

# Protecting Evert's Water Supply

Addressing Your Questions About Perchlorate



One of the fundamental responsibilities and top priorities of

The City of Evert is providing residents *and* businesses with safe quality drinking water.

Evert's residential water supply is **SAFE. Nothing** is more important to us than that.

In 2015 a water quality test showed the presence of perchlorate in The City of Evert's water wells. Perchlorate is a chemical often associated with firework propellants. When traces of the perchlorate were found, the city's Department of Public Works took prompt steps to protect water quality. The City of Evert began working with public health administration, environmental officials, and Ice Mountain to resolve the perchlorate issue. The City of Evert was able to identify the source of the perchlorate, and implement a plan to remove the chemical from groundwater sources.

As a community member, your water supply comes from diverse sources. Some of the resources that produce water are within the city limits -Twin Creek well field. Other wells are located to the west of downtown Evert -Western well field, all of which are managed by The City of Evert's Department of Public Works. We distribute water from these sources through water mains accompanied by other infrastructure owned, and managed, by the City of Evert.

Ice Mountain provides assistance to the city through technical and scientific support, ensuring quality water and environmental sustainability required for their products. Ice Mountain is an important customer of the city, and has a vested interest in the quality of the water. The services Ice Mountain provides relieve Evert's taxpayers of additional costs. Ice Mountain's initiatives help alleviate local families and small businesses from major water bill and tax increases.

Evert's annual fireworks show will continue to be a family tradition at a new location in 2016.

This past summer, the Evert city council passed a resolution to move the fireworks away from the fairgrounds property, to the city's airport, where drinking water sources will not be impacted. We believe moving the fireworks is necessary to protect Twin Creek well field. Moving the fireworks will prevent additional deposit of perchlorate residue that occurs when fireworks displays are held. Moving the fireworks is a vital step to protecting our Twin Creek well field.

The decision to move Evert's longstanding tradition of fireworks will protect water assets from perchlorate. We hope that Evert residents will understand this decision is an important precaution, and that the new fireworks location will continue to be an exciting Evert family tradition.

## Answers to Common Questions

### 1. Is Evert's water safe to drink?

Perchlorate presence in Evert's water supply is significantly lower than U.S. EPA guidance issued to state, federal, and local water utilities in 2008. The EPA established an Interim Lifetime Drinking Water Health Advisory of 15 micrograms per liter, which the agency states "is a concentration of a perchlorate in drinking water that is not expected to cause any adverse non-carcinogenic (non-cancer causing) effects for a lifetime of exposure." Nonetheless, city leaders are committed to removing perchlorate from groundwater sources to ensure the safety and quality of drinking water supplies. More information can be found at [Interim Drinking Water Health Advisory for Perchlorate](#).

### 2. What is perchlorate?

According to the U.S. EPA, perchlorate is both naturally occurring and a manmade chemical. It can be found naturally in arid regions, or occur naturally in the atmosphere. Perchlorate is used in various industries producing; fertilizers, rocket propellants, explosives, fireworks, and road flares.

### 3. Is perchlorate regulated, and does Evert's water comply with regulations?

Perchlorate is regulated in few states (Massachusetts and California), and other states, including Michigan, as well as the U.S. EPA, are poised to regulate it in the future. In 2008 the EPA established an Interim Lifetime Drinking Water Health Advisory of 15 parts per billion. The 15 parts per billion is the concentration of perchlorate in drinking water deemed acceptable, based on health effect information currently available.

### 4. What is the city's plan for getting the perchlorate out of the water?

Perchlorate is highly soluble, meaning it dissolves and moves easily in water. The city is pumping a portion of the wells in the Twin Creek well field to our waste-water treatment plant, which is increasing our ability to remove the perchlorate from the groundwater system.

The City of Evert is working with state officials to evaluate additional options to remove perchlorate from the groundwater. We have applied for a permit that will allow the city to increase the amount of water that we can purge, and thereby speed up the process of removing perchlorate from the groundwater.

### 5. Is the city making progress? What other steps are being taken to ensure water supply?

Yes. The city has taken steps to safeguard our water and address the concern. Pumping water to the waste-water treatment plant is removing perchlorate from the groundwater; however, there is more work to be done. The city has applied for a state permit needed to remove perchlorate at a faster pace.

Also, the city will be installing a new municipal water well that will be located in the Western well field. Two additional wells that supply the city's municipal system are located in the Western well field. The new well will add capacity, and additional clean water supply, as the Twin Creek well field issues are being addressed.

### 6. How long will it take to remove the perchlorate from the water?

We are working on ways to accelerate the process of removing perchlorate from the groundwater. It is difficult to predict how long the process of removing perchlorate from our water resources will take. Our commitment is to continue the removal process until we are confident that the concern no longer exists.

7. What is perchlorate's effect on human health?

While we are not experts, we have reviewed information available about perchlorate. The U.S. EPA, and others, continue to study potential health effects associated with exposure to perchlorate. The agency has said that human exposure to sufficiently high doses of perchlorate may disrupt how the thyroid gland functions. EPA also cautions pregnant women from significant exposure, due to potential thyroid disruption in unborn fetuses.

More information can be found at [Interim Drinking Water Health Advisory for Perchlorate](#).

8. Where did the perchlorate come from?

The city has worked with environmental experts to identify potential sources of the perchlorate. The close proximity of the fireworks display to the Twin Creek well field is a factor in the presence of perchlorate. Our investigation determined that "firework ash" (residue) is the most likely source of the perchlorate, which is a key chemical in fireworks. The perchlorate has been dissolving into groundwater that supplies the Twin Creek well field. We have eliminated other potential sources of perchlorate through our investigation.

9. Fireworks displays have been in the same location in Evert for many years – why are we just seeing perchlorate now?

We believe the presence of perchlorate is due to the recent high groundwater tables, a combination of more precipitation in recent years, and reduction in large industrial water usage.

10. What has the city done to minimize the impacts of fireworks shows on water quality?

The City Council determined that it was prudent and precautionary to move the location of the fireworks launch site beginning in 2016 to protect Twin Creek water sources. We believe that moving the fireworks to another location will maintain the family traditions so important to the community, while also protecting the water resources that supply the community's drinking water.

11. How long until the city's wells that currently are offline can be used?

We are working on ways to accelerate the removal of perchlorate from the groundwater. It is difficult to predict how long the process will take. Our commitment is to continue the perchlorate removal process until we are confident that the concern no longer exists.

Evert has sufficient water capacity to meet resident and business needs. Still, the city's goal is to address the perchlorate concern as quickly as possible to ensure that long-term needs are sustainable. In that regard, we are assessing several options including the development of a new water well that would increase water capacity, and provide new water well infrastructure to replace some of our older wells. All of these efforts will enable us to purge perchlorate from the Twin Creek well field at a faster pace.

12. Have you sampled soil on the fairgrounds for perchlorate, and what have you found?

Yes. The Osceola County Fair Board approved sampling of soils and groundwater from the fairground property as part of our investigation, and we appreciate their cooperation. Testing confirmed the presence of perchlorate, as we expected would be found in the immediate area of the fireworks launch area.

13. Will these efforts cause our water rates to go up? Who is paying for all this?

The work we are doing is expensive, but necessary to make sure we have quality water for the community. We are sensitive to the fact that Evert residents live on family budgets, and that a rate hike of the size that would be needed to

complete this work would strain most household budgets. Because Ice Mountain has a vested interest in water quality as part of their water purchase contract with the city, they are donating their science, technical expertise, and financial resources to the project. As a result, a rate increase associated with this work is not anticipated.

For more information, please contact

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