TOWN OF NORWAY SANITARY DISTRICT #1

6419 Heg Park Road, Wind Lake, WI 53185
Phone: Office 262-895-6400 Plant 262-895-2400 Fax 262-895-2480

Chloride Progress Report

The Town of Norway Sanitary District is a single purpose municipality that serves the wastewater needs of the Wind Lake area of the Town of Norway in Racine County and the area around Lake Denoon in the City of Muskego in Waukesha County. The facilities average design daily flow is calculated at 1.6 million gallons per day. In the last 12 years, we had an actual average daily flow of 913,500 gallons per day. Within the district there are no industrial dischargers. This is primarily a bedroom community with 2 restaurants, 2 taverns, 6 sports bars that serve some food, and probably the largest discharger being a car wash. There is also an elementary and a middle school served by the sanitary district. Since the last report 2 sports bars have closed, the bakery has gone out of business and the Laundromat has been torn down. There is no hauled in waste accepted by the district at this time. The effluent of the facility flows into the Waubeesee Lake drainage canal, which joins the Wind Lake drainage canal, and finally empties into the Fox River (Illinois). During the drier months of some years there is no flow from Lake Waubeesee so we supply 100% of the drainage canal flow during these times.

There is no public water system in any of the areas served by our facility. Everyone has a private well. Due to the hardness of the water, virtually all the customers have water softeners. Most of these softeners, when regenerating, discharge directly into the sanitary sewer system. This causes very high levels of chloride in our effluent waters. In our discharge permit for the year 2001, our frequency of testing for chloride was increased from quarterly to monthly. In November of 2005, at the request of Jackie Fratrick of the Wisconsin Department of Natural Resources, we started sampling 4 times monthly on consecutive days and we have continued that practice to the present time. Once again, due to the fact we have no industrial dischargers or other significant dischargers of chloride, the results are very even unless we have significant rain during the testing period to dilute the samples.

The District has continued with its public education program since 2001. We continue to encourage the public to maintain their water softeners and limit the use of salt for the melting of winter snow and ice. I have included the annual reports from 2006 thru 2008 and the articles that have been published in the Norway News in the years since 2008 that have pertained to our chloride situation. When building permits are issued for new homes they also receive a letter from the District informing them of the high levels of iron in the ground water and that they will need an efficient water softener in their new home. Due to the economic conditions there have not been many new homes constructed in the last few years.

Looking at the "Yearly Chloride Totals" we see that the pounds of chloride on the days that we have tested have been decreasing ever since 2008. Is this an indication that our efforts have been successful? The concentrations have been going up over the same period. There isn't a clear cut indication either way. I have noticed that at dry times when the flows are low that we don't have as high of concentrations as we did at the beginning of the study. To me, this is the best indication that there has been some reduction. During the last half of 2012 when southeast Wisconsin was in severe drought conditions and we had record low flows for all months except November, we saw some very high concentrations but we were not surprised by this.

The entire district is built around 4 lakes for the purpose of protecting these lakes. The sewers around these lakes and in other areas are laid in the ground water so infiltration is always a problem. We have been actively working on finding these leaks. The East Wind Lake Road area had been a problem during rainfalls and when the lake level rose and filled the ditches along the road. Run times at the downstream lift station would increase dramatically. In January of 2008 we lined 1700 feet of the 15 main in this area and had excellent results. Previously the ditches would dry up in few weeks; now they stay full of water for months. Late in 2010 we were televising farther north near the intersection of county "G" and county "S". We could not get the camera through but we couldn't see anything either. We decided to dig up the pipe and found that when the sewer was constructed they installed telephone poles vertically under the pipe like a makeshift pier to support the pipe. The pipe sagged and the pole pushed through the pipe causing a large hole in the main. We replaced 60 feet of pipe and supported it with a helical pier system with pipe being supported by an I-beam between the piers. The largest find was in December of 2011 on Sadler and Thompson Drives where we re-laid and lined pipe that flows to lift station #4. The run times at the lift station dropped from an average of 6.1 hours per day in 2011 to 1.6 hours per day in 2012. Looking back at 2003, which was our lowest flow year before 2012, the average run time at lift station #4 was 4.1 hours per day. Calculate the pumping rate versus the change in run times; we estimate a reduction of 40,000 gallons per day of ground water we are no longer treating. Because of this work and having some homeowners repair their leaking laterals, we expected the concentration of chloride to rise in the effluent because of the reduction in dilution from ground water.

We are doing everything we can to reduce the chloride levels in our effluent. After 13 years it is difficult to come up with new ways to encourage the residents to maintain their water softeners, but we try. As the older cottages around the lake are replaced with new, year around homes with new softeners we hope that the chloride levels will decrease more. Until some kind of new technology comes along to soften water without the use of salt I see very little hope that we can lower the chloride levels to an acceptable range that the enforcement departments are looking for. The hardness of the ground water in this area makes softening a necessity. We by-pass the softener at our facility when we fill our sewer cleaning machine. If the valves are not returned to normal, you will see the yellow water and staining in the toilets very quickly. I don't feel that removing the softeners would be an option for most home owners.

TOWN OF NORWAY SANITARY DISTRICT # 1

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ANNUAL CHLORIDE PROGRESS REPORT

2006

The weather in Southeast Wisconsin had a very large impact on the chloride results we obtained in the year 2006. The last three months of 2005 were fairly typical in small amounts of precipitation and high chloride concentrations. January was unusually warm with over 3 inches of precipitation, which brought the chloride concentrations down, and this was the pattern for the rest of the year except for February. February was our driest month but the rain and snow we did get came during the 4 days we were sampling which caused an increase in flow and a flush of chloride probably due to the road salt being washed into the system. All the other months have had between 4 and 5 ½ inches of rain that have kept flows fairly steady but much higher than normal and just starting to drop in August but is still above normal for us. This caused the average concentration of chloride to drop significantly but when looking at the pounds put out it is very close to last year. In last years report I stated that the February data was an outlier and if removed it would be very similar to this year in pounds.

At the suggestion of Jackie Fratrick, we started sampling 4 times a month on consecutive days beginning in the month of November. Looking at the data sheets attached you will notice that the flows and the strengths have (Ave.) after them as I have averaged the results from the days we tested. Overall this didn't seem to have much of an effect on the concentrations as most of the results were very similar. The exception to this was in December when we tried sampling for an entire week starting on the first. We had 2 snow events during this week and the results bounced, I feel, because of this. A disadvantage to doing this occurred in September of 2006 when we received an unexpected 2.93 inches of rainfall during the days we were testing. The flows for the first two days were 760,000 gallons each, while the second two days were 1.8 million and 1.7 million gallons respectively. The chloride concentration for the first three days were between 530 and 560 mg/L. and dropped of to 260 mg/L. on the last day. This caused the pounds, when calculated using the averages, to leap over 5,100 pounds. Normally we wouldn't be testing during a time of this great a change in flow and corresponding change in the chloride concentration.

District Manager P.J. Nolan attended a chloride seminar and the offices of Ruekert-Mielke in Waukesha. Tom Steinbach of Oconomowoc gave a very interesting report and he highly suspects, as do we, that the salting of roads for ice control is a large contributor to the chloride situation. It was interesting that he had spikes of chloride at the same time we experienced them in Wind Lake. We will have to take better note of these events in the future to document their effects on our tests.

The District is continuing to write articles for the local newsletter that bring up the chloride issue. It is however, difficult to come up on new spins to make it interesting to the public so that they will read through the articles. We continue to include the letter on water quality and the need for an efficient softener whenever someone comes in for their permit to connect to the collection system. Copies of these articles are attached to the report.

We always try to find new places to find the chloride. We had our sludge tested for chloride and the result was that not a lot goes out with the sludge. Result sheet is attached to the back.

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ANNUAL CHLORIDE PROGRESS REPORT

2007

September 27, 2007

The persistent rains continued in the fourth quarter of 2006 which drove our chloride concentrations down into the 400 mg/L. range and as low as 317 mg/L. in December. The constant precipitation continued through 2007 so far except in February and early August. The additional flows kept the pounds calculations up around normal even though we have not crossed the 680 mg/L. threshold. Overall, the chloride concentrations have bounced all over the place.

We have continued to test 4 days per month in spite of the fact that we are only required to do so once per month. Little seems to be gained by doing this as the month number remain constant except one month where significant rains fell during the days we sampled and flows to the plant increased and drove the chloride concentrations down. We have tried collecting 4 samples and doing so every other day in the same week. This too showed very little fluctuations in the results. Because there is no industrial loading of chloride here and the major source of the chloride is private homes with water softeners we see no spikes in the test results and drops when we experience moderate to large rain events.

We continue to try to keep the public thinking about the chloride situation in our district. Copies of the articles that I have submitted to *The Norway News* have been included in the report. Letters regarding chloride are still given to residents who take out building permits so they are aware when doing their plumbing of the things they can do to help in our battle to lower the amount of chloride discharged to our waterways.

As always, I have included the calculation of pounds of chloride on the days the samples were taken and using the monthly flow total to calculate a monthly total. Samples for August of 2007 were taken at the very beginning of the month when it was still fairly dry. Later in the month we experienced unusually heavy rains totaling almost 13 inches. This severely skewed the monthly numbers in this report so they were deleted from the totals. I have included copies of our rainfall records for 2006 and for thus far in 2007 to show the rainfall totals that have caused the drop in our monthly chloride concentration averages.

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ANNUAL CHLORIDE PROGRESS REPORT

2008

The weather and road salt were once again the driving factor in the chloride results that we obtained. Normal precipitation in the fall gave us the normally low poundage with slightly higher concentrations. The roller coaster began with higher than normal rains and snow in December then a warm up into the 70-degree range with devastating tornadoes to our south. This melted all of our snow driving up flows, which carried the road salt with it. Early February brought more snow and the use of more salt. Some communities used so much salt that they were running out but that was not the case in Norway. We had plenty and used it. High pounds of chloride were found all the way through April. June's daily flow result was normal as the tests were run before huge rains and flooding occurred driving plant flows to double their normal levels. July's poundage was up slightly possibly due the chlorides being washed off the roadsides in the floodwater. August and September's relatively dry weather brought our first exceedence of the 680-mg/L. limit since October of 2005.

In December and February of this reporting period we tested on three consecutive days and in November of 2007 we tested on the odd numbered days of 1 week. All the other months were tested using results from four consecutive days. There is very little change in the results except if significant rain falls during these days.

In my articles in the *Norway News* I still try to work the chloride situation in but it is increasingly difficult without being redundant and boring. It does no good to write the article if no one reads them. I have included these articles in this report but mostly I had to cover the high flow issues and reassure the residents that we had no overflows. We still include chloride information with building permits but with the economic situation and the fact that the district is almost completely built out, there aren't many additions in the district.

As always, I have included the calculation of pounds of chloride on the days the samples were taken and using the monthly flow total to calculate a monthly total. I also included a report with data going back to 2001 with annual averages to make it easier to see the results through the years.

TOWN OF NORWAY SANITARY DISTRICT #1

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August 2009

Pat Yourself on the Back!

Congratulations to all of those in the Sanitary District for your efforts to reduce the chloride being discharged from our treatment facility. With the dry weather we have been experiencing the chloride numbers would have gone through the roof in the past. This last July with flows below 750,000 gallons per day the discharge was only 562 milligrams per liter (mg/L.) where in past years we would be in the 700's. As you remember the DNR has given us a limit of 680 mg/L. This by no means indicates that our work is done as the state wide limit is 390 mg/L. We have shown improvement but there is more that can be done and those numbers can still be lower.

And speaking of low, we have results from some of our low level mercury testing. If you read the last issue of the *Norway News,* I explained how these tests were done in reading to parts per trillion (p.p.t.) and what that was. For you martini drinkers it's 1 drop of vermouth in 500,000 barrels of gin. That's one dry martini! Over 8 tests we are averaging 1.38 p.p.t. even though the first test was 3.21 p.p.t. We believe we accidently contaminated that first sample as the highest result of the last 4 tests was 1.04 p.p.t. Hopefully we can demonstrate that we only have natural background levels and we won't have to continue this very expensive testing.

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May 2011

How Are Things?

Pretty Darn Good!

As we here at The Norway Sanitary District look in the rear view mirror at this last winter and through the wind shield at the summer ahead we notice that the road has been very smooth. The process and equipment operated very well through the long, cold winter, even when the ground hog dumped 20 inches of snow on us. What a rascal! We did an emergency repair over at the corner of County S and County G. The project went well and is paying dividends this spring as even though we had precipitation in the rain gauge 20 of the 30 days of April; the pumps are running less than other years. There will be more projects this year to keep the ground water out.

The phosphorous situation has not gone away but it appears to be delayed for awhile. If you have a dog like I do, look at your lawn and you can see where he has been doing his business over the winter. You know, those bright green spots. Now think about the 6,000 people doing the same thing into our system. The amount of ammonia that passes through is so small that our lab can't measure it and the phosphorous is about 2 ½ pounds per day. That's pretty darn good.

The chloride numbers are also looking good. Back in 2005 our average chloride concentration leaving our facility was 648 parts per million (ppm). The discharge in 2010 averaged 485 ppm. That is still higher than what we want it to be and can be improved on but as I've been saying, that is pretty darn good.

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February 2012

2011 At a Glance

Another year has passed and it's hard to believe it's 2012. It seems not that long ago we were concerned about Y2K. A lot of work has been done on the collection system since that time but one of the problems is how to quantify the effects of the work. We know we have made an impact but how much? In 2011 we had 50 million gallons less through the treatment facility than the previous year which is good. But in 2003 we had 26.9 inches of precipitation (Rain and snow) and 66 million gallons less flow than 2011. Last year we had 34.5 inches which was 6 inches less than 2010. One inch of rain doesn't always have the same effect depending on when and how fast it comes, so you see why things aren't apples to apples.

There always seems to be a down side even to improvements and ours is the chloride levels. We surpassed our limit in September for the first time since September of 2008. The drier conditions and the removal of clear water cause the concentrations to rise with the lack of dilution. There are still some softeners out there that could do better and use less salt. Please try to find them. Try looking in your basement or utility room?

The project of relaying and supporting portions of the sewer mains on Sadler Drive and Thompson Drive were completed this January. I would like to thank the residents of this area for their patience and understanding while this work was being done. The workers commented how nice everyone was even when they had to wait while the roads were blocked. We have seen a significant drop in the pumping of all the lift stations that are affected by this area. We will continue our efforts to rid the District of holey sewers, which should not be confused with tailors and seamstresses who work on religious items. Those would be holy sewers (sew-ers).

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August 2012

Dry, Drier, Driest.

Everyone is well aware of the lack of precipitation this year. The District has closely monitored our flows ever since the upgrade of the facility in the year 2000. There is some question of the accuracy of the previous open channel flow meter so I am reluctant to use those numbers. May, June and July of this year had the lowest flows for those months. In April the flow was the second lowest and it looks like August will set another new low. The District rain gauge in which we measure both rain and snow added up to a total of 12.2 inches of precipitation for the first 6 months of 2012. I don't know if this is the driest but it has to be close.

The low flows are a good thing at the District as we use less electricity to move the water where we need it to go and it reduces the wear and tear on the equipment but there are some down sides too. We do not see the results of the major repairs we have done recently. There is less water flushing the pipes and sometimes odors can result from solids left in the pipes. Without the dilution of the additional water the concentration of chlorides rises. In June we snuck under the limit of 680 mg/L. with test results of 675 mg/L. However, in July we smashed the limit with results over 750 mg/L. and August doesn't look like it will be any better. Please check your softeners and do anything else you can think of to reduce the salt in the water you use. Every teaspoon helps.

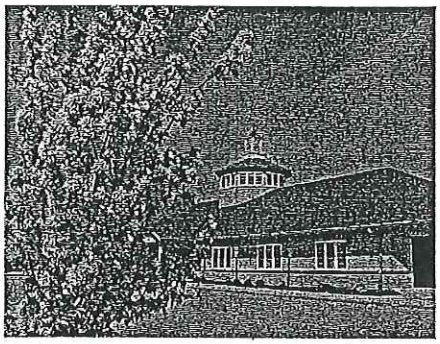
2006 at the Sanitary District *By P.J. Nolan, Plant Manager*

Another year is over and what a year it was. As most everyone realizes, it was a very wet year through out. We recorded 46.4 inches of precipitation and the average at Mitchell field is 31.8 inches per year. On June 18th we had our largest amount of rainfall at 2.98 inches, which isn't enough to cause us any problems. It seemed to rain often but in small amounts. This caused higher than normal flows through our treatment facility. One plus of all of this was that we didn't exceed our limit on chloride. The down side is when we calculate the result in pounds; we had just as much as we usually do so our job on chloride reduction is far from over.

Over the next year or so, we will be looking for the places in our system where the water is leaking in. These activities will include inspection of manholes (or are they person holes now?), smoke testing, and televising of mains. We are currently monitoring flows daily in the East Wind Lake Road area with temporary meters to gauge differences in flows.

Building Inspection Office

"Spruce" Up Norway - Town of Norway Beautification Award 2007 – Sponsored by the Park & Recreation Dept. Get started working on your landscaping! Prepare your lawn and flower beds for our 1st Annual Beautification Award. Get ready to "turn in your neighbor" with the best landscaping. Judges will award the top landscaped yard. Applications and rules available on the town website beginning May 1st. Deadline for applications and photos: July 31. Landscaping firms and businesses interested in participating through sponsorship and judging, please



call. Watch for more information in the Summer Newsletter.

Dave Hendrix, Building Inspector
895-2732 www.tn.norway.wi.gov

Muskego/Norway Performing Arts Center News

All performances at the Performing Arts Center (PAC) at Muskego High School are open to the general public and many shows have FREE ADMISSION.

More show information and any additions or changes to the season schedule are available online at www.mhspac.com.

Watch for information on upcoming events at the Performing Arts Center!

Please contact the Performing Arts Center with any questions at 262-679-2300, extension 4545.

PLEASE JOIN US FOR A SHOW AT THE PAC!

Donations for the Performing Arts Center can be addressed to:

Community Performing Arts Fund/ MNSD
P.O. Box 306
Muskego, WI 53150

Sanitary District Office

Office Hours

The Norway Sanitary District office is located in the municipal building at 6419 Heg Park Road in Wind Lake. The office is open from 8:30 a.m. to noon and 1:00 to 4:30 p.m., Monday through Friday. The phone number is 262-895-6400.

Sewer bills are mailed quarterly, on or before the 1st of December, March, June and September. Payments must be RECEIVED by the due date in order to avoid a 10% penalty.

As an added convenience, residents may drop off their quarterly sewer payments using the drop box, located outside the Norway Town Hall. Payments will also continue to be accepted at First Banking Center in Wind Lake.

Change of Ownership

Buyers: Please call our office to give us the name and address to which your bills should be sent. The Sanitary District should be notified just as promptly as other utilities and services.

Sellers: To avoid being billed for services at a residence or business you no longer own, please contact the Sanitary District office to let us know that your property has been sold. If you have any questions, please call (262) 895-6400.

Town of Norway Sanitary District #1

Sewer Bills Up.... But Wait? *By PJ Nolan, Sanitary District Manager*

The bill that you receive from the Norway Sanitary District in March of next year will be increased by $8.00 per unit, per quarter for the next 3 years. However, the Sanitary District will not be keeping this money. We will be passing it on to the Racine County Board of Drainage Commissioners as part of their 3 year, $600,000 budget. People of the Norway Sanitary District were assessed over $240,000 or 40% of this budget figure. This money is used to maintain the drainage canals, aid in repairing the Rochester Street Bridge, operate the Rochester dam, and pay for the other expenses of running a drainage district. Due to the limitations of our computer billing program, this breakout will not be shown on your bills. With the current charge of $81.00 per unit per quarter, this will bring the total charge for a single-family home to $89.00, or $356.00 per year but this is for sewer and drainage. After these 3 years are up, we have no idea as to what will happen then.

The District submitted its annual chloride report to the Wisconsin DNR in September. Unlike other years, we had no exceedence of the 680 parts per million target value in our permit. This is mostly due to consistent precipitation we have received throughout the year. I attended a chlorides seminar in Waukesha and was now told what I have been telling the DNR all along. "You can't just look at the concentration, but check the total pounds also." They now seem to recognize that during dry times that the concentration will rise but your total pounds will stay the same. Its just not as diluted. Winter is just around the corner and that means salt for ice control. Studies done in Oconomowoc have shown that this is a big contributor when the melting begins in the spring and also during heavy rains when it is washed out of the ground on shoulders of roads that were salted heavily over the winter. The majority still comes from our water softeners though, so this may be a good time to check on or replace them to get the utmost efficiency for your salt dollar.

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Norway Neighborhood Watch

Home Improvement Scams

In the last two weeks, Investigator Rose Gordon, Consumer Fraud Investigator for the Sheriff's Dept., received a complaint of questionable business practices against a blacktop paving company, out of Racine, from a Norway resident. The company address is a mailbox at a shipping storefront. The contractor showed up at the elderly complainant's door, stating they had "extra" blacktop, and would pave their driveway for a good price. After the work was done and the payments made, the homeowner thought they might have been scammed or paid too much. The cost was over $5,000. In this case there was nothing law enforcement could do, as the contract was signed, work performed, and payment made. Luckily for the homeowner, there was actually work completed. However, there was no way to know if it was a good price, as the homeowner did not get any other bids. Also, there is a question of quality of workmanship.

When you need home improvements, get several bids from local businesses, and ask for references. Good businesses will always provide references and written bids. Ask your friends or neighbors who they would recommend to do the work. Look in the local phone book or paper or ask the Chamber of Commerce for registered businesses and call the Better Business Bureau for a rating on the business. Also, don't pay for the repairs until they are completed satisfactorily.

The main point here is, reputable businesses usually won't go door-to-door, offering "special deals" if you act right now. Take your time and do your research before agreeing to have any work done, whether it's roofing, basement waterproofing, driveways, or yard work.

And please pass this along to your neighbors, friends, and family.

– Inv. Kevin Brown
Racine County Sheriff's Dept.
262-636-3363

We Can't Pump Out the Lake

By PJ Nolan, Norway Sanitary District Plant Manager

After the storms of August 2007, I thought, "We'll never see flows like that during the summer months." Boy, was I wrong. Our rain gauge showed 10.14 inches of rain in June and as of early August, we are one half inch from our annual average. But it's not just the falling rain this time; Wind Lake was also a major contributor.

On June 5th, the flows started to jump up, but the five inches of rain on the 7th and 8th drove the flow to over 5.4 million gallons on the 8th. We had never recorded over 4 million gallons, ever! The lake level continued to rise throughout the period finally cresting on the 15th. The lake was now 1.7 feet above the normal level, which is at the top of the wall on the dam. This is when the investment of the people of the Sanitary District really paid off. The work on the sewer mains and laterals on East Wind Lake Road kept most of the floodwater out, and the new seals and coatings inside the manholes kept additional water out. District employees applied caulk and pick hole plugs to the manhole covers before they became submerged by lake water. The people of Norway stepped up for the finale by sandbagging flooded houses and pumping out the water. This was vital, as that water was going down drains and overloading the sewer system. After this was done, lift station levels started dropping and the pumps could catch up. In spite of all these conditions, NO water that entered the sewer system went anywhere but the treatment plant. I was told that over 160 communities had overflows to the environment, but we were not one of them, Joe.

It's hard to believe that as I write this, we are in a bit of a dry spell and could use some rain. I am collecting chloride samples this week and concerned that we might violate for the first time in a long while. It is not something we've had to worry about in all this wet weather but that's how it is in Wisconsin. If you don't like the weather, just wait – it'll change in a short while.

Burglary Awareness

By Chief John C. Hanrahan

In the spring and fall we usually see a significant increase in residential burglaries.

Please be aware that the majority of residential burglaries occur during the daytime, when most people are at work and children are in school. Do not hesitate to call police regarding suspicious vehicles and persons, whether during the day or night.

Burglars will many times approach and ring the doorbell at a house. If no one answers, they simply make entry and burglarize the home. If someone comes to the door, they have a pre-planned response to make their presence seem believable and not likely to raise suspicion. They may say they are looking for directions, a lost dog, or for a friend in the area. When this happens, the burglar usually moves to another house in the area and tries his method until he finds a residence where no one is home.

If this happens to you, or if you see a strange person walking or driving in the area, please obtain as detailed a description as possible. You should attempt to obtain the color, make and license plate number of vehicles, and the clothing and physical description of persons on foot. Call in suspicious activity immediately to the Town of Norway Police Department dispatch line at (262) 895-6211.

Norway Sanitary District

Office Hours

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Sewer bills are mailed quarterly, on or before the 1st of December, March, June and September. Payments must be RECEIVED by the due date in order to avoid a 10% penalty.

Please note: Sewer fees not paid by October 1, 2008 will be placed on the tax roll.

As a convenience, residents may drop off their quarterly sewer payments using the drop box located outside the Norway Town Hall. Payments are also accepted at First Banking Center in Wind Lake.

Change of Ownership

Buyers: Please call our office to give us the name and address to which your bills should be sent. The Sanitary District should be notified just as promptly as other utilities and services.

Sellers: To avoid being billed for services at a residence or business you no longer own, please contact the Sanitary District office to let us know that your property has been sold. If you have any questions, please call (262) 895-6400.

Spring 2008

ut into the general fund to
he tax rate down. have
lowest municipal rates in
unty.

ground Equipment

nents are being prepared
t for bids on the new
l equipment which will be
d south of the parking area
arn in Meyer Park. This
reat addition for the many
ho play in the park. Thanks
nd Lake Lions Club for
raising efforts toward this
d thanks to everyone who
other fund raising activities.

ation in the Works

urri Garden Club of Racine
d the Town $750 to be used
anting flowers in the no-
s of the park. Thanks to the
ardeners who applied for the
all the work they do on our
s. HAPPY SPRING!

s Website continues
. Check us out at
orway.wi.gov.

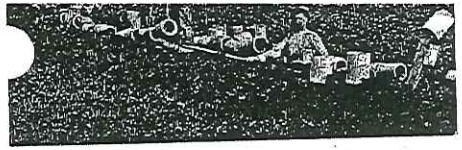
t Google "Town of Norway" -
e connected to an old site.

All officials can be contacted through the Clerk's Office at:

Norway Town Hall
6419 Heg Park Road,
Wind Lake, WI 53185
Phone: (262) 895-6335
Fax: (262) 895-6601
E-mail: tnorway@wi.rr.com

important project for 2008. The Town of Norway has been drained since the early 1900s by a tile and canal system. The Norway-Dover Drainage district maintains the canal system in both the Town of Norway and Town of Dover. However the drainage tile is maintained by the landowner or, in some cases, multiple landowners as farm fields are developed.

It's time for the Town to put together an inventory of these field drainage tiles and translate that information on a Town of Norway map that will show only field drain tile. With this inventory we may be able to solve some drainage problems and not create new problems. We need your help to locate these tiles



Men dig trenches for field drain tile lines on the T. Baur property located on North Cape Street sometime around 1908–1910. Photo courtesy of Carol Jacobson-Kunovar.

and document them for your land. If you know of the specific or general location of farm field drain tile, call me at the Town Hall at (262) 895-6335. I will set up a time to meet with you and add the location of your tile to our master map. Thanks for your help.

sometime in late April or early May of 2008. Following the ma[illegible]g of the assessment notices, ou[illegible]ice will conduct the annual Open Book meetings. The Open Book meetings offer property owners an opportunity to discuss assessment-related issues in an informal setting with the assessor. Property owners with questions or concerns regarding their assessed values should attend the Open Book. The Open Book meetings will be held at the Town Hall. Property Owners are encouraged to attend the Open Book prior to filling an objection with the Board of Review. The Open Book meetings will be by appointment only. Open Book appointments can be made by contacting the Town Clerk's Office at 895-6335. Residents wishing to contact the assessor can do so by calling our office at (262) 542-3332.

Spending Money to Save Money? Infiltration!

By P.J. Nolan, Sanitary District Manager

When my wife comes home from shopping, she will say, "Do you know how much I saved?" And I'll say, "No, but how much did you spend?" I guess it's all in the way you look at it. I think when it comes to infiltration – water leaking into the sewers – the decision is a little easier because the cost is so high. You'll always have some leakage. There is no such thing as a perfect, watertight system. But on the other hand, you don't want field tiles for sewer mains either. A ten-gallon per minute leak adds up to 14,400 gallons per day, or the same as 48 average households. Over a year's time this comes to a total of over 5 million gallons of ground water from one leak. And it's not just the cost of pumping, treating, and disposal of this water, there's also the capacity at the treatment facility being used up. Unabated, this will cause us to enlarge the facility before it should be necessary.

In the dry year of 2003 the average daily flow was 681,000 gallons but during the wet year of 2006, 1,163,000 gallons were treated on the average day. Where did the extra water come from? I don't think people used that much more water. It leaked in. During a dry period in July of 2001 we did chloride testing in different areas of the district. The flow from the east side of Wind Lake had the lowest concentration of chloride with 360 mg/L while the next lowest area had more than double that at 740 mg/L. Dilution from the leaking ground water caused the low result even during a dry time.

In my last column I informed you of the project on East Wind Lake Road to line 1,700 feet of sewer to stop the flow of ground water into the system. This repair cost us just over $160,000 but will prevent millions of gallons from leaking in. During the study of this area it was discovered that three houses had major leaks in their pipes leading to the main. This is the property owner's responsibility to ensure that water isn't leaking in their pipes and being conveyed to the treatment facility where everyone has to pay to have it treated. These pipes will also be repaired by their owners to keep the unwanted water out. In the coming months and years we will be searching the entire collection system for leaks in our pipes and in yours. Please cooperate with us in this search by repairing your pipes if the need arises, to keep the flow to the treatment facility as low as possible. We're all going to have to spend some money on this effort, but we will be saving more money in the years ahead in lower operation costs, with less worn-out equipment, and by not spending money on expanding the facility prematurely.

Not a Drop Spilled! *By P.J. Nolan, Sanitary District Manager*

Remember back in August when the weather was warm, the sun was shining and we received about 13 inches of rain in two weeks? That was just after the last Norway News came out, so this is the first opportunity to report on the effects of those rains. Flow at the treatment plant swelled to over 3.8 million gallons on August 19th, then dropped off some until the canals flooded and another 1.7 inches of rain fell, and we were over 3.8 million gallons on the 23rd. The bottom line of all this is every gallon of water that entered the sewer system was conveyed to the plant, processed, and sent on its way. All the work and money that has been put into the plant and lift stations paid off in no overflows.

In spite of this good news, we are continuing our efforts to tighten up the collection system in Norway. The Sanitary District Commission has approved a plan to line approximately 1700 feet of 15 inch sewer main along East Wind Lake Road that has shown itself to have greatest amount of leakage. An epoxy liner will be installed into the mains through the manholes to seal any openings in the pipe. The home laterals will then be cut open and also sealed. A coating will be applied to the inside of the manholes to seal them water tight and new inner-outer seals put around the manhole covers for additional protection. All this work should keep us from ever reaching those 3.8 million gallons per day numbers again.

The annual chloride report was submitted to the DNR at the end of September and there is good news and not so good news. There were no violations of the 680 mg/L weekly average in our permit. But... there was no real reduction in the number of pounds of chloride discharged. We have to keep plugging away in our efforts to use less salt in our daily lives.

At the annual Wastewater Conference, the superintendent of Marshfield had an excellent presentation on the collection of pharmaceuticals to keep them from being flushed down the toilet and into the environment. They told of instances of fish where both male and female cells were altered and of fish with high levels of anti-depressants that weren't afraid of predators. In four collections they have gathered a ton of drugs both controlled and non-controlled. One woman brought in a shopping bag full of empty pill bottles. When questioned where the pills were, she said she had flushed them down the toilet that morning. I guess she missed the point. I found out that the Village of Waterford recently had a collection day at the Village Hall. I'm sure there will be more in the area so hang on to the drugs no matter what kind and dispose of them properly. Please do not flush them.

Norway Sanitary District

Office Hours

The Norway Sanitary District office is located in the municipal building at 6419 Heg Park Road in Wind Lake. The office is open from 8:30 a.m. to 4:00 p.m., Monday through Friday. The phone number is (262) 895-6400.

Sewer bills are mailed quarterly, on or before the 1st of December, March, June and September. Payments must be RECEIVED by the due date in order to avoid a 10% penalty.

As a convenience, residents may drop off their quarterly sewer payments using the drop box, located outside the Norway Town Hall. Payments are also accepted at First Banking Center in Wind Lake.

Change of Ownership

Buyers: Please call our office to give us the name and address to which your bills should be sent. The Sanitary District should be notified just as promptly as other utilities and services.

Sellers: To avoid being billed for services at a residence or business you no longer own, please contact the Sanitary District office to let us know that your property has been sold. If you have any questions, please call (262) 895-6400.

Wind Lake Lions Club News

Street Dance a Success, 2008 Dance Planned

The club held its first annual street dance on September 8. Good music by T W & The Tumbleweeds was enjoyed by the crowd. For 2008, the club plans to sponsor a street dance the first week-end in August.

Holiday-related Contributions to the Community

The Wind Lake Lions Club has included in their budget $1000.00 to go to the Helping Hands food pantry. The club will also "Adopt a Family," providing gifts to family members.

12th Annual Car Show, Chicken Bar-B-Q and Craft Fair Planned for 2008

Tentative date for this annual event is June 29, 2008. Our new location at Meyer Park is allowing for a bigger and better day of fun for the entire family. We invite community members to look at joining the Lions Club and participating in this and other fund-raising activities.

Town of Norway Sanitary District #1

Equality in Drainage Board Assessment?

By PJ Nolan, Norway Sanitary District Manager

The Racine County Board of Drainage Commissioners has filed a report with the county treasurer's office for an assessment of the Norway-Dover drainage district for the amount of $600,000 for a three year operating budget. It is believed Town of Norway Sanitary District will be assessed for $240,030 of that amount. This money is to be used for dredging of the canals, $400,000; $72,000 toward the replacement of the River Road bridge in Rochester, engineering services, $25,000, cost of the assessment, fees, and administrative costs, $45,000, and some other minor expenses.

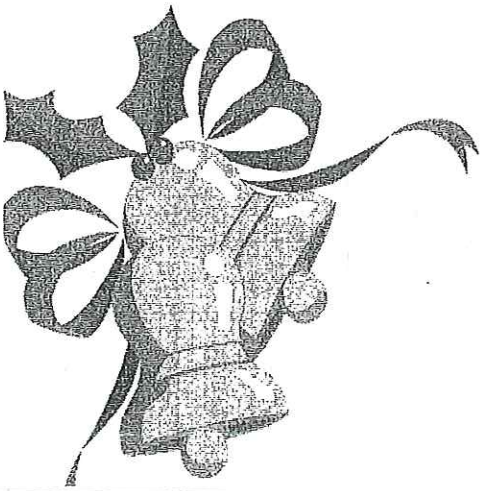
It appears the Drainage Board is assessing the sanitary district 40% of the costs of this current project. The previous assessment that we are still paying was about 10% of the proposed costs of a project started in the 1990's. The Sanitary District Commissioners, along with their attorney and engineers feel there has been an error here and will contest this assessment asking for justification. There should be a public hearing on our objections in the near future which would allow our residents to ask questions and voice their concerns.

With winter coming up, run-off of excess salt getting into the sanitary sewers is once again a concern. Please don't use any more salt than necessary to remove ice and prevent slipping. Every little bit helps.

Notice to Taxpayers in Western Racine County

By Waterford Area School District – December 2005

In June 2003, the Racine County Supervisors passed a resolution whereby, effective July 1, 2006, Racine County will no longer be the agency providing services for special education programs in western Racine County. As of that date, special education services will be the responsibility of the local public school districts. Taxpayers are hereby provided with preliminary notice that, effective with the December 2006 tax bill, the costs for these services will be included in the property tax levied by the respective school districts. This portion of the tax levy will take the place of what was formerly levied by Racine County and found within the County's portion of the property tax bill. The County will continue to assess a tax for residual purposes. This does not effect Muskego-Norway School District.



Building Inspection Notes

As another heating season approaches, I would just like to remind everyone that permits are required for replacing your furnace. If you or your contractor do not pull a permit, you will be subject to double permit fees and fines.

If a contractor does work on your home, ask to see a copy of the permit. In the end, the homeowner assumes responsibility.

We now have a new computer program to track all permits issued by the Town of Norway. If you don't know whether or not you need a permit for your project, you can find out by calling the Inspection Department at 895-2732. Office hours are from 8:00-11:00 a.m., Monday-Friday.

Don't Put It In! We Can't Get It Out!

By P.J. Nolan, Norway Sanitary District Plant Manager

Our facility was built to treat wastewater by removing normal household contaminants. We have a community of organisms that take out the carbonaceous wastes and ammonia that is in the water. Aluminum sulfate is added to tie up the phosphorous and take it out with the excess organisms or sludge. Other substances just pass through and into the environment. As I told you back in 2005, the solution to pollution is not dilution. So what are these things we can't get out?

Mercury is now at the forefront of items that are polluting our environment. Mercury is very toxic even in very small amounts. It is currently tested for in parts per trillion. When I was in high school we had a pint bottle full of mercury and use to play with it on the desks. What did we know? If a thermometer broke, you just wiped it up and put it down the drain. Please don't do that. Dispose of it properly at a hazardous waste site. Dentists are currently being made to install mercury recovery equipment to prevent dust from fillings from going down the drain.

Pharmaceuticals are another problem that is just being recognized. For years we have been told if you have drugs you don't need or are expired, flush them down the toilet. We are now finding these drugs in the water supply because the treatment facilities are not capable of removing them. Now we are being told to return them to your doctor or to the pharmacist. I'm not sure what they're going to do with them. Hopefully not flushing them down the toilet.

We are all aware of the on going battle against chloride, as something the facility is not capable of removing. Once in the water it is very expensive to remove. It would about double our operating budget and once we removed it, there isn't anywhere to dispose of the chloride we had removed.

Strange as it may sound, human hair is another thing that causes problems in our industry. Hair doesn't break down and it winds together into big clumps that plug pumps and pipes. I recently talked to a superintendent from a nearby facility that had a ball of hair in a lift station that was two feet across and so heavy they couldn't lift it. They had to cut it into pieces to remove it. I have two screens over the drain in my shower to try to catch the hair before it goes down the drain. You could do the same.

The bottom line in all these cases is to prevent them from going down the drain in the first place. That is the best way to eliminate the problems that they cause down the line for all of us and the future generations that will live here after we are long gone.

P.J. Nolan
Town of Norway Sanitary District #1

Mailbox Placement and Condition

By Wayne Myers, Norway DPW Foreman

Now is the time of year to take inventory of the placement and condition of your mailbox. Check for rotted support post and be sure mailbox is attached securely. Mailboxes damaged by direct contact with our town equipment will be repaired by the DPW only if installed to Town of Norway Highway Clearzone regulations. (See below).

Mailboxes must be mounted on supports designed to break away on impact (i.e. 4 x 4 wood post, 2" or less I.D. pipe. Do not set in concrete. Avoid more than two mailboxes per post. Avoid long planks.

Please Note: mailboxes must be set back a minimum of three feet from the through traffic land (the paved portion of the road right of way).

Mailboxes that cannot be repaired are replaced with a standard black #1 mailbox on a 4 x 4 post. If the ground is frozen and repairs cannot be made we will install a temporary mailbox and return in the spring to make permanent repairs.

If you have any questions about these requirements, please call the Town Garage at (262) 534-3025.

Norway Sanitary District

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Sewer bills are mailed quarterly, on or before the 1st of December, March, June and September. Payments must be RECEIVED by the due date in order to avoid a 10% penalty.

Please note: Sewer fees not paid by October 1, 2007 will be placed on the tax roll.

As a convenience, residents may drop off their quarterly sewer payments using the drop box, located outside the Norway Town Hall. Payments are also accepted at First Banking Center in Wind Lake.

Change of Ownership

Buyers: Please call our office to give us the name and address to which your bills should be sent. The Sanitary District should be notified just as promptly as other utilities and services.

Sellers: To avoid being billed for services at a residence or business you no longer own, please contact the Sanitary District office to let us know that your property has been sold. If you have any questions, please call (262) 895-6400.