

CITY OF ANTIGO
PUBLIC WORKS COMMITTEE
MINUTES OF MEETING HELD
APRIL 24, 2019

Public Works Committee of the City of Antigo met in Regular Meeting on the above date at 5:30 PM in the Multi-Purpose Room, City Hall, Ward 4 Tom Bauknecht presiding.

Attendee Name	Title	Status	Arrived
Tom Bauknecht	Ward 4	Present	
Rick LeBrun	Ward 6	Present	
Barb Rebstock	Ward 1	Present	
Sandra Fischer	Ward 2	Present	
Scott Henricks	Ward 9	Present	

Others in attendance: Taryn Nall, Ruekert & Mielke Consulting Firm; Mark Desotell, Director of Administrative Services; Charley Brinkmeier, Surveyor/Project Manager; Tommy Horswill, Infrastructure Alternatives; Kirk Packard, Street Commissioner; Alderperson Reinhardt Balcerzak; and Jaime Horswill, Lead Office Assistant.

Discussion and Action May Occur on Any of the Following Agenda Items:

1. Approval of the Minutes from the February 27, 2019 Meeting

RESULT:	CARRIED [UNANIMOUS]
MOVER:	Barb Rebstock, Ward 1
SECONDER:	Tom Bauknecht, Ward 4
AYES:	Bauknecht, LeBrun, Rebstock, Fischer, Henricks

2. Presentation by Taryn Nall of Ruekert & Mielke Consulting Firm Regarding Smoke Testing to Identify Sanitary Sewer Infiltration in a +/- 400 acre Area Centered on the Downtown Corridor - Information Only

Mark Desotell, Director of Administrative Services, provided a memo noting that in a continued effort to identify the amount of unwanted ground water/surface run-off into the City's sanitary sewer system, a presentation on the benefits of smoke testing will be made by Taryn Nall of Ruekert & Mielke Consulting Firm. The testing will help identify the sources and recommended corrective actions for addressing identified infiltration points. Repairs at times can be relatively simple in nature but can range to more costly remedial action being identified. Future investment priorities can be established once the final data is generated.

Mr. Desotell's memo continued by advising that the area under consideration for this project consists of about 10% of the City's land-mass and is centered upon the downtown corridor. This location was selected in order to assess any downtown corridor problems/solutions ahead of design work along the pending Fifth Avenue reconstruction project. This particular portion of the community encompasses much of the older portions of underground infrastructure and hopefully will identify any key problem areas. Infiltration of ground or surface run-off into the City's sanitary sewer system ultimately introduces "clear water" into the treatment process at the wastewater plant. This not only threatens the operational capacity of the plant but also adds to the overall cost of treatment.

Taryn Nall, Ruekert & Mielke Consulting Firm, gave a presentation regarding smoke testing to identify sanitary sewer infiltration. Mr. Nall commented that smoke testing can be done in a short amount of time. In this case, a couple of days.

Mr. Nall's presentation noted that most common defects and inflow sources are from storm

sewer catch basins (cross connected storm and sanitary sewer), manhole castings (open pick hole covers), casting to riser connection (defects allow smoke to come through pavement), roof leaders (cross connected to sanitary sewer), yard and foundation drains (cross connected to sanitary sewer), sanitary laterals (defects allow smoke to exit to ground), sanitary cleanout (cracked/leaking), connected abandoned drain field; uncapped sanitary pipelines in crawl space and cross connected septic tanks.

Mr. Nall explained that this is a labor intensive program for the few days of testing. They rely on City staff to help find all the defects within the system. They set up a smoke blower at manholes and light smoke candles which travels where ever there is space to travel. Mr. Nall has been in basements that are totally smoked out and he will have a sore throat for a little while as the smoke is an irritant. But, it is not a life threatening smoke. There are no long term impacts with the smoke. It does not stain. He does have material safety data sheets available.

Mr. Nall noted that Ruekert and Mielke staff would include himself and one operator. The rest of the staff would consist of City staff and possibly a drone consultant.

Upon inquiry by Alderperson Bauknecht, Mr. Nall advised that City staff would include approximately eight to ten people.

Mr. Nall noted that it is very important for property owners to notify someone immediately if there home is filled with smoke, which means everyday there is sewer gas escaping into their homes.

Mr. Nall noted that properties can fill with smoke due to the following conditions: dry traps in unused toilets, sinks and drinking fountains, deteriorated toilet wax ring, washing machine connections to sanitary lateral with no P trap and deteriorated floor drains.

Mr. Nall went through smoke observations advising that the only location that smoke should be observed is from plumbing vents on the roof. Note all properties where plumbing vent is not smoking. Owner should have plumber check for problems. He noted that the observation team utilizes dry erase boards and takes pictures where the smoke is showing with the address.

Mr. Nall noted that other benefits of smoke testing programs include reducing service interruptions, locate collection system defects prior to major structural failures, identify locations where sewer gas is released to areas outside buildings and is entering structures (human health hazard), identify plugged laterals and vents that can lead to surges of sewage and sludge into private property plumbing fixtures during City sewer jetting operations, locate abandoned laterals, a good reminder to property owners that floor drains and plumbing fixtures should have traps and should add water periodically to traps, and identifies improperly installed plumbing.

Mr. Desotell advised that typically the water plant produces approximately 1,000,000 to 1,300,000 gallons of water daily, however, the wastewater treatment plant is treating 1,300,000 to 1,600,000 gallons daily depending on the rainfall. Therefore, the City is treating clear water and taking up capacity in the system. It has taken over the wastewater treatment plant and the sub-basement begins to fill.

Tommy Horswill, Infrastructure Alternatives, commented that the wastewater treatment plant was taking on 3,500 gallons per minute during the last rainfall. Conservatively speaking, this is 2,000 gallons of clear water per minute.

Mr. Desotell advised that staff also wants to prepare for the Fifth Avenue project as new infrastructure will be placed at that time. If there are cross connections in the downtown, there will be new infrastructure with laterals to each building. Now would be the time for the property owners to begin to prepare for that expense.

Mr. Desotell also spoke about the use of drones as a possibility to help be an extra set of eyes on the ground.

Mr. Desotell noted the use of Antigo Firefighters as well. They will prepare the smoke eater in case someone's basement or business fills with smoke.

Mr. Desotell commented on the use of doorhangers and notices to property owners.

Mr. Desotell noted as reinforcement that where ever the smoke comes into homes or businesses, they are also getting daily hydrogen sulfite gas into their homes. This can be a potentially dangerous problem and should be corrected.

Mr. Nall noted that Ruekert Mielke will supply sample standard correction notices as part of their proposal. This is not something new that the City of Antigo is creating, this is part of the ordinances and has been for years.

Upon inquiry by Kirk Packard, Mr. Nall reported that it takes approximately an hour for the smoke to dissipate. The candles burn for approximately five minutes.

Alderperson Bauknecht commented on concerns that homeowners will need to list any defects with the smoke testing on their home inspections should they decide to sell their homes.

Mr. Desotell reiterated that if there is smoke coming into a home, there is also hydrogen sulfite gas coming into the home. Typically the cost to correct problems in residences are small, such as installing a trap in a floor drain or plug the floor drain and pull the plug as needed.

Upon inquiry by Alderperson LeBrun, Mr. Nall indicated that an area that he smoke tested which was twice the size that they are doing here, there were 74 defects varying from numerous things, including catch basins.

Mr. Desotell further noted that this expense is also the expense of other people who do not have infiltration back into the system as all residences have to pay for treatment of the clear water that made its way back into the system. Therefore 10% of people caused the problem but 100% of the people are paying for it.

Upon inquiry by Alderperson LeBrun, Mr. Desotell advised that the Fire Department will remain operational and there will be no liability problems.

Mr. Nall also suggested referring to the smoke testing as Phase I, Central Location so that residences/businesses do not feel singled out.

Upon inquiry by Alderperson Bauknecht, Mr. Desotell explained that there are enforcement actions available through current ordinances to deal with most situations that may arise. Mr. Nall indicated that the current ordinances prohibit clear water infiltration.

INFORMATION ONLY

RESULT:	PLACED ON FILE-NO VOTE
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3. Professional Service agreement with Ruekert & Mielke for 2019 Smoke Testing of the Sanitary Sewer System Essentially in an area bound by 4th Ave to 10th Ave and from Lincoln Street to Arctic Street

Mr. Desotell provided a memo advising that based on the presentation made by Mr. Nall and as the result of staff meetings regarding the potential benefits of the smoke testing proposal it is his recommendation to enter into a professional services agreement for the 2019 smoke testing of the sanitary sewer system. This effort will help to identify infiltration problem areas for future consideration of repairs to separate the clear water from the sanitary flow to the wastewater treatment plant. Any comments/concerns will either be mitigated during the presentation prior to committee's final consideration or this proposal will be modified accordingly and returned for future consideration. The proposed fees for the 2019 smoke testing of the +/- 400 acre area centered on the City's downtown corridor are being presented at \$15,000 and includes the requirement of field assistance from the City's street and engineering staff. An alternative

(reduced study area) concentrating on just the main downtown corridor is also attached. If selected, this option will be for a +/- 100 acre area at a revised rate for services.

Mr. Desotell commented that the 100 acre area has a cost of \$8,000.

Upon inquiry by Alderperson LeBrun, Mr. Desotell noted that the cost for smoke testing is not included in the projected cost for the Fifth Avenue project. This amount is budgeted within the 2019 sanitary sewer enterprise fund.

Upon inquiry by Alderperson Rebstock, Mr. Nall indicated that the smoke testing would occur in July/August 2019.

Motion to approve the Professional Service Agreement with Ruekert & Mielke Consulting Firm for 2019 Smoke Testing of the +/- 400 acre area of the sanitary sewer system as presented in the amount of \$15,000 utilizing budgeted funds.

RESULT:	RESOLUTION TO COUNCIL [UNANIMOUS]
	Next: 5/8/2019 6:00 PM
MOVER:	Scott Henricks, Ward 9
SECONDER:	Sandra Fischer, Ward 2
AYES:	Bauknecht, LeBrun, Rebstock, Fischer, Henricks

Any Other Matters Authorized by Law to be Considered

Alderperson LeBrun requested before the smoke testing project that a group meet to discuss how things will be handled after the smoke testing is completed.

Mr. Desotell suggested maybe a Public Informational meeting before the test.

INFORMATION ONLY

Adjournment

1. **Motion to:** Adjourn at 6:40 pm

RESULT:	CARRIED [UNANIMOUS]
MOVER:	Rick LeBrun, Ward 6
SECONDER:	Barb Rebstock, Ward 1
AYES:	Bauknecht, LeBrun, Rebstock, Fischer, Henricks

Tom Bauknecht, Chairperson

Date