



South Tacoma Groundwater Protection District – Consideration for a Moratorium

City of Tacoma | Planning and Development Services
City Council Study Session
September 20, 2022



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●●● Presentation Overview




Purpose of the Meeting: Present Planning Commission recommendation pertaining to the South Tacoma Groundwater District consideration of a moratorium and get Council direction on next steps.

1. Background
2. Planning Commission Recommendation
3. Agency Roles and Responsibilities in Groundwater Protection
4. Commission Perspective on Moratorium
5. Potential Next Steps

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● ● ● Planning Commission Process




Date	Actions
June 28, 2022	Council adoption of Amd. Sub. Res. #40985
July 6, 2022	PC review – Scope, Process, and Planning Context
July 20, 2022	PC review – Agency Perspectives
July 27, 2022	Community Informational Meeting and Public Comment
August 3, 2022	PC review – public comments, land use, permitting, fire PC deliberation of Findings of Fact and Recommendations
August 17, 2022	PC Findings of Fact and Recommendations
August 27, 2022	Deadline for PC per Res #40985

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● ● ● Commission Recommendations



The Planning Commission Concludes:

- A moratorium is warranted for underground storage tanks, metal recycling and auto wrecking, vehicle service and repair, and industrial vehicle service and repair.
- Duration: 1 year
- Work Plan: Incorporate into the STGPD Code Amendments for 2023

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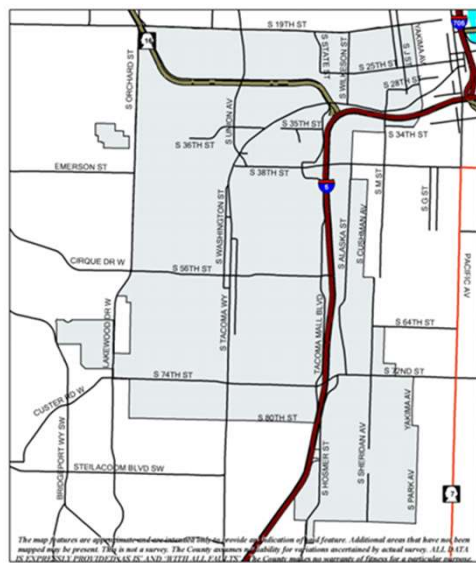
Coordinating Agencies & SMEs



Agency	Roles and Responsibilities
Tacoma Water	<ul style="list-style-type: none"> Maintains wells that access the south Tacoma aquifer. Conducts water quality testing and compliance.
City's Planning and Development Services	<ul style="list-style-type: none"> Permit authority for land use, building code, site development, critical areas Maintains the STGPD regulations. SEPA Lead Agency
Tacoma-Pierce County Health Department	<ul style="list-style-type: none"> Regulates/inspects businesses with hazardous substances on site and infiltration systems meeting certain criteria.
City's Environmental Services	<ul style="list-style-type: none"> Administers Stormwater Management Program. Inspects businesses for source control, pollution prevention, stormwater facilities and environmental compliance.
City's Fire Department	<ul style="list-style-type: none"> Administers Fire Code pertaining to hazardous materials; emergency response.

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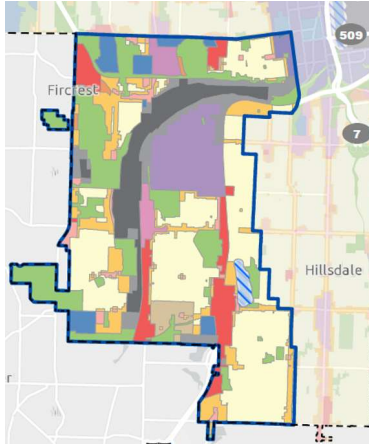
Groundwater Protection District (STGPD)



- Created in 1988 as an overlay zone in Title 13 of the Tacoma Municipal Code.
- Encompasses the South Tacoma aquifer recharge area.
- Created to protect aquifer drinking water from contamination.
- Boundaries expanded east past I-5 in 2006.
- Updated in 2011 to allow stormwater infiltration.
- Applies to businesses/commercial uses

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STGPD: Zoning Overlay



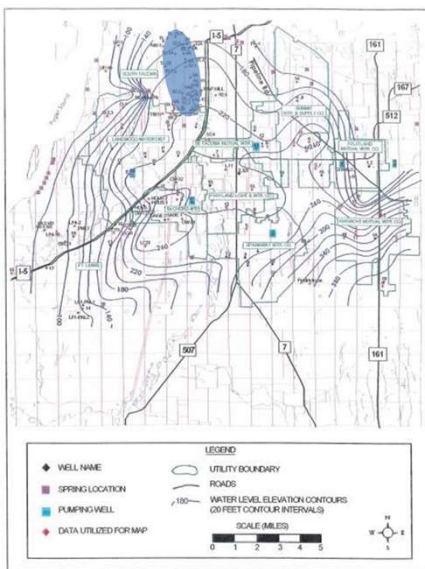
Prohibited uses

- Chemical manufacture and reprocessing.
- Creosote/asphalt manufacture or treatment.
- Electroplating activities.
- Manufacture of Class 1A or 1B flammable liquids.
- Petroleum and petroleum products refinery.
- Wood products preserving.
- Hazardous waste treatment, storage, or disposal facilities.

Other Standards for storage, stormwater infiltration, spill prevention and inspections.

Above: Future Land Use Map, One Tacoma Comprehensive Plan

South Tacoma Aquifer



- The South Tacoma Aquifer System is generally composed of three aquifers: The Shallow Aquifer, the Sea Level Aquifer and the Deep Aquifer
- The recharge area for the shallow aquifer is estimated to be approximately 180 square miles in area.
- In general, ground water moves from the southern part of the greater upland area northward in each aquifer to discharge along the margins of Puget Sound and the lower Puyallup Valley.

● ● ● South Tacoma Wellfield



Tacoma has a total of over 55 MGD* of in-town groundwater Capacity. We have the ability to pump at least 40 MGD at any given time. A majority of this capacity is located in aquifers under South Tacoma:

- 13 wells along South Tacoma Way – highly productive
- Wells range in capacity from 0.6 MGD to 10.5 MGD
- Wells discharge to the Wells Pipeline
- The Wells Pipeline carries the water to two Treatment Facilities
- South Tacoma wells Can Produce over 33 MGD, Also Have several other wells that produce an additional 7 MGD

*MGD = Million gallons per day

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● ● ● Tacoma's Groundwater



- Wells are less affected by droughts than are river flows and add valuable diversity to the sources available to Tacoma Water. Though they normally make up only ~5% of our produced water, in years when the River Source is stressed, they may be used to provide up to 40% - 50% of our summer demand.
- Tacoma Water conducts sampling at 10-12 different locations semiannually throughout the District to monitor aquifer health and serve as an early warning of potential contaminants before they reach our production wells.
- Results from the monitoring well samples have not shown any areas of concern. Additional samples/analysis for specific contaminants have been periodically added per recommendation from TPCHD.

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● ● ● Groundwater Protection



Tacoma's groundwater is protected by carefully monitoring and managing activities in the areas of the City that recharge the Aquifer system:

- Tacoma Water, Tacoma/Pierce County Health Department (TPCHD), City of Tacoma Environmental Services, and City of Tacoma Planning and Development Services work together on all matters of development/land use within the STGPD
- All development/business activity within the STGPD is permitted and regulated per TMC 13.06.070D
- Tacoma Water contracts with TPCHD to implement STGPD requirements. TPCHD submits quarterly reports to Tacoma Water detailing inspection/correction activities

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● ● ● Tacoma-Pierce County Health Department



STGPD Focuses on Business Pollution Prevention

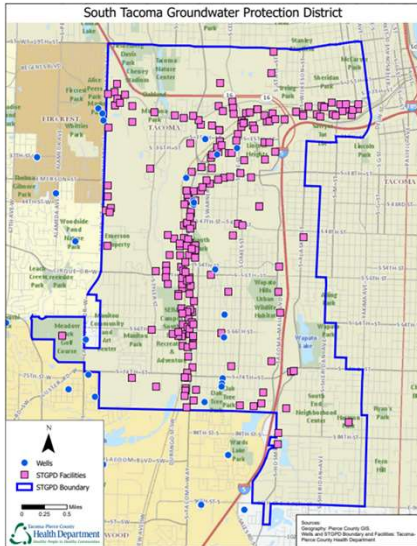
- Proper hazardous substance storage, management and disposal.
- Spill prevention.
- Underground (UST) and above ground storage tanks (AST) maintenance.
- Infiltration system maintenance.



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STGPD Permitted Facilities

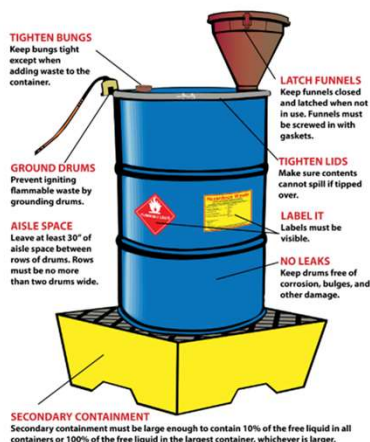


- 205 permitted facilities.
- Threshold: Businesses with 220 pounds (35 gal) of hazardous substances and/or have stormwater infiltration systems.
- Some business types include:
 - Automotive (repair, painting, supply).
 - Manufacturing.
 - Gas stations.
 - Apartment complexes.
 - Schools.
 - Big box and paint.
- Inspections and enforcement.

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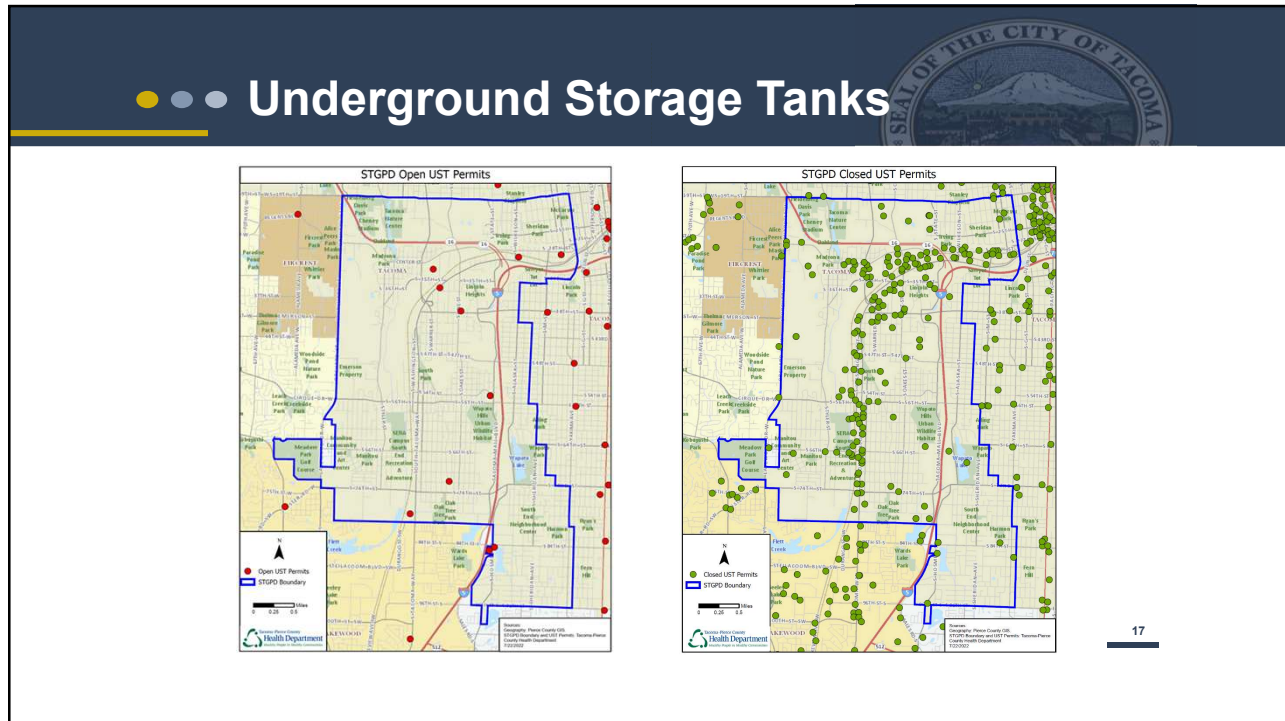
Hazardous Substance Storage



- Hazardous substances are stored in containers (5-gal buckets, 55-gal drums, totes), above ground storage tanks (ASTs) or underground storage tanks (USTs)
- They must be:
 - Designed, located, operated and maintained to not endanger health or the environment.
 - Double walled or within secondary containment.
 - Within secondary containment sufficient to contain 10% of the volume of all containers or 100% of the largest container.
 - Closed, except when adding or removing materials.
- USTs are also regulated by Department of Ecology's Underground Storage Tank program.
 - USTs conduct corrosion and leak prevention testing.

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● ● ● City of Tacoma Stormwater Management Program

- The City of Tacoma has been issued a SW NPDES Permit by the Washington State Dept. of Ecology. Environmental Services administers the Permit for the City.
- The Permit requires the City to have a Stormwater Management Program and to implement actions and activities that are protective of surface water and groundwater.
- The Permit requires Tacoma to make low impact development (LID) the preferred and commonly-used approach to site development. One element of LID is stormwater infiltration where feasible.
- All construction proposals are reviewed for compliance with stormwater requirements.
- For projects proposing to infiltrate stormwater in STGPD, review by the City of Tacoma and TPCHD is completed to ensure that the project complies with all appropriate requirements before the facility is constructed.
- ES inspectors provide technical assistance to businesses and residents to ensure Tacoma's codes and regulations are being followed for ongoing business operations.
- ES has a progressive enforcement policy to ensure regulations are followed.

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Stormwater Management Manual (SWMM) and ESD17-01

SWMM

- Equivalent to Ecology's Stormwater Management Manual for Western Washington and as such is protective of receiving waters, including both surface waters such as creeks, lakes and Puget Sound and groundwater
- Outlines stormwater mitigation requirements for new development and redevelopment projects
- Includes information of operational and structural Best Management Practices for ongoing business operations

ESD17-01

- Within the South Tacoma Groundwater Protection District, additional protective requirements have been enacted through ES Directive ESD17-01 for stormwater infiltration. This document outlines when additional stormwater mitigation measures are required for new development and redevelopment activities in the South Tacoma Groundwater Protection District and includes coordination with the Tacoma Pierce County Health Department.

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Role of Fire Code

- Applicability: Processes, occupancies, storage that have potential to harm people, property (which includes groundwater)
- Common permits: Spray finishing, mobile fueling, repair garage
- Monitoring: Annual outreach to businesses, twice minimum for businesses with enough hazardous materials
- Location standards:
 - Specific limitations to certain types of storage (outdoor tanks) in non-industrial zones,
 - Separation distances based on type of material and volume

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Planning Commission's Recommendation



- The Planning Commission's Conclusion and Recommendation:

“That the City Council should consider enacting a moratorium on permits for new and expansion of metal recycling, auto wrecking, vehicle service and repair, vehicle service and repair – industrial, as well as new underground storage tanks, within the South Tacoma Groundwater Protection District, for a duration of one year, to prevent the vesting of new land uses that may pose a risk to groundwater resources until the Groundwater Code Update can be complete in 2023.”

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Other Information Considered



1. Comprehensive Plan Policies
2. Industrial permit activity in South Tacoma Groundwater Protection District
3. Non-interim Tideflats and Industrial Land Use Amendments
 - Prohibited smelting, mining and quarrying, coal facilities and certain chemical manufacturing
4. Use allowances in M-2 Heavy Industrial Zoning District
 - Acid manufacturing, animal slaughter, and fat rendering prohibited
5. Potential impacts to non-industrial uses
6. Potential impacts to existing uses
7. Known soil contamination

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Planning Commission's Recommendations

1. **The Work Plan for One-Year Moratorium** can be the "Work Plan for STGPD Code Amendments", with its scope and implementation schedule properly adjusted according to the need of the moratorium.
 - **Community Engagement and Outreach** needs to be enhanced, especially engaging the business community.
 - **Consultant Resources** should be considered to evaluate the impacts of climate change on water resources.
 - **Evaluate stormwater infiltration procedures and soil testing**
2. Pursue **regional collaboration** to protect groundwater resources
3. Consider programmatic partnerships and funding to **accelerate contaminated soil cleanup** within the aquifer recharge area
4. **Economic Green Zone** is a critical effort to re-evaluate the future of industrial use and activity in South Tacoma and to respond to broader community concerns regarding air quality, traffic, and land use compatibility. The City Council is recommended to fully fund and staff this important endeavor.

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Tentative Schedule

If the City Council determines to move forward the moratorium consideration for public hearing:

Dates (tentative)	Actions
Sep. 20, 2022	Study Session – Review PC Recommendations
Oct. 4, 2022	Resolution – Set Public Hearing Date
Oct. 26, 2022	Community Meeting (by Staff)
Nov. 1, 2022	Public Hearing
Nov. 8, 2022	Study Session – Debrief Public Hearing and Review Work Plan
Nov. 29, 2022	Ordinance (First Reading)
Dec. 6, 2022	Ordinance (Final Reading); Moratorium Effective

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