

East Lyme - Water Meter Replacement Information

The Town of East Lyme Water Department is replacing all residential and commercial 5/8", 3/4", and 1" water meters with Sensus iPERL water meters. This new Sensus technology will allow the East Lyme Water Department to install Advanced Metering Infrastructure (AMI), which is a town-wide network that will provide radio connectivity to all of the water meters. These new meters will automatically transmit meter readings to a secure Sensus data center, eliminating time-consuming manual (on foot) meter readings altogether. Improved accuracy, water leak notifications, water pipe break alarms, and real-time data are some of the many benefits of this new system.

East Lyme water customers will initially be contacted by mail to set up an appointment to receive a new water meter. East Lyme Water Department staff will be performing this meter upgrade. Our staff will need access to each East Lyme home or business to replace the meter and will work with each customer to arrange a convenient appointment time. These appointments are in one-hour windows and can be scheduled over the internet or by phone. These notices will be strategically mailed out over time so that the majority of meter replacements can be scheduled geographically close to each other. Please do not try and schedule an appointment until you receive a notice in the mail.

About the Sensus iPerl Meter and AMI System

The East Lyme Water Department has selected Sensus and the iPERL meter due to their experience, excellent performance record, and benefits that their system will provide to the East Lyme Water Department. Each iPERL meter is covered by a factory-backed 20-year warranty. The iPERL water meters accurately measure and record water usage data and then wirelessly transmits this data to a cloud based Sensus Data Center which is accessed by the East Lyme Water Department. Utilizing this new system, meter readings will be monitored on a daily basis, as opposed to the current bi-annual data collection frequency. By monitoring meter reading information more frequently, East Lyme Water Department customers can be alerted to abrupt or abnormal changes in water usage much earlier than previously possible.

The majority of current meters are connected by a wire to a touchpad on the outside of the house or business near the water meter. A Sensus radio called a "Smartpoint" will be installed on this touchpad to communicate with the new radio network. If the wire and touchpad are not already there, one will be installed as part of the meter replacement along with a Sensus Radio.

Water Meter Installation

When an East Lyme Water Department employee comes to change out a water meter, they will knock on the door and show their identification card issued to them by the Town of East Lyme. All staff will also drive an East Lyme Water Department vehicle that have the "East Lyme Water Department" logo on them.

The water meter is owned by the East Lyme Water Department. All of the adjacent valves and piping are part of the home and is therefore owned and the responsibility of the homeowner. In the event that valves or piping need to be replaced because of age or breakage, the East Lyme Water Department will have a plumber available for repairs. The homeowner is responsible for the cost of the plumber to repair the deficient valves or piping. This cost will be included on a later water bill with a receipt for the repairs that were done.



Figure 1 Newly installed iPERL meter

Installation Timeframe

The Meter Replacement Project will take over a year to complete with installation scheduled to start in October 2021.

Cost of the Meter Replacement Program

The cost of the meter replacement is already factored into the water usage rates so customers do not have to pay separately for their new meter. However, as mentioned above, if there are any deficient valves or piping, the customer may be charged for the repair.

FAQ's about the Water Meter Replacement Project:

Question: Why is the East Lyme Water Department installing and upgrading new water meters?

The East Lyme Water Department will replace all 5/8", 3/4", and 1" water meters (approx. 6,400) in town with Sensus iPERL water meters. The current meters installed have reached the end of their service life and need to be replaced to ensure meter accuracy. These new iPERL meters will have the added benefit of allowing the East Lyme Water Department to install Advance Metering Infrastructure (AMI), which is a town-wide radio system to receive meter readings without having to send employees out to read meters. This will ultimately provide better customer service, greater access to data, increased efficiency, and reduce water system costs by eliminating time-consuming manual (on foot) meter reading altogether.

Question: How does Advance Meter Infrastructure (AMI) work?

A small box called a "Smartpoint", or transmitter, is installed on the exterior of your house or business on a touch pad near the water meter. It is connected to the new water meter inside your home or business and transmits a radio signal to one of the antennas in town. The meter reading is then transmitted to a cloud-based Sensus Data Center that the East Lyme Water Department will access. Each meter has a unique identification number that ensures only your reading is assigned to your account. This system reduces the need for manual meter reading, potentially catches leaks sooner, and provides more accurate readings than the current meters.

Question: Are there benefits to Advance Metering Infrastructure (AMI)?

YES! The water customers in East Lyme will receive the following benefits:

- State of the art technology (offsite daily data retrieval, storage, and backup)
- Saves approximately 10 weeks for 3 employees meter reading on foot and associated office staff time to process the meter readings
- Additional necessary water system preventative maintenance can be performed with extra available time
- Reduced risk of injuries to Town employees and contractors in performing meter reading/maintenance activities
- New meters have no moving parts and therefore are not susceptible to mechanical failure
- Improved customer service through near real-time system monitoring

- High or unusual consumption alerts, prevention of water theft, and identification of large and small leaks in homes or businesses
- Less intrusion onto private property
- Reverse water flow warnings

Question: Who will be replacing the water meters?

The East Lyme Water staff will be installing the replacement water meters in Town. More information will be mailed to you directly via a postcard on how to schedule an appointment when the project moves into your area of the Town. Please do not try and schedule an appointment until you receive a notice in the mail.

Question: When will the water meter replacement begin, and how long will it take?

The Meter Replacement Project will take approximately 1 1/2 year to complete with installation scheduled to starting in October 2021.

Question: Where is my water meter located? What if it isn't accessible?

Water meters are typically located in basements, crawl spaces or utility closets that include your furnace or water heater. If the meter is inaccessible, the installer will leave you instructions on how to make modifications so the change-out can occur and provide information on how to reschedule your appointment.

Question: What if I live in an apartment/townhome/condo?

If all units in your building are served by a single meter, the department will coordinate the meter change-out with either your association and/or your property manager. If your individual residence is served by a single meter, the East Lyme Water Department will be reaching out to you via postcard to set up an appointment.

Question: Do I have to have my water meter replaced?

Yes. Meter replacement is mandatory for all East Lyme Water Department customers. Failure to accommodate meter replacement within a reasonable time period may result in water turn offs, fees for restoration of services, or other fees. This item will be discussed at future Water and Sewer Commission meetings to establish a policy for this situation.

Question: What is involved with a typical installation?

The East Lyme Water Department will install the new water meters. More information will be mailed to you directly via postcard on how to schedule an in-person appointment with a 1-hour window, over the internet or by phone. These notices are timed and sent when the project moves to your area of the town.

East Lyme Water Department staff will need access to meters in the basements, utility rooms, behind locked fences, garages, etc. An adult (minimum of 18 years old) must be present while they work inside the premises. Please make sure that there are no obstructions that may hamper access to the meter. Under normal circumstances, the installation will take approximately 30 minutes. Momentary water service interruptions will occur to change out the meter. East Lyme Water Department employees are required to provide proper identification and will be driving in an East Lyme Water Department marked vehicle when installing the meters. If your meter is outside in a meter pit, an appointment will most likely not be scheduled. East Lyme Water Department staff will knock on the door to advise you that there will be a brief water interruption while the meter is changed. If you are not home when the meter is changed East Lyme Water Department staff will leave a notice on your door that it has been completed.

Question: Is the Sensus iPEARL water meter and Smartpoints safe?

Yes. The power and duration of the radio signal is too low to pose a health risk. The products that make up the system are evaluated for safety and are well below levels specified by the Federal Communications Commission (FCC).

Additional Information about this can be found at <https://sensus.com/rf/>

Question: Will the transmitter radio signal interfere with other electronics?

No. The radio transmission operates in compliance with FCC regulations to avoid interference with other electronic devices.

Question: Will my information be secure?

Yes. Only meter consumption data and meter numbers are transmitted. Personal customer information is not loaded into the transmitter and therefore will not be transmitted.

Question: Will the Town be monitoring my individual water consumption?

No. The East Lyme Water Department does not actively monitor water consumption by individual users. The AMI system is designed to provide the East Lyme Water Department an alert if your meter registers above the consumption

parameters set by the East Lyme Water Department, allowing us to notify the customer of possible leaks, breaks, meter, or system problems.

Question: How is the data from the meter used?

The East Lyme Water Department uses the data from the meters to generate water and sewer bills. The consumption data is also compared to the water production data and evaluated to help gauge where system improvements might be needed and is used for state regulatory reporting requirements.

Question: How will I know the meter is accurate?

All meters are tested and calibrated by Sensus at the factory before shipping. Meters are compliant with the American National Standards Institute and the American Water Works Association standards. All meters come with a 20-year material and accuracy warranty. Each radio frequency device has a unique identification number, which is transmitted along with the meter reading. The unique number is compared to your account record to ensure a match. In case the meter loses connectivity with the data receivers, each meter has a 45-day logging capability for accuracy reconciliation/troubleshooting.

Question: Will the new system impact when I receive my water bill?

Prior to this, mailing invoices was dependent on the completion of the meter reading on foot, which was highly weather dependent. The new Sensus water meters will provide a high level of accuracy and will provide meter readings to the office staff in a timely and consistent manner. This upgrade will allow the East Lyme Water Department to invoice customers with more accurate invoices sent out at regularly scheduled times.

Question: How accurate is my new meter?

The iPERL meter will measure water flow with a high level of accuracy at all flow rates. Because the iPERL provides metering with magnetic technology in a sealed system, there are no moving parts to fail. The lack of moving parts contributes to the meter's long-term accuracy, especially when compared to the aging meters currently in use which become less accurate over time. Because of this increased accuracy, homeowners should be more aware of their water use habits. Customers with leaking faucets, pipes and toilets should have these issues repaired in a timely manner to avoid unnecessarily high bills.