

GAINES SPECIAL TOWN BOARD MEETING  
Gaines, NY June 17, 2014

A Special Town Board Meeting of the Town of Gaines, County of Orleans and the State of New York was held at the Gaines Town Hall, 14087 Ridge Road, Gaines, New York on the 17th day of June 2014.

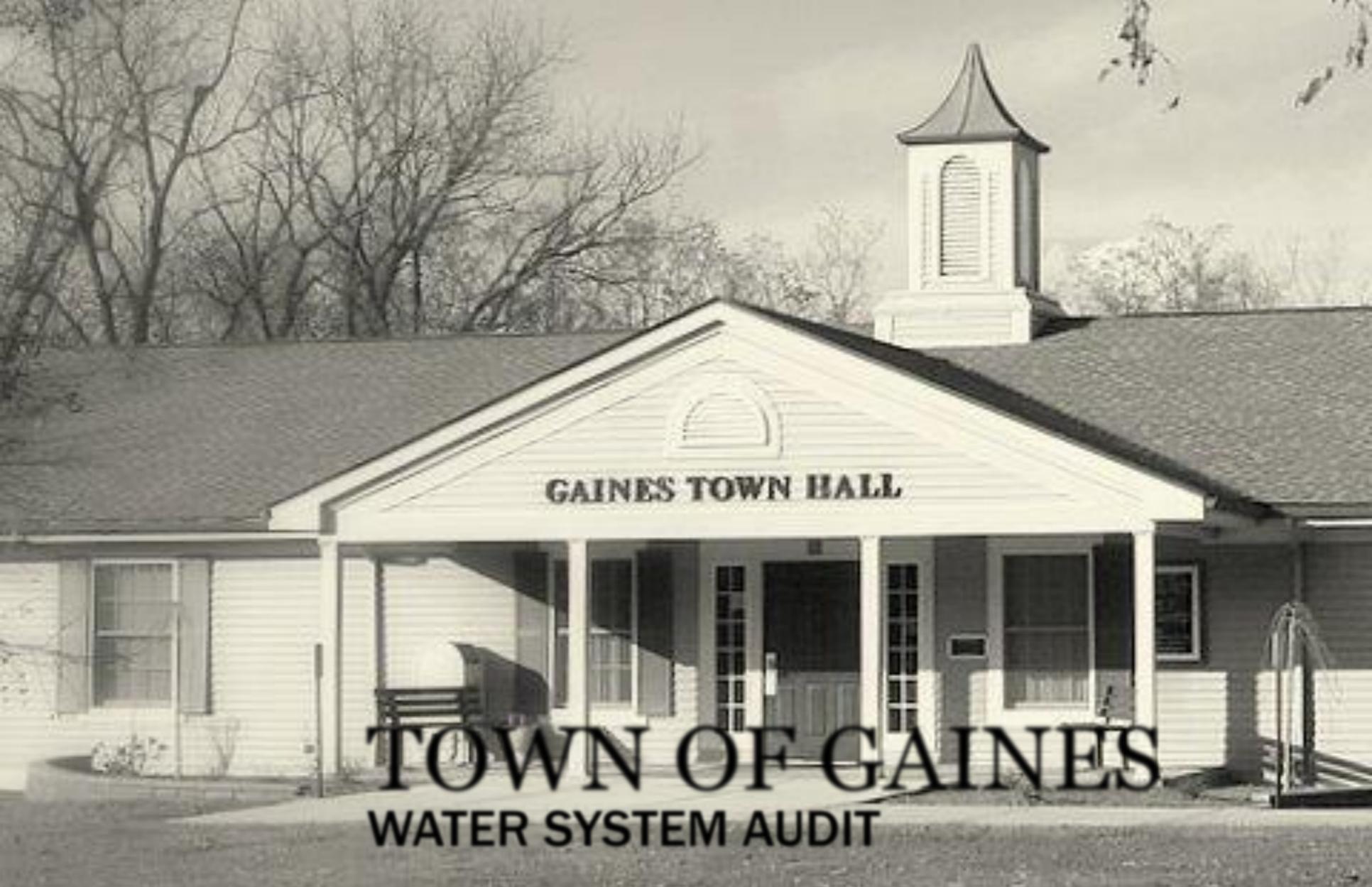
PRESENT: Carol Culhane ----- Supervisor  
James Kirby ----- Councilperson  
Susan Smith ----- Councilperson  
Douglas Syck ----- Councilperson  
David Kast ----- Councilperson  
Ron Mannella ----- Highway Superintendent  
Jean Klatt ----- Town Clerk

EXCUSED: None

OTHERS PRESENT: Wm. & Mary Schuler, Bill Rosato, Sharon Harding, Lynne Johnson, W Baker, Ray Burke, Bruce Schmidt, Mary Jo Syck, Marilynn Miller, Connie Mosher, Gloria Neilans, Jerry Culhane, Jim Krencik, Curt Strickland, Jim Theodorakas, Charles & Gwen Hughson, Dave & Marcia Thom, Mary Neilans, Larry Williams, Brian Sibiga, Gerald Summe

Supervisor Culhane called the meeting to order at 6:30PM with the Pledge to the Flag.





**GAINES TOWN HALL**

**TOWN OF GAINES**  
**WATER SYSTEM AUDIT**

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# Agenda

1. Introduction
2. American Water Works Association (AWWA) Water Audit
3. Water Meter Testing (Residential)
4. Large Meters

5. **Water Meter Reading (Current and Proposed)**
6. **Items for Discussion**
7. **Discussion**



# American Water Works Audit

# American Water Works Association Audit

1

- The audit was conducted using 2013 year data
- The water audit scored the Town of Gaines water system as a 48 out of 100 overall (A level 2 out of 5 levels)
- The existing water system was rated on the following categories
  - ⦿ Master Meter Adjustment (Score 2 out 10)
    - No automatic data logging of purchased water – daily readings are scribed on paper records – data is adjusted only when large errors occur
    - RECOMMENDATION: Utilize automated data monitoring equipment already in operation to track net water usage and look for changes with spreadsheet.
    - Advanced technology water meters currently being installed.

# American Water Works Association Audit

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## ⊙ Water Imported (Score 5 out 10)

- Occasional meter accuracy testing/calibration performed (once every 4 years)
- **RECOMMENDATION:** Accuracy testing and calibration should be conducted annually.

## ⊙ Water Exported (Score 6 out 10)

- Occasional meter accuracy testing/calibration performed (once every 4 years)
- **RECOMMENDATION:** testing and calibration should be conducted annually and replace two remaining meters at interconnections with Master Meter Octave ultrasonic meters.

# American Water Works Association Audit

3

- ⦿ **Billed Metered (Score 6 out 10)**
  - Over 90% of meters billed on volume used, good customer meter records with limited meter accuracy testing.
  - **RECOMMENDATION:** Refine meter testing accuracy program, set meter replacement goals based on Gaines specific accuracy test results.
- ⦿ **Unbilled Unmetered (Score 5 out 10)**
  - Extent of unbilled water is partially know but data and record keeping is lacking
  - Water Loss from 2011 to 2013 ranged from 8.3 MG to 15.4 MG which equates to between \$35,600 and \$65,400 in lost revenue annually.
  - **RECOMMENDATIONS:** Evaluate procedure for hydrant water usage, implement leak detection program, identify and implement opportunities for additional flow monitoring throughout system.

# American Water Works Association Audit

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## ⦿ Unauthorized Consumption (Score 1 out 10)

- Extent of unauthorized consumption is unknown due to lack of implementation policy and deficient record keeping (no logging of bulk meters/hydrant meters).
- **RECOMMENDATION:** Update water utility policies to ensure that all known occurrences of unauthorized consumption are outlawed and that appropriate penalties are prescribed. Create written procedure for record keeping of bulk meters/hydrant meters and enhance record keeping.

## ⦿ Customer Meter Inaccuracies (Score 3 out 10)

- Deficient record keeping and meter oversight (meter installation data) is recognized by the Town who has allotted staff and funding resources to organize improved record keeping and start meter accuracy testing.
- **RECOMMENDATION:** Implement a reliable record keeping system for customer meter histories using electronic methods and expand annual meter accuracy testing to evaluate a statistical significant number of meters.

# American Water Works Association Audit

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## ⦿ Systematic Data Handling Error (Score 4 out 10)

- Computerized billing system exists but needs added functionality. Periodic limited internal audits conducted.
- Billing audit has been implemented.
- **RECOMMENDATION:** Refine permitting and billing procedures and minimize opportunities for missed billing (complexity of shared meter reading with Murray). Enhance reporting capabilities of billing software including data exporting to appropriate file types for sharing information. Account paper records should be compared versus meter serial numbers.

## ⦿ Length of Mains (Score 2 out 10)

- Paper records of all desired information in poor condition or not readily accessible. Deficient procedures to ensure that new water mains installed are accurately documented and available.
- **RECOMMENDATION:** Complete inventory of paper records. Review procedure for documenting new water main installation and abandonment. Confirm inventory of records and correct omissions. Conduct random field checks. Link to GIS and asset management databases.

# American Water Works Association Audit

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- ⦿ **Number of Active/Inactive Connections (Score 2 out 10)**
  - Permitting policy exists but paper records, procedural gaps, and week oversight result in questionable total for number of service connections.
  - **RECOMMENDATION:** Launch random number of field checks. Link with GIS.
- ⦿ **Average Length of Service Connection (Score 3 out 10)**
  - The curb stop serves as the delineation between the water utility and the customer. Curb stop locations are not well documented.
  - **RECOMMENDATION:** Assess accuracy of paper records by field locating curb stops including use of pipe locating equipment. Update for errors and omissions.

# American Water Works Association Audit

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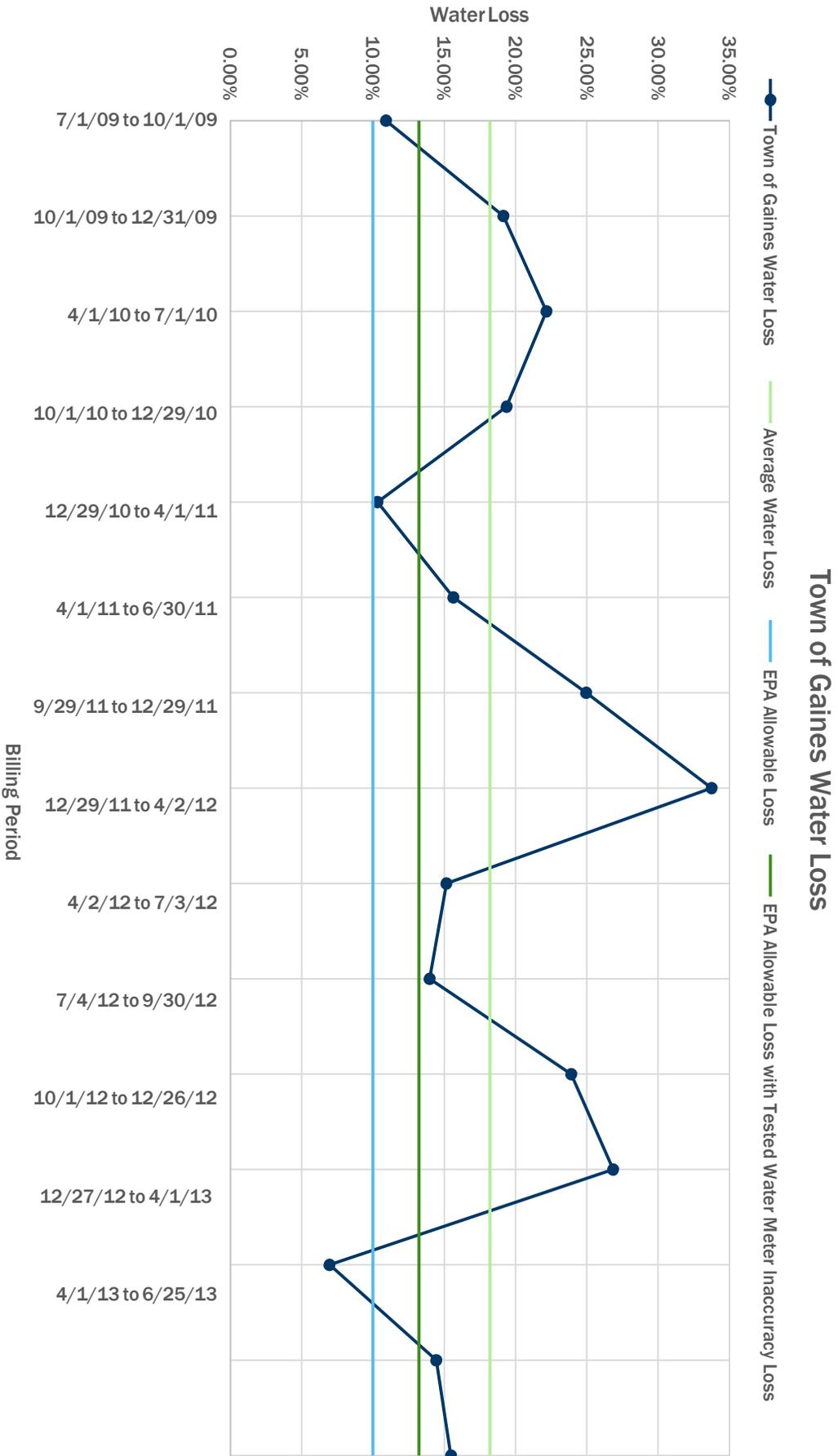
- ⦿ **Average Operating Pressure (Score 2 out 10)**
  - Limited pressure data which is manually recorded. Pressure data is gathered at individual sites only when low pressure complaints are received.
  - **RECOMMENDATION:** Use pressure logs and pressure recorders to gather system wide pressure values.
  
- ⦿ **Total Annual Cost of Operating Water System (Score 7 out 10)**
  - Reliable industry standard cost accounting system in place.
  - **RECOMMENDATION:** Standardize the procedure to conduct annual financial audit.

# American Water Works Association Audit

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- ⦿ **Customer Retail Unit Cost (Score 4 out 10)**
  - **Straight forward water structure in place** The billing rate is derived from a singular customer class. Bulk customers are not charged the flat rate for water.
  - **RECOMMENDATION:** Consideration of different rates for residential, commercial and industrial.
  
- ⦿ **Infrastructure Leakage Index (Score less than 1)**
  - **A lower score is optimal.**
  - **A measure of allowable leakage for a system your size (Length based scoring system).**
  - **Gaines has a very low leakage rate for the length of water mains and is performing very high according to this benchmarking matrix.**

# American Water Works Association Audit



6/25/13 to 10/1/13

10/2/13 to 12/30/13

# Water Meter Testing Residential

# Water Meter Testing Residential

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- Number of meters tested = 6 meters
- Average age of water meters tested – 15.17 years (12.3 years apparent age)
- Average Inaccuracy of meters tested – 2.21%
- Water meter accuracy loss per year – 0.146% (0.180% based on apparent age)
- Typical water meter age = 18 years
- Typical water meter inaccuracy = 3.23%
- Typical water replacement schedule should be after 13 to 15 years for residential meters

- **Line by line analysis should be used to select water meters for replacement account for minimum billing**

# Large Meters

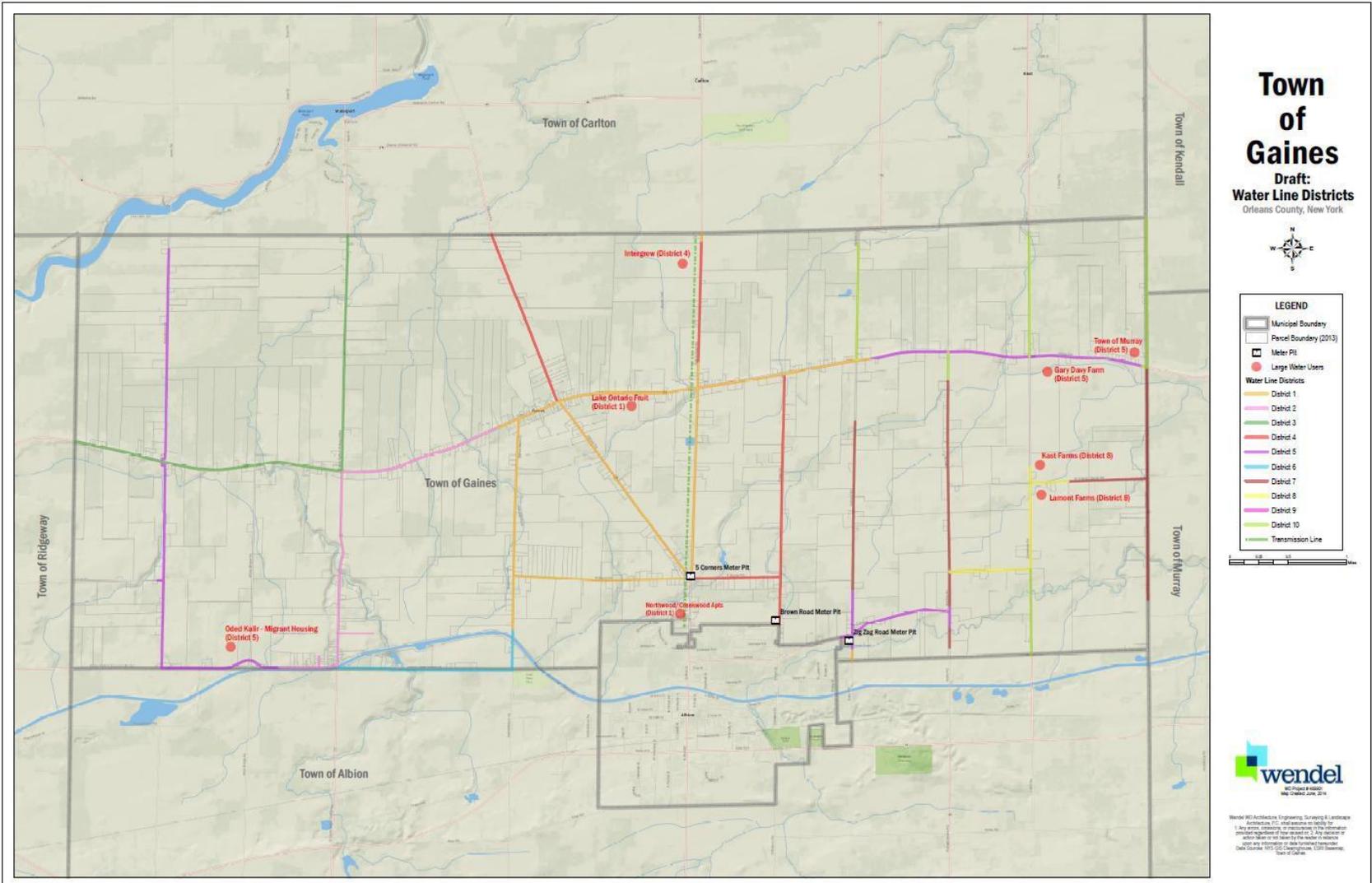
# Large Meters

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- Large meter replacement program has been initiated
- Large meters are being replaced with Master Meter Octave Ultrasonic Water Meter
- Recommended that remaining two bulk water meters – one at Ridge Road west of Route 98 at Ridgeway line and second at Route 279 are replaced as a high priority
- Cold storage facility meter that was a 4” to 6” meter should be replaced
- Recommended that the water law is modified for Gaines to obtain ownership of large meters

# Large Meters – Large Users

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# Water Meter Reading

# Water Meter Reading

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- Automated meter reading software allows water department to look at Master meter reads twice per day
- Master meter data (Master Link) should to be shared and used town wide to identify leaks as well as to identify unauthorized water usage
- Water meter reading should be conducted more often in problem areas to identify potential leaks and unauthorized usage with also providing a historical background for water usage
- Recommended that water meter reading conducted once per month in

**problem districts to compare master meter values to water billed**

# Items for Discussion

# Items for Discussion

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- **Water district consolidation opportunity**
- **Capital improvement program and economically sustainable financial model**
- **Leak detection studies and equipment**
- **Additional Master meters**

# Summary

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- **AWWA Water Audit scored water system at 48 out of 100 with low scores for water system oversight and records management**
- **Water system was rated as outstanding for relative percentage of leaks per size of system. Unaccounted water is above EPA standard used by New York State Auditors**
- **Much of the technology is in-place to enhance the management of the water system**
- **Consolidation of water districts would allow more time to focus on management of water system**
- **A well planned capital improvement program with a financial plan is recommended**
- **Large seasonal spikes of unaccounted for water cannot be validated with leak records or other known causes based on the information provided**

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Following the presentation Brian Sibiga entertained questions from the public.

Woody Baker asked if the loses are seasonal? Brian replied they seem to be. Woody asked if there would be a problem consolidating the Water District when the still have debt. Brian replied that there are ways to do it. Woody asked if the main meter pits are metered. Brian said yes but there is no way to measure leaks.

Jim Krencik asked what does 48 out of 100 mean? Is there a comparable scale to compare it to other towns? Brian replied that Gaines is about 50% as compared to other towns and is 2 out of 5.

Dick DeCarlo asked if there is a way to by-pass the valves in the meter pits or any evidence of tampering or leaky seals. Ron Mannella said each meter pit has 2 meters to monitor flow in both directions and that they didn't look at tampering in this bench mark audit.

Connie Mosher asked if the town was aware of the water loss prior to the audit. Supervisor Culhane replied that the water billing system showed a 60,000 gallon loss over the past 4 years.

Marilynn Miller asked if the water districts are indebted to the Village of Albion for water purchased. Supervisor Culhane responded that the Village has been paid in full.

Tom Rivers asked what the town purchases and sells water for. Supervisor Culhane replied the purchase price is \$2.94 vs \$4.25.

Ray Burke asked what the wholesale vs retail value is for 60,000 gallons of water.  
\$176,400 vs \$255,000

Connie Mosher asked if there has been an effort to find the loss. Supervisor Culhane responded that the water department has discover some problems and corrected them.

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Tom Rivers asked if the problems are corrected is it possible that the retail price could go from \$4.25 to \$3.90. Supervisor Culhane said it is a possibility.

Curtis Strickland asked if we were able to verify that the Village of Albion is charging the correct amount. Ron Mannella replied that it is read through our meters and the village and the town read together.

Sue Smith commented that the unaccounted water appears to peak at certain times of the year. She is wondering if the water could be going somewhere else, perhaps being stolen? Will we be able to determine the problem specifically if we invest in further improvements? Brian replied the town would be closer.

Tom Rivers said although 60,000 gallons seems like a lot if it was 40,000 gallons it seems like that would be acceptable. Brian agreed and said sometimes you can spend too much to correct the loss so the financial return is not worth it. He said the town will need to prioritize what amount to spend to make it cost effective.

available that would target leaks buy district. Brian said you can purchase a portable Dick DeCarlo asked short of purchasing leak detection equipment is there anything leak detector that could be moved to each meter pit but the town would need to install more meter pits to target leaks by district.

Curtis Strickland doesn't understand how a leak can be seasonal, usual leaks get worse they do not correct themselves. He thinks there should be something in our data bases to tell if a district is leaking. Brian replied that the data bases do not give that information and that more meter pits would be needed to determine that information.

Marilynn Miller asked which employees are involved in the entire water processing. Supervisor Culhane replied that Jean Klatt is responsible for the receiving, Carol Claus is the billing clerk and Ron Mannella handles the structural side of the system. Marilyn wondered if additional staff would be needed to handle the extra work needed to figure out the problem and maintain more records to keep a handle on things. Supervisor Culhane thinks the work load can be handled with the present staff.

With no further comments or questions from the public Supervisor entertained a motion to adjourn.

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**MOTION TO ADJOURN**

On a motion of Councilperson Syck, seconded by Councilperson Kast, the motion was

ADOPTED    Ayes 5       Kirby, Culhane, Syck, Smith, Kast  
              Nays 0

Resolved that with no further business, the June 17th special town board meeting is adjourned at 7:50 PM.

Respectfully Submitted,

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Jean Klatt  
Gaines Town Clerk