior Lake-Spring Lake Watershed District completed a Total Maximum Daily Load (TMDL) study and determined Spring Lake was impaired/threatened by an excess of phosphorus. With support from Barr Engineering, the watershed district contracted with HAB Aquatic Solutions to apply the first of dose of 292,000 gallons of liquid aluminum sulfate in 11 days in the fall of 2013. Prior to the aluminum sulfate treatment Barr recorded 220 µg/L phosphorus and 45 µg/L chlorophyll a (algae density). Following the alum treatment Barr Engineering measured 59 µg/L phosphorus and 4 µg/L chlorophyll a. In May of 2018, HAB applied the second of three planned doses to Spring Lake. This second dose of 146,189 gallons of alum (25% of the total planned dose) was completed in 6 days and studies to document improved water quality are currently ongoing.





# EVERBLUE Lakes

- Are Algae Blooms a problem at your lake?
- Chemicals Are Not The Answer . . .
- It's your lake, your choice and your legacy. Choose Natural over Chemical. Choose EverBlue Lakes for a clean, clear, naturally healthy lake today and for generations to come.
- Everblue handles 30 Lakes in Michigan and utilizes Aquom technology





# AquOm

- **Freshwater**
- AquOm Water Geo-Bio solutions are all-natural, easy to use, fast acting, and cost effective solutions that bond to nitrogen, ammonia, and phosphorous in freshwater lakes, ponds and canals.
- **Agriculture**
- AquOm Water products are used to clean and remove nitrogen, phosphor and ammonia from irrigation ponds and canals
- >95% Nutrient Reduction

# Proposed Rehabilitation Companies

2022 Projects		Purpose	Cost	DNR	Tri-Lakes Costs	Notes
Lake Restoration		Apply Algaecide	\$ 33,000	\$ -	\$ 33,000	Mizzen Treatment, Approximately 100 acres
Solitude Lake Management		Phosphate entrapment Sherwood, Alum treatment	\$ 197,000	\$ -	\$ 197,000	216 Acres
Lake Restoration		Piping and pumps for stagnant waters	?	?	?	Acreation study
Lake Restoration		Application of weed control agent	?	?	?	Weed Control
EVERBLUE Lakes		Total Lake Care	?	?	?	
Upstream Suggestions	Grant initiator	Purpose	Cost	DNR Cost @ 25%	Agriculture Costs @ 25%	Notes
Water Warriors	DNR	Upstream Phosphate entrapment	\$ 1,300,000	\$ 975,000	\$ 325,000	Initial USDA P-Trap and Initial Poseidon Pellet @ 130,000 per field times 10 fields
Phosloc	DNR	Upstream Phosphate entrapment	?	?	\$ -	Reduce Phosphates
Pearl	DNR	Upstream Phosphate entrapment	?	?	\$ -	Reduce Phosphates
2023 Grant Requests	Grant initiator	Purpose	Cost	DNR	Tri-Lakes Costs	Notes
Solitude Lake Management	DNR	Phosphate entrapment Upper Camelot, Alum Treatment	\$ 153,000	\$ 114,750	\$ 38,250	393 Acres
Solitude Lake Management	DNR	Phosphate entrapment Arrowhead, Alum Treatment	\$ 263,000	\$ 197,250	\$ 65,750	295 Acres
Solitude Lake Management	DNR	Phosphate entrapment Lower Camelot, Alum Treatment	\$ 235,000	\$ 176,250	\$ 58,750	393 Acres



# 2021 Actual

**TRI-LAKES MANAGEMENT DISTRICT**  
**STATEMENT OF REVENUE, EXPENDITURES AND CHANGES IN FUND BALANCES**  
**GOVERNMENTAL FUND**  
**YEAR ENDED DECEMBER 31, 2021**

	<u>GENERAL FUND</u>
<b>REVENUE</b>	
Taxes	\$ 91,300
Special charges	228,135
Intergovernmental	30
Public charges for services	23,200
Dam maintenance contract	10,000
Interest	3,436
Miscellaneous	<u>2,155</u>
<b>TOTAL REVENUE</b>	<u>358,256</u>
<b>EXPENDITURES</b>	
<b>Lake Management</b>	
Harvester wages and related expense	206,453
Harvester operation	88,289
Dam wages and related expense	12,156
Dam operation	222
Lake maintenance	29,263
Clean boats program	2,345
Building repair and maintenance	2,751
Insurance	29,998
Fish stocking	3,000
14 Miles	21,749
Miscellaneous	<u>875</u>
<b>Total Lake Management</b>	<u>397,101</u>

<b>Administration</b>	
Office expense	9,012
Office equipment replacement	367
Insurance	2,460
Office wages and related expense	24,813
Sanitary district operations	2,324
Commissioners	7,812
Utilities	5,368
Professional fees	15,203
Website	17
Real estate	<u>77</u>
<b>Total Administration</b>	<u>67,453</u>
<b>TOTAL EXPENDITURES</b>	<u>464,554</u>

**DEFICIENCY OF REVENUE OVER EXPENDITURES** (106,298)

**OTHER FINANCING SOURCES (USES)**

Sale of capital assets	<u>500</u>
<b>NET CHANGE IN FUND BALANCE</b>	(105,798)
<b>FUND BALANCE AT BEGINNING OF YEAR</b>	<u>525,374</u>
<b>FUND BALANCE AT END OF YEAR</b>	<u>\$ 419,576</u>

# 2022 Year to Date

	2022 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug		Budget	Over (Under)	% to Date
<b>Cash In</b>												
Property Taxes Collected	\$0	\$31,962	\$31,787	\$1,705	\$0	\$0	\$0	\$0	\$65,454	\$91,050	(\$25,596)	72%
Special Charges Collected	\$0	\$164,592	\$184,680	\$0	\$0	\$0	\$0	\$0	\$349,272	\$369,370	(\$20,098)	95%
Interest	\$0	\$192	\$232	\$264	\$92	\$83	\$261	\$0	\$1,124	\$4,000	(\$2,876)	28%
Transfer From Fund Balance	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$50,000	(\$50,000)	
Grants	\$0	\$0	\$3,353	\$3,000	\$3,874	\$11,444	\$0	\$0	\$21,671	\$107,170	(\$85,499)	20%
Dam Income	\$0	\$0	\$0	(\$2,500)	\$5,000	\$482	\$0	\$0	\$2,982	\$10,400	(\$7,418)	29%
Delinquent Taxes Paid	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0%
Other Inflows	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Other Inflows	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
<b>Total In</b>	\$0	\$196,746	\$220,052	\$2,469	\$8,966	\$12,009	\$261	\$0	\$440,503	\$631,990	(\$191,487)	70%
<b>Cash Out</b>												
Payroll and Deductions	\$0	\$0	\$0	\$10,047	\$11,387	\$25,646	\$32,506	\$0	\$79,586	\$218,000	(\$138,414)	37%
Harvestor Operations	\$0	\$15,189	\$106	\$4,277	\$5,436	\$4,247	\$10,690	\$0	\$39,945	\$57,000	(\$17,055)	70%
Lake maintenance	\$0	\$7,881	\$0	\$6,941	\$339	\$20,955	\$12,612	\$0	\$48,728	\$100,000	(\$51,272)	49%
14 Mile	\$1,437	\$1,387	\$240	\$613	\$150	\$1,474	\$2,045	\$0	\$7,346	\$29,840	(\$22,494)	25%
Clean Boats	\$0	\$0	\$0	\$0	\$0	\$2,962	\$3,004	\$0	\$5,966	\$3,500	\$2,466	170%
Equipment Replacement	\$0	\$0	\$0	\$0	\$17	\$0	\$0	\$0	\$17	\$61,500	(\$61,483)	0%
Building Repair and Maintenance	\$446	\$373	\$0	\$776	\$35	\$63	\$316	\$0	\$2,009	\$4,100	(\$2,091)	49%
Insurance	\$0	\$0	\$0	\$18,847	\$13,454	\$0	\$0	\$0	\$32,301	\$34,000	(\$1,699)	95%
Long Range Capital Fund (xxx)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$20,000	(\$20,000)	
Fish Stocking	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,000	(\$3,000)	
Misc	\$882	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$882		\$882	
Dam Operation	\$0	\$0	\$0	\$0	\$1,200	\$0	\$2,657	\$0	\$3,857	\$10,000	(\$6,143)	39%
2019 Per Parcel Credit	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Office Expense	\$39	\$204	\$327	\$1,047	\$1,833	\$155	\$263	\$0	\$3,868	\$8,300	(\$4,432)	47%
Office Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$500	(\$500)	
Insurance	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,000	(\$3,000)	
Office Payroll and Deductions	\$1,903	\$2,402	\$1,978	\$1,978	\$2,584	\$2,579	\$2,829	\$0	\$16,253	\$30,000	(\$13,747)	54%
Commissioners Expense	\$75	\$118	\$71	\$421	\$0	\$3,086	\$442	\$0	\$4,213	\$9,000	(\$4,787)	47%
Utilities	\$351	\$313	\$264	\$1,347	\$204	\$244	\$137	\$0	\$2,860	\$6,000	(\$3,140)	48%
Professional Fees (xxx)	\$0	\$8,551	\$0	\$500	\$0	\$0	\$0	\$0	\$9,051	\$30,000	(\$20,949)	30%
Sanitary District	\$0	\$0	\$0	\$0	\$198	\$16	\$0	\$0	\$214	\$3,000	(\$2,786)	7%
Bad Debt Write off	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$500	(\$500)	0%
Website	\$17	\$0	\$0	\$0	\$0	\$0	\$1,934	\$0	\$1,951	\$750	\$1,201	260%
2019 Levy Credit				\$0	\$0	\$1	\$2	\$0	\$3	\$0	\$3	#DIV/0!
Reserve Allocations								\$0	\$0		\$0	
<b>Total Out</b>	\$5,150	\$36,418	\$2,986	\$46,794	\$36,837	\$61,428	\$69,437	\$0	\$259,050	\$631,990	(\$372,940)	41%
<b>Net</b>	(\$5,150)	\$160,328	\$217,066	(\$44,325)	(\$27,871)	(\$49,419)	(\$69,176)	\$0	\$181,453	\$0	(\$181,453)	



# 2022 Projected Final

## Projected Year End vs. Budget 2022

2022	Projected	Budget	Over (Under)	% to
Cash In	YE 2022			
Property Taxes Collected	\$91,050	\$91,050	\$0	100%
Special Charges Collected	\$369,370	\$369,370	\$0	100%
Interest	\$2,596	\$4,000	(\$1,404)	65%
Transfer From Fund Balance	\$36,174	\$50,000	(\$13,826)	72%
Grants	\$21,671	\$107,170	(\$85,499)	20%
Dam Income and Fuel Refund	\$10,400	\$10,400	\$0	100%
Delinquent Taxes Paid	\$0	\$0	\$0	0%
Total In	\$531,261	\$631,990	(\$100,729)	84%
Cash Out				
Payroll and Deductions	\$202,944	\$218,000	(\$15,056)	93%
Harvestor Operations	\$59,945	\$57,000	\$2,945	105%
Lake maintenance	\$67,728	\$100,000	(\$32,272)	68%
14 Mile	\$7,346	\$29,840	(\$22,494)	25%
Clean Boats	\$8,966	\$3,500	\$5,466	256%
Equipment Replacement	\$30,017	\$61,500	(\$31,483)	49%
Building Repair and Maintenance	\$4,009	\$4,100	(\$91)	98%
Insurance	\$33,801	\$34,000	(\$199)	99%
Long Range Capital Fund (xxx)	\$0	\$20,000	(\$20,000)	
Fish Stocking	\$3,000	\$3,000	\$0	100%
Misc	\$882		\$882	
Dam Operation	\$10,000	\$10,000	\$0	100%
2019 Per Parcel Credit	\$0	\$0	\$0	
Office Expense	\$7,868	\$8,300	(\$432)	95%
Office Equipment	\$0	\$500	(\$500)	
Insurance	\$0	\$3,000	(\$3,000)	
Office Payroll and Deductions	\$29,253	\$30,000	(\$747)	98%
Commissioners Expense	\$8,913	\$9,000	(\$87)	99%
Utilities	\$6,860	\$6,000	\$860	114%
Professional Fees (xxx)	\$25,051	\$30,000	(\$4,949)	84%
Sanitary District	\$2,914	\$3,000	(\$86)	97%
Bad Debt Write off	\$500	\$500	\$0	0%
Website	\$2,351	\$750	\$1,601	313%
2019 Levy Credit	\$3	\$0	\$3	#DIV/0!
Reserve Allocations	\$0		\$0	
Total Out	\$512,351	\$631,990	(\$119,639)	81%

# 2022 Capital Reserve Account

2022	Year	Orig	Expctd	Years	Replacement	Capital	Addition to
ITEM	Acqrd	Cost	Life	Remaining	Cost Less residual	Fund 2022	LR Capital Fund
<b>Harvesting Dept:</b>							
Inland Harvester #1	1997	91,550	50	25	\$ 150,750	\$ 3,015	
Aquarius/Inland Harvester #2	2012	157,240	50	40	\$ 150,750	\$ 3,015	
Inland Harvester #3	1995	87,650	50	23	\$ 150,750	\$ 3,015	
Inland Trailer	2000	6,950	50	28	\$ 16,017	\$ 320	
Inland Trailer	2001	7,794	50	29	\$ 16,017	\$ 320	
Inland Harvester #4	1995	87,650	50	23	\$ 150,750	\$ 3,015	
Inland Trailer	1997	12,305	50	25	\$ 16,017	\$ 320	
Inland Trailer	2001	7,794	50	29	\$ 16,017	\$ 320	
Inland Harvester #5	2020	175,751	50	48	\$ 16,017	\$ 320	
Inland Trailer	2020	16,017	50	48	\$ 16,017	\$ 320	
Inland Harvester #6	2010	131,870	50	38	\$ 150,750	\$ 3,015	
Inland Trailer	2010	16,985	50	38	\$ 16,017	\$ 320	
Inland Harvester #7	2018	135,675	50	46	\$ 150,750	\$ 3,015	
Inland Trailer	2018	9,800	50	46	\$ 16,017	\$ 320	
2020 Ram 350 Diesel Trk	2019	41,080	10	7	\$ 37,080	\$ 3,708	
2018 Chevy Silverado	2018	26,135	10	6	\$ 27,000	\$ 2,700	
2009 Ford F350	2008	28,738	10	0	\$ 21,291	\$ 2,129	
Radio system	2019	4,111	10	7	\$ 4,200	\$ 420	
<b>Office Equipment</b>							
Lenovo M78 Computer	2019	1,500	5	2	\$ 1,500	\$ 300	
HP Laptop	2018	600	5	1	\$ 600	\$ 120	
Computer	2018	750	5	1	\$ 600	\$ 120	
HP Envy 4500 printer	2013	79	5	0	\$ 100	\$ 20	
Brother Office Copier	2017	750	5	0	\$ 649	\$ 130	
Emmons Off Furniture	2002	2,721	12	0	\$ 3,000	\$ 250	
<b>Building:</b>							
Meeting room/office	1987	126,498	40	5	\$ 200,000	\$ 5,000	
Sound system	2000	4,633	20	0	\$ 5,000	\$ 250	
Well	2007	6,600	20	5	\$ 8,000	\$ 400	
Add'l bay on building	2016	92,610	40	34	\$ 100,000	\$ 2,500	
Office furnace & Modine	2014	4,800	12	4	\$ 6,000	\$ 500	
Heated Maint. Area	2014	13,539	20	12	\$ 15,000	\$ 750	
Digital Security System	2014	1,517	10	2	\$ 2,000	\$ 200	
<b>Water Testing Equip:</b>							
Hydrolab equipment	2000	3,060	20	0	\$ 4,000	\$ 200	
Carolina Skiff boat	1995	2,205	40	13	\$ 12,545	\$ 314	
Shoreland'r Trailer	1995	745	40	13	\$ 1,000	\$ 25	
Mercury Outbd - 60 hp	2016	6,500	25	19	\$ 7,000	\$ 280	
Capital Fund Allowance						\$ 40,968	
Reduce to \$0,000, application from Fund Balance						\$ -	
Addition to LR Capital Fund							\$ -



# 2023 Proposed Budget

	2021	2022	2023
Total Properties	4869	4811	4771
Total Assessed Valuation	\$509,816,100	\$514,312,000	\$ 521,589,700
Property Taxes	\$0.0001791	\$0.0001770	\$0.0001753
Special Charges	\$44.69	\$76.78	\$75.93
	2021	2022	2023
	BUDGET	BUDGET	Preliminary
Revenue:			
Property Taxes	91,300	91,050	91,435
Special Charges	217,600	369,370	362,284
Grant	19,000	107,170	615,999
Interest	1,000	4,000	3,000
Other -Fuel & Refunds-Dam Op	10,400	10,400	10,000
Transfer from fund balance	188,000	50,000	270,000
Loan			
Sale of harvester			
Total Revenue	527,300	631,990	1,352,718
Expenditures:			
Lake management:			
Harvester salaries & related expenses	200,000	218,000	224,831
Harvester operation	87,000	57,000	82,288
Lake maintenance	10,000	100,000	886,999
14 Mile Watershed	35,000	29,840	
Equipment replacement	20,000	61,500	-
Building repair & maintenance	3,000	4,100	8,165
Insurance	32,000	34,000	30,000
Long range capital fund	20,000	20,000	-
Clean Boats Program	16,000	3,500	16,000
Payments on harvester loan/storage			
Dam Operation	10,000	10,000	10,000
Fish Habitat Improvement	3,000	3,000	3,000
2019 Per parcel credit			
Total lake management	436,000	540,940	1,261,283
Administrative:			
Office expense	8,300	8,300	8,500
Office equipment	1000	500	500
Insurance	3,000	3,000	3,000
Website	500	750	735
Office salaries & related benefits	30,000	30,000	32,500
Sanitary District	3,000	3,000	2,500
Commissioners expenses	9,000	9,000	7,200
Utilities	6,000	6,000	6,000
Professional fees	30,000	30,000	30,000
Bad Debt Expense	500	500	500
2019 Levy Credit			
Total administrative	91,300	91,050	91,435
Total expenditures	527,300	631,990	1,352,718
Excess of revenues over expenditures	0	0	0
Comparison of tax impact -- based on \$200,000 assessed value:			
	Mill Rate	Special Charges	Total
2021	\$35.82	\$44.69	\$80.51
2022	\$35.41	\$76.78	\$112.18
2023	\$35.06	\$75.93	\$110.99