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Let’s talk about drinking water quality.

*Clean water is always there because we’re always here*™. With a promise like that, if we ‘talk the talk’, we’d better also ‘walk the walk’. Drinking water quality has been in the media often in recent years, with increased awareness of PFAS chemicals and their long-term effects on the environment. Here’s some further information on this important subject, and the measures District staff and your Board of Commissioners are taking to protect the quality of your drinking water and the aquifer that it comes from.

**What you should know about PFAS**

**What are PFAS?**

Per- and Poly-Fluroalkyl Substances (PFAS) are a family of manmade chemicals that are not found naturally in the environment. Perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) fall within this chemical family and were the most commonly manufactured PFAS.

**What are some ways we are exposed to PFAS?**

Although some types of PFAS are no longer used, some products may still contain PFAS such as food packaging, non-stick cookware, stain resistant carpet treatments, water resistant clothing, cleaning products, paints, varnishes, and sealants, *firefighting foam*, and some cosmetics.

**Are there health effects from PFAS?**

There is evidence that exposure to PFAS can lead to adverse health outcomes in humans. If humans, or animals, ingest PFAS (by eating food or drinking water that contains PFAS), the PFAS are absorbed, and can accumulate in the body. PFAS stay in the human body for long periods. As a result, as people are exposed to PFAS from different sources over time, the level of PFAS in their bodies may increase to the point where they suffer from adverse health effects.

**Where can you learn more about PFAS?**

WA Department of Health
https://www.doh.wa.gov/CommunityandEnvironment/Contaminants/PFAS

WA Department of Ecology

US Environmental Protection Agency
https://www.epa.gov/PFAS
Why, and where is this happening?

Use of firefighting foam
The PFAS found in the Lower Issaquah Valley Aquifer has been attributed to the use of firefighting foam in fire training exercises originating within the City of Issaquah. While the use of that specific type of firefighting foam containing PFAS has stopped, remnants of PFAS still remain in aquifer and groundwater.

The PFAS contained in the firefighting foam have contaminated the underground aquifer and is migrating North from the source to impact District Wells 7, 8 & 9. Based on what we learned from our groundwater model, we stopped production at Wells 7 and 8 and shifted production to Well 9, the well furthest from the potential plume migration.

The Cascade View Zone is not affected
Since the District operates two separate water distribution systems, only the District’s Plateau Zone is affected, not the Cascade View Zone, which is North of SR202.
District PFAS timeline

• Sammamish Plateau Water (District) monitors for PFOA and PFOS as part of the US Environmental Protection Agency’s (USEPA) Unregulated Contaminants Monitoring Rule (UCMR3) used to collect data for contaminants that are suspected to be present in drinking water and do not yet have health-based standards set under the Safe Drinking Water Act. All results are below the UCMR3 minimum reporting limit and reported as non-detect.

• The USEPA replaces previous provisional health advisory levels for PFOA and PFOS with a new combined health advisory level of 70 parts per trillion (ppt).

• City of Issaquah detects levels of PFOS exceeding the USEPA’s health advisory level in one of their wells, shuts down the well, and installs a filtration system.

• The District conducts additional testing and detects minute amounts of PFOS in three groundwater wells (7,8,9) in the Lower Issaquah Valley Aquifer (LIVA). Levels do not exceed the USEPA’s health advisory level, but the District takes proactive steps to protect the water. Expert consultants are retained to develop continuous and intensive monitoring/testing programs, and study groundwater movement.

• The District works with consultants to develop a three-dimensional groundwater model and groundwater monitoring plan. Based on the findings, the District changes the point of withdrawal over to Well 9, the furthest from the potential plume migration and develops an interim Monitoring and Response Plan for Perfluorinated Compounds.

• The District secures a temporary water right to combine production from wells 7, 8 and 9 in order to shift water production to the well with the lowest level of PFAS (Well 9). In addition, the District begins blending groundwater from wells with water from the regional supply purchased through Cascade Water Alliance.

• Shifting water production, while blending groundwater from District wells with increased amounts of water from the regional supply purchased through Cascade Water Alliance keeps PFAS in drinking water down to non-detect levels.

• The District’s Board of Commissioners drafts an interim District Policy Statement on Perfluorinated Chemicals (PFCs).
• The Board of Commissioners adopts a *Drinking Water Quality Policy Statement* (by Resolution 4780) to establish Board policy in relation to drinking water standards, groundwater and aquifer protection, and outreach and transparency.

• The District works with consultants on an in-depth PFAS treatment analysis. The analysis includes evaluating PFAS treatment options, site-specific treatment feasibility, and costs associated with treatment versus the long-term purchase of regional water for continued blending to non-detect levels.

• The District continues to monitor regulations proposed by the Washington State Board of Health. The proposed regulations would require construction of a treatment plant to remove PFAS from the affected wells.

• The District’s Board of Commissioners authorizes the initiation of the design of a water treatment plant to remove PFAS from the affected wells.

• The District continues to follow and comment on the Department of Ecology’s (DOE) and Department of Health’s (DOH) PFAS rule-making activities. With the DOH, the District seeks clarity and timeliness on regulations so that we can respond appropriately and provide water to our customers within the proposed regulations. With the DOE, the District advocates for holding those responsible for introducing PFAS into the environment accountable for remediation. The District needs to add treatment because of groundwater contamination caused by a third party.

• The District submits application to the Department of Ecology to make the temporary water right consolidating wells 7, 8, and 9 permanent to allow the District to produce water from the wells with the lowest PFAS levels.

• The District is completing design and cost estimates of a water treatment plant to remove PFAS from its affected wells.

• As the treatment plant design estimates are being finalized, the District has applied for federal funding to help finance construction of the PFAS water treatment plant. The District is advocating for our customers because the District did not cause the release, but the cost of treatment will affect our customers’ rates. Of the total project estimate of $17.3 million, we have requested $15.715 million to finance the construction of the water treatment plant.
Summary of governmental response and regulatory activities

What others are doing
PFAS have been found in many states throughout the country with many impacted communities being near military bases, airports, and industrial sites, where PFAS have been used. As a result, the use and effects of PFAS have received increased governmental and regulatory attention. This is an ever-evolving issue, but here are some of the latest activities at the local, state, and federal levels.

At the local level
In 2018, the City of Issaquah, Eastside Fire and Rescue, and the Washington State Department of Ecology completed an environmental study and commissioned a report from a third-party consultant that identifies and characterizes occurrences of PFAS in groundwater and soil from the use of specific firefighting foam during firefighting training exercises. The Executive Summary can be found at http://bit.ly/2V9PqXR.

The District provided a significant amount of data and test results to the consultants to support the completion of the study. The District will continue to share information, and advocate for water quality by communicating in an open, engaging manner. As an outcome of the initial environmental report, a second study was commissioned and the results are expected later in 2021.

At the state level
The Washington State Legislature passed two laws restricting the use of PFAS chemicals: one concerning PFAS-containing class B firefighting foam and firefighting personal protective equipment (RCW 70.75A); and one prohibiting PFAS in paper food packaging (such as fast food sandwich wrappers and restaurant take-out boxes) effective January of 2022 (RCW 70.95G).

The Washington State Board of Health has proposed state action levels (SALs) for unregulated contaminants including PFAS. State action levels for PFAS will be regulatory amounts of PFAS considered acceptable in drinking water supplies. Revised drinking water rules will include requirements for monitoring, recordkeeping and reporting, follow-up actions, and other associated requirements for PFAS and other unregulated contaminants with established SALs. The State may be mandating removal of PFAS through treatment processes or the utilization of alternative water supply sources. The rules are expected to be finalized by the end of 2021.

Following a statewide survey of sites where there may have been a high likelihood of the use of products containing PFAS, the Washington State Department of Ecology published a statewide Interim Chemical Action Plan (CAP) for Per- and Polyfluorinated Alkyl Substances. This Chemical Action Plan identifies the potential health and environmental effects of persistent, bio-accumulative, and toxic chemicals, and recommends actions to reduce or eliminate those impacts.

For the DOE’s PFAS Chemical Action Plan documents and updates, go to https://bit.ly/prioritytoxics-pfas. The regulatory process is ongoing and District staff are closely monitoring rule-making activities to understand their impacts to our water production and customers.

At the federal level
In February 2021, the U.S. Environmental Protection Agency (EPA) issued two actions to protect public health by addressing PFAS in drinking water. The agency re-proposed the Fifth Unregulated Contaminant Monitoring Rule (UCMR5) to collect new data on PFAS in drinking water. This new data will improve the EPA’s understanding of the frequency that 29 PFAS are found in the drinking water systems and at what levels. Samples taken as part of this rule will be done between 2023 and 2025. The EPA also re-issued final regulatory determinations for PFOA and PFOS under the Safe Drinking Water Act.

Additional challenges
Currently, there are no federal or state standards for water treatment or environmental clean-up. The District is monitoring the Department of Ecology’s rule-making activities to ensure those responsible for contaminating the groundwater are held accountable for remediating contamination as opposed to our customers funding a water treatment plant through their rates.

This regional issue reinforces the importance of local government agencies protecting your groundwater by executing responsible land use and stormwater management practices. The District will advocate for groundwater interests and sustainability in land use and stormwater management by monitoring codes and policies of these agencies, and providing input on codes and policies that provide long-term protection.
Glossary of key terms

**Aquifer**
An underground layer of water-bearing permeable rock, rock fractures or unconsolidated materials (gravel, sand, or silt).

**Groundwater**
The water found underground in the cracks and spaces in soil, sand and rock.

**Health advisory**
A non-enforceable, non-regulatory notice developed by the USEPA that provides technical information to state agencies on health effects and treatment technologies associated with drinking water contamination.

**Non-detect**
A value that is below the detection capacity or limit of laboratory equipment and available technology.

**PFAS (Per- and Poly-Fluroalkyl Substances)**
A family of manmade chemicals that are not found naturally in the environment.

**Plume**
A concentration of a substance in groundwater that moves in the direction of groundwater flow away from a source point.

**Stormwater**
Water that begins as rainfall or snow/ice melt, which can absorb into the ground, be held on the surface and evaporate, or flow into nearby streams, rivers or lakes.

**Stormwater infiltration**
The process in which stormwater runoff is naturally absorbed into the ground.

**Stormwater injection**
The process in which stormwater runoff is placed into the ground by an injection well, or conduit directly to the aquifer.
Your sewer system is at a crossroads. Here’s what’s happening.

You should be aware of King County’s decision to reduce in priority the building of much-needed and long-planned improvements to the regional sewer system, and the impact that decision has on our ability to meet the needs of current and future customers.

Overview

The District contracts with the King County Wastewater Treatment Division to send our wastewater to their regional facilities for treatment and disposal. Since the District began providing sewer service, King County has planned on the sewer flow from the Sammamish Plateau to be divided: About half of the District’s wastewater would flow to the south around the south end of Lake Sammamish. The other half would flow north through a future-planned northern connection known as the Sammamish Plateau Diversion.

The District has designed its local sewer infrastructure anticipating a northern connection and for several decades has been giving King County notice that our facilities would be reaching capacity to continue to convey all sewerage to the one southerly regional connection.

The issue. When do plans become a reality?

The District is outgrowing the capacity of the current sewer infrastructure. The District currently has only one connection point to the regional sewer conveyance system that is located in the southern portion of the District in Issaquah. (See map on opposite page.)

Since the District has only this one connection point available to the regional sewer conveyance system, we have to direct all wastewater flows from the entire service area to this one connection in the south end. The District is relying on King County to expand its regional conveyance system to include additional sewer infrastructure to meet our growing needs and to serve our current and future customer base.

This is not a new issue.

For a number of years, the District has alerted the County that without the SPD, District facilities would soon reach capacity. We have now reached that point.
In 2013, the District advised County staff of the urgent need to construct this long-planned expansion known as the Sammamish Plateau Diversion (a.k.a. “North Diversion” or “Northern Diversion”).

In 2016, the County advised the District that the Sammamish Plateau Diversion Project planning was underway, only to find out that in 2018, the County had removed the project from its Conveyance System Improvement Plan, citing funding limitations due to the operational failure of the County’s West Point Treatment Plant. This decision to de-prioritize the Sammamish Plateau Diversion was made without notice or conversations with the District.

The challenge. Regional growth mandates require regional sewer infrastructure.

Because the District contracts with King County for sewage treatment and disposal services, we are required to align our long-term sewage system plans with those of the County so that we can send our wastewater flows to the regional sewer conveyance system.

The District needs a second connection in the north to meet capacity needs and to serve its current and future customer base. This second connection is a critical component of both the County’s and our long-term planning, and is key to following our District Wastewater Comprehensive Plan.

To meet the needs of our growing service area, and comply with the County’s Growth Management Act, the District is required to provide water and sewer service to those areas of growth. This becomes more challenging without the additional capacity of a northern connection.

King County regional sewer conveyance system

The above map shows existing King County regional sewer conveyance system and facilities (in red/green) with city boundaries. The District does not have equitable access to regional services as compared to other agencies.

Source: King County Wastewater Treatment Division, “King County Wastewater System with Sewer Flow Scheme.”
**What’s at stake? Sewer system capacity, resiliency, and the environment.**

The District is in a position of having limited capacity to add new connections to the sewer system. If we continue to add new connections to the sewer system, it could result in overflows affecting people’s homes and/or the environment. Knowing these risks, it would be irresponsible for us to continue to add new customers.

An important benefit from having a second connection in the north would be the ability to route wastewater to that connection if the pipeline in the south is compromised during an emergency incident. Without having pipelines allowing for sewer flows to the north, the District is also placed in a position of increased risk for lengthy service disruptions from system failures, earthquakes, or other emergencies.

These are the tough realities we face if the County does not authorize, fund, and build the improvements needed to meet the District’s regional sewer conveyance needs.

**King County’s offer will impact ratepayers.**

On March 22, 2021, King County Councilmember Kathy Lambert, along with King County staff, attended a regular meeting of the District’s Board of Commissioners and during this meeting:

- In spite of planning coordination for decades and the County’s recognition that our local capacity constraints have been impacted by a lack of regional capital improvements, the County finally made an offer to share 50% of the costs with the District to construct improvements to the District’s local sewer system. While the offer is generous, it results in shifting of costs from the regional system to our customers due to the County’s untimely programming of needed improvements.
- County staff denied the District’s request to transfer District local assets to County ownership even though the District meets the County’s planning criteria. This denial perpetuates the District’s lack of equitable access to the regional conveyance system and continues to shift the cost burden to our customers for services that should be regionally provided and funded.
- The County indicated that it will be reprogramming its work on the Sammamish Plateau Diversion Project with completion anticipated in 2030, but similar to past efforts and representations, the County cannot give assurance that the work will be funded or completed.

The Board of Commissioners is currently reviewing the County’s offer but has placed priority on identifying local solutions because we need assurances that our conveyance needs will be addressed, and the best way to ensure that is to take the lead in finding solutions.

**The District is taking action.**

On March 29, 2021, the Board of Commissioners held a Special Meeting and Public Hearing to receive public comments from the residents, businesses, and cities impacted by the sewer capacity issues and the 90-day moratorium enacted by the District.

During the Special Meeting, the Board approved an engineering contract to identify and consider immediate, interim, and permanent improvements. Work on the contract has been initiated and is ongoing. We will provide future updates as developments happen.

For downloadable maps, supporting documents, and the latest developments on this important issue, please visit [LetsTalkAboutOurSewer.org](http://LetsTalkAboutOurSewer.org).
A sewer moratorium is in effect.

On Monday, February 22, 2021, the District’s Board of Commissioners approved Resolution #5018, declaring and imposing a temporary 90-day moratorium on the issuance of Certificates of Sewer Availability and Provision of New Sewer Service where a Certificate of Sewer Availability may not be required. This moratorium is separate from any others imposed by the City of Sammamish because the District is an independent and separate entity.

As of this publishing, the moratorium will expire at midnight on May 24, 2021.

During this 90-day period, no new Certificates of Sewer Availability will be issued in the North Sewer Service Area for:

- Individual single-family residence building permits (new home, remodel) that have not previously paid a full Sewer General Facility Charge for the proposed level of service.

- New development proposals where there are not prepaid full Sewer General Facility Charges for the proposed level of service.

In addition, no new side sewer permits will be issued for existing houses that are not a sewer customer, and are requesting to transition from use of a septic system to sewer service. (Exception: Sewer service connections will be allowed for those properties that have a failing septic system as verified by the King County Health Department).

For more details including Frequently Asked Questions, please visit LetsTalkAboutOurSewer.org.

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The map above shows the affected sewer basins (in salmon) during the moratorium. Affected sewer basins include Northeast Plateau, Beaver Dam, Inglewood East, Tiburon, North Lake Sammamish, and Central Lake Sammamish.
MySPWater puts all the information into your hands, wherever you may happen to be.

Bringing MySPWater to you is our way of taking advantage of advanced tools to help us all be effective stewards of this precious resource. As our customers, you also have ownership in the District, its infrastructure, and its water resources. With more growth and pressures against this finite resource, we all feel the pressure to do a better job of managing its use.

If you’ve wanted to track your water use, conserve water or reduce your bills, MySPWater puts this control in your hands.

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