

CITY OF ISSAQUAH
City Council
Mobility & Infrastructure Committee

6:30 PM
January 10, 2023

MINUTES

Council Chambers, 135 E.
Sunset Way, Issaquah WA

COUNCIL AND ADMINISTRATIVE PERSONNEL PRESENT

Committee Members:

Russell Joe, Chair
Barbara de Michele
Zach Hall

Administration/Staff:

Andrea Snyder, Deputy City Administrator
Chris Grabowski, Deputy City Clerk

CALL TO ORDER

Chair Joe called the meeting to order at 6:31 PM.

PUBLIC COMMENT

No one spoke at public comment.

APPROVAL OF MINUTES

- a) Minutes of November 8, 2022. Deputy Council President Hall moved (seconded by CM de Michele) to approve the minutes as presented. Motion passed 3 – 0.

AGENDA ITEMS

- a) **ID 1120 Public Works Street Standards Update: Street Typologies**

After the staff presentation, the following individuals spoke during public comment:

- Julian Mydlil, vice-chair of the Transportation Advisory Board (TAB), spoke about TAB's input, including its rationale for choosing Option #2 under Core Streets.

Committee comments included the following:

- Thanked staff and TAB for their efforts and prompt responses to committee questions.
- Appreciate the pedestrian and cyclist approach to the typologies.
- Committee supported staff and TAB's recommendations.

ADJOURNMENT

There being no further business, the meeting was adjourned at approximately 7:53 PM.

Russell Joe, Chair

Chris Grabowski, Deputy City Clerk



Staff Report

ID # 1277 – On-Site Septic System IMC Update

Meeting Date February 27, 2023

Department PW - Public Works

Staff Lead Matthew Ellis, Utility Engineering Manager

Attachments A. On-Site Septic System Technical Memo

Direction Needed from Committee

The purpose of tonight's Council Mobility and Infrastructure Committee meeting is to provide the Committee with an opportunity to review and provide feedback on the proposed on-site septic inspection and sewer extension policy recommendations. Does the Committee agree with the following?

- Proposed changes to septic system inspection requirements that require more frequent testing, but no enforcement?
- Proposed tiered approach to sewer extensions, focusing on sewer service in critical areas?
- To support sewer extensions with the sewer fund which would share costs among rate payers and customers converting to sewer service?

Recommendation

As part of the update to the Sewer System Master Plan, the Administration recommends changes to the Issaquah Municipal Code relating to on-site septic system inspection requirements, and proposed policy revisions regarding sewer extensions. More specifically, the Administration recommends:

1. The City would require regular inspections of septic systems.
 - a. The proposed change would require all on-site septic systems to be inspected. This is a change from existing requirements, that only requires septic systems located within 200 feet of sewer to test their systems. Systems would need to be inspected every 3 years for gravity septic systems, and every year for pumped or mound systems, in accordance with King County Board of Health requirements.
 - b. Currently, there is no City enforcement action if the testing does not take place and no enforcement action is being proposed.
2. The City would extend sewer to properties within or adjacent to environmentally sensitive areas such as
 - a. flood plains and shoreline buffer areas (within 20 years),
 - b. stream/wetland buffers and high water table areas (within 30 years), and
 - c. Critical Aquifer Recharge Areas (within 40 years).

The City would also increase the number of locations of water sampling and monitoring for fecal coliform.

Background

Issue

There are approximately 400 private septic systems within the City of Issaquah. Of these, 89 are located in critical areas, including stream buffers, within the 100-year flood plain, or adjacent to wetlands. Many of these septic systems have exceeded their engineered life expectancy, with little to no existing verification process to document continued maintenance and/or functionality, ensuring the effluent is successfully treated. Additionally, new environmental regulations and standards have been established since many systems were installed within the City. Current City code supplements the King County Board of health inspection requirements. However, additional language is needed to standardize septic inspections, and to ensure fecal coliforms or other human pathogens are significantly reduced or prevented from entering Issaquah Creek or other Waters of the State.

The Issaquah Creek Basin has been listed by the Washington State Department of Ecology as an impaired water body, under section 303(d) of the Clean Water Act with a related regulatory requirement to monitor the total maximum daily load (TMDL) for fecal coliform of 100 cfu/100mL. Poorly functioning or failing onsite septic systems have been identified by many jurisdictions as a contributing factor to reduced water quality and increased fecal coliform contributions. Any failing septic systems situated near Issaquah Creek, or any tributary could put the City at risk of exceeding regulatory TMDL requirements.

Proposal

In response to prior community input and concerns, the City is actively engaged in a proactive surface water sampling effort, designed to evaluate water quality and fecal coliform contributions within critical areas. The presence of high ground water, non-standardized laboratory analytical testing procedures, variable environmental factors, and poorly maintained septic systems can contribute to the number of pathogens entering these water bodies.

Attached is the On-Site Septic System Code Revision Summary Technical Memorandum. This memo summarizes the roles and responsibilities of both King County Board of Health (KCBOH) and the City in OSS system management and proposes new policy and code revisions for requiring more standardized and proactive inspections, and prioritizing sewer extensions into unsewered neighborhoods. The updates considered in this presentation and Technical Memorandum seek to strengthen City policy prioritizing sewer extensions in areas where on-site septic systems can impact critical areas, and enforce the code set forth in KCBOH Title 13, "On-Site Sewage."

In addition to revising the Issaquah Municipal Code for septic inspection requirements, the Administration is proposing policy to proactively extend sewers into unsewered neighborhoods located within or adjacent to critical areas. This effort would provide sewer availability to properties located within the 100-year flood plain, within stream buffers, adjacent to shorelines of the state, areas with documented wetlands, and within our critical aquifer recharge area. The Administration proposes to utilize a tiered approach to incorporate these sewer extensions into the City's capital improvement plan and finance the extensions utilizing available sewer funds. Below is a table outlining the tiered approach:

Tier	Description	Timeline for Extension	Properties Impacted		
			COI Service Area	Samm Plat Service Area	Total
Tier 1	100-year flood plain, shoreline buffer boundary, and commercial/industrial properties	20 Years	34	9	43
Tier 2	Stream buffers, wetland boundaries and documented areas with high ground water	30 Years	30	2	32
Tier 3	Critical Aquifer Recharge Area (CARA) 1-10 year wellhead capture zone	40 Years	13	1	14

Section 8.4 of the On-Site Septic System Code Revision Summary Technical Memorandum provides additional information on the tiered approach for sewer extensions.

Proposed policy regarding sewer extensions is not intended to force sewer connections, but to provide the opportunity to connect to the City's sewer system when the need presents itself, while also standardizing and strengthening the inspection requirements for all septic systems located within the City. The proposed policy is intended to be a planning document to plan for extensions within unsewered neighborhoods adjacent to critical areas. Part of this process will be to find a funding mechanism that facilitates extensions and reduces risks without creating an undue burden on those impacted, while also not creating a huge impact on existing rate payers.

Section 6 of the Technical Memorandum outlines existing City policies and plans that are in agreement with the recommendations included in the presentation.

Impacts – Financial and Community

Policy relating to on-site septic system management and corresponding code revisions will not have a financial impact on the City and can be achieved with existing staff and resources.

The Administration has identified multiple funding options to support sewer extensions. Section 8.5.2 of the On-Site Septic System Code Revision Summary Technical Memorandum provides information on these alternative funding mechanisms. Because extensions are recommended due to the TMDL for Fecal Coliforms in Issaquah Creek, and costs can be disproportionately expensive in the flood plain, the Administration recommends supporting sewer extensions through the City's sewer fund. The Administration has performed a preliminary sewer analysis for sewer extensions within the proposed tier 1. Within the City's service area, there would be five sewer extensions proposed within the next 20-year timeframe. The cost to the City for these extensions would range between \$200,000 and \$1,000,000 (in 2023 dollars), depending on distance to the nearest public sewer main, types of materials used, obstructions within the right of way, and number of lots served. Over the course of 20 years, the City's sewer fund can support these extensions.

Under this proposal, when a property owner connects to a newly extended sewer, the following costs (in 2023 dollars) would be incurred:

Property Owner Cost	Estimated Cost	Code
Site Alteration Permit Fee	\$3,307.50	3.64.010
Side Sewer Permit Fee	\$90.00	3.65.040(C)
General Facility Charge	\$2,124.00	13.70.020
Average Cost for Side Sewer	\$9,000.00	
Grinder Pump (Potential cost in critical areas)	\$15,000.00	
Total Connection Cost	\$29,521.50	
Sewer Bi-Monthly Rate (Min.)	\$142.24	13.70.040

Timing & Next Steps

On Site Septic System management is one element of the Sewer Master Plan development. Adoption of the overall master plan will be completed by the end of December. Below are major milestones to complete the master plan:

- February 2023 – OSS Policy Presentation to Mobility and Infrastructure
- March 2023 - Capital Improvement Plan development
- July 2023 – Draft Sewer Master Plan presentation to Environmental Board
- August 2023 – Draft sewer master plan presentation to City Council
- September 2023 – SEPA review, and develop code revisions
- October 2023 – Formalize on-site septic system inspection program
- November 2023 – Submit sewer master plan to the Department of Ecology
- December 2023 – City Council formally adopts the sewer master plan.



Technical Memorandum

To: Matthew Ellis, P.E.
City of Issaquah

From: Shannon Saramaa, P.E.

Date: 02/22/2023

Subject: On-Site Septic System Code Revision Summary

1. Introduction & Background

1.1 Introduction

The City of Issaquah (City) seeks to update Issaquah Municipal Code for On-Site Septic (OSS) Systems as part of the Sewer System Master Plan update in order to transition unsewered properties to sanitary sewer in critical areas. The last update to the Sewer Master Plan was in 2002. The new updates will include a more comprehensive and up-to-date sewer conveyance model and outline proposed policy updates.

This memorandum outlines the background of OSS systems in the City, existing code, roles and responsibilities, and proposed policy for mitigating OSS system related water quality issues by standardizing OSS system inspection and clarifying sewer connection requirements in the Issaquah Municipal Code.

Data that was reviewed to inform the recommendations presented herein include:

- Washington Administrative Code (WAC)
- King County Board of Health (KCBOH)
- Issaquah Municipal Code (IMC)
- Public Works Engineering (PWE) Standard Operating Procedures (SOPs)
- OSS system inventory
- Water quality monitoring results
- City code from neighboring communities within King County

1.2 Background

1.2.1 King County Role

KCBOH Code governs inspection frequencies for OSS systems, requirements for connection to sewer, and permits for OSS installation, repairs, and replacements. OSS related code is included in Title 13 of KCBOH Code, On-Site Sewage, with the following noteworthy sections and content:

- BOH 13.04.050 Connection to public sewer
 - Connection to sewer required if OSS system is within 200 feet of available public sewer
- BOH 13.60.010 Monitoring of residential, community, or commercial systems
 - OSS minimum frequency of preventative maintenance and performance monitoring (Table 13.60-1)