Multnomah Rural Fire Protection District No. 10

December 30, 2022

Lisa M. Estrin, Senior Planner
Multnomah County Land Use Division
1600 SE 190th Ave.
Portland, OR 97233

Re: T3-2022-16220

Dear Lisa,

The Board of Directors of Multnomah County Rural Fire Protection District No. 10 would like to submit the enclosed resolution, report, and recommendation to be considered in the Land Use Division's evaluation of the Portland Water Bureau Treatment Plant application.

If you would like to have the electronic version, I will be happy to email it to you. Please email me at MCFire10@gmail.com.

Thank you for your consideration.

Susan K. Martin for Board of Directors

Enclosure

BEFORE THE BOARD OF DIRECTORS FOR
MULTNOMAH COUNTY RURAL FIRE PROTECTION DISTRICT10

FOR THE PURPOSE OF CONVEYING TO MULTNOMAH COUNTY LAND USE PLANNING THE POSITION OF RURAL FIRE PROTECTION DISTRICT 10 REGARDING A PROPOSAL BY THE PORTLAND WATER BUREAU TO CONSTRUCT AND OPERATE AN URBAN WATER TREATMENT AND FILTRATION PLANT WITHIN THE SERVICE AREA OF FIRE DISTRICT 10	))))))))	RESOLUTION R-3-2022

WHEREAS, Rural Fire Protection District 10 (RFPD10) is responsible for the provision of fire and emergency services in the rural portion of southeast Multnomah County; and

WHEREAS, the Portland Water Bureau seeks land use approval to construct and operate an urban scale water treatment and filtration plant on a 95+/- acre site located within the service area of RFPD10 (Case#T-3-2022-16220); and

WHEREAS, the proposed project includes the construction of raw and finished water pipelines to be located within rural public roads ROW; and

WHEREAS, the Multnomah County Comprehensive Land Use Plan, states:
"Strategy 11.17-2: **Encourage police, fire protection, and emergency response service providers to review land use proposals for, <u>among other factors as determined by the agency,</u>** (emphasis added) sufficiency of site access and vehicular circulation and, for fire protection purposes, the availability of adequate water supply, pressure, and flow, whether provided on-site or delivered from off-site." * ; and
* Multco Comprehensive Plan, Chapter 11, page 11-15

WHEREAS, because of the unprecedented large scale of the proposed development, lengthly construction duration, potential

impacts on fire and emergency services to residents of RFPD10 and creation of hazardous conditions, the Board of Directors for RFPD10 determined a formal response is required; and

WHEREAS, the Board of Directors for RFPD10 has carefully reviewed and evaluated information provided by the Portland Water Bureau and other relevant information and generated a position paper attached hereto as "EXHIBIT A"; and

WHEREAS, the Board of Directors for RFPD10 has provided the opportunity, received and considered public comment on January 18th and November 29th, 2022 regarding the Portland Water Bureau proposal and "EXHIBIT A"; now therefore

BE IT RESOLVED:

1.) That the Board of Directors for RFPD10 adopts "EXHIBIT A" and directs that it be conveyed to Multnomah County Land Use and Planning for inclusion in the record for Case#T-3-2022-16220 conditional use process for the proposed Portland Water Bureau treatment and filtration plant.

2.) The Board of Directors for RFPD10 reserves the right to submit additional information if deemed appropriate in the future.

ADOPTED by the Board of Directors for RFPD10 this 20th day of DECEMBER, 2022

Michael McKeel, Chair

Exhibit A

Portland Water Bureau
Proposed Water Treatment and Filtration Plant and Associated Pipelines
Background, Findings, Conclusion and Recommendation

Multnomah County
Rural Fire Protection District 10
December, 2022

Executive Summary

The Portland Water Bureau proposes to construct and operate a water filtration and treatment plant within the service area of Multnomah County Rural Fire Protection District 10 (RFPD10). RFPD10 is encouraged to review land use proposals and provide input to Multnomah County Land Use Division on matters related to fire and emergency services.

This report presents relevant information about RFPD10; County roads that provide the sole means of access for emergency response and also contribute to calls for emergency service within the RFPD10 service area; a summary of the proposed development and findings of the Board of Directors for RFPD10.

Based on the above, the Board of Directors has concluded that the proposed construction, development and operation as proposed by the Portland Water Bureau, is unable to meet three criteria required for approval of a Community Service Use. Therefore, denial of the conditional use permit is recommended.

Introduction

The Portland Water Bureau (PWB) proposes to build a water filtration and treatment plant on a 90+ acre site (as well as related pipelines) located within Multnomah County Rural Fire Protection District 10 (RFPD10). The proposed site is located on the southeastern edge of RFPD10 between SE Carpenter Ln. and SE Bluff Rd.

The proposed filtration and treatment plant is subject to the provisions of the Multnomah County Comprehensive Plan and associated Land Use Ordinances. The proposed use will be treated as a "Conditional Use" in a "Multiple Use Agriculture" zone. As such, the proposed use must be found consistent with "conditional use approval criteria" as well as applicable policies of the Multnomah County Comprehensive Plan.

The Comprehensive Plan states:
"Strategy 11.17-2: **Encourage police, fire protection, and emergency response service providers to review land use proposals for, among other factors as determined by the agency,** (emphasis added) sufficiency of site access and vehicular circulation and, for fire protection purposes, the availability of adequate water supply, pressure, and flow, whether provided on-site or delivered from off-site." *

* Multco Comprehensive Plan, Chapter 11, page 11-15

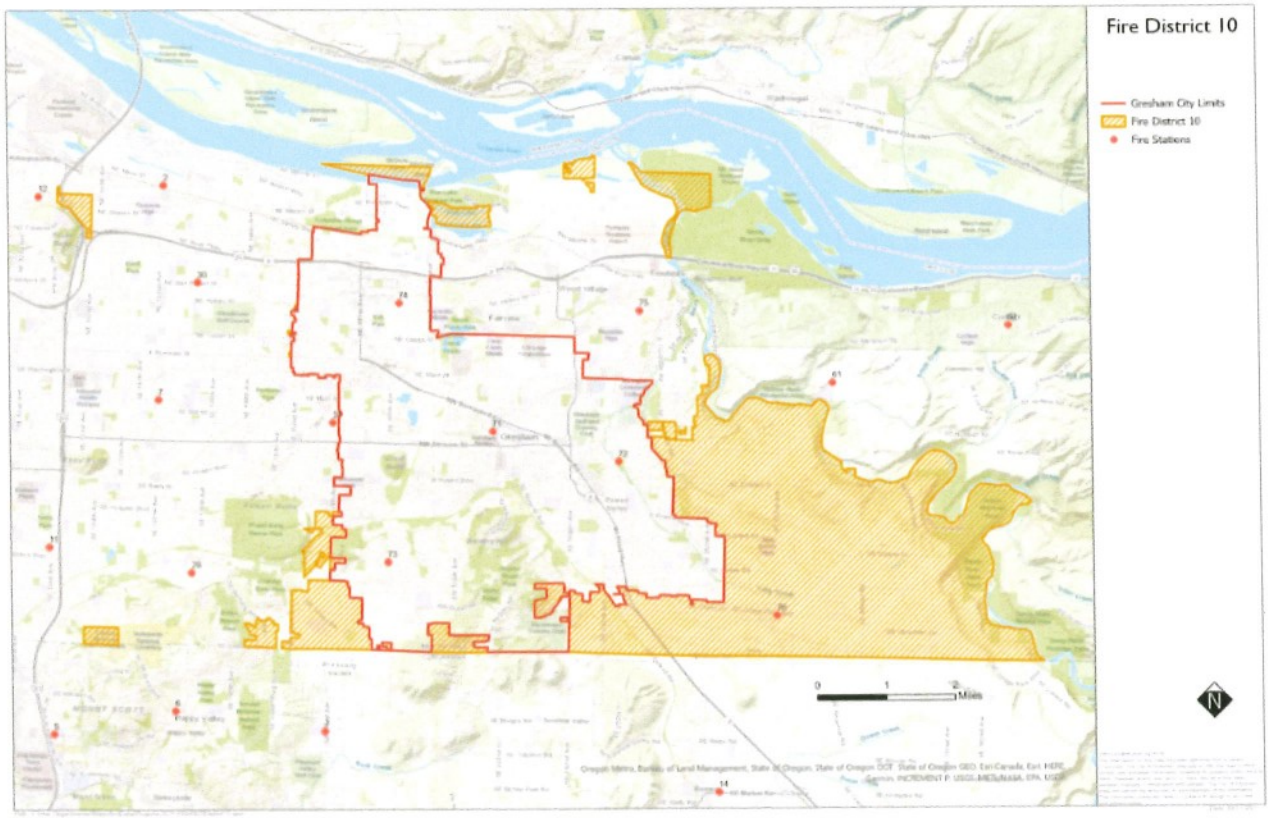
As the primary provider of fire and emergency services for this area, it is incumbent on RFPD10 to evaluate the proposed use and determine the ability of RFPD10 to service the proposed use as well as evaluate potential impacts/risks/hazards to the health and safety of the citizens that reside and work in the district's service area. This document addresses these objectives.

About RFPD10

RFPD10 annual budget for FY22-23 is $2,686,390. This amount includes personal services, contract services, equipment, facility maintenance and debt service. The District currently levies $2.8527/1,000 assessed value which represents the maximum allowed.

The primary service area of RFPD10 encompasses approximately 14 square miles bounded by the Clackamas County line on the south and east, City of Gresham to the west and the Sandy River to the north. The population of this primary service area is approximately 3,500*.

* Source: Multnomah County DART



The table below shows land use zones, acreages and number of tax lots for each zone type.* The majority of the area has been designated as "Rural Reserve" by Metro.

ZONE	ZONE_DESC	GIS_ACRES	TAXLOT_COUNT
CFU	COMMERCIAL FOREST USE	1924.55	130
CFU4	COMMERCIAL FOREST USE	52.91	3
GGO	NSA, GENERAL MANAGEMENT, OPEN SPACE	33.42	3
LDR-SW	LOW DENSITY RESIDENTIAL-SPRINGWATER	18.88	1
PHRC	PLEASANT HOME RURAL CENTER	5.67	10
MUA20	MULTIPLE USE AGRICULTURE	3337.18	960
OCI	ORIENT COMMERCIAL INDUSTRIAL	51.31	48
OR	ORIENT RURAL CENTER RESIDENTIAL	152.46	93
RR	RURAL RESIDENTIAL	643.57	160
EFU	EXCLUSIVE FARM USE	3518.11	304
	Total	9738	1712

*Multnomah County DART

Nearly 91% of the area serviced by RFPD10 is zoned for Forest or Agricultural Uses.

* RFPD10 includes other areas including the Interlachen area near Blue Lake and the City of Maywood Park as well as several areas along the southern boundary of Gresham. RFPD10 provides service to Maywood Park through a service contract with the City of Portland . All other RFPD 10 areas and facilities are serviced through a contract with the City of Gresham. Additionally, RFPD10 owns Station 75 in Troutdale and the Fire Training Center on NE 192nd Ave.

RFPD10 Station 76 (located at the corner of SE Dodge Park Blvd and SE 302nd Ave) services all calls in the primary service area described above. Station76 (constructed in 2015) is staffed with 3 firefighters 24/7 (via contract with City of Gresham). One engine that carries 750 gallons of water is available for calls. A back-up engine is parked here except when used to replace other city engines when out of service.

A brush rig is also parked at this station but available for use throughout the Gresham Fire service area.

Specialty response services including Hazardous Materials*, Confined Space Rescue and supplemental water tankers are not available at Station 76. These services must be dispatched from GFES stations in Gresham or Clackamas County stations.

* At this time, future availability of this this service is in question due to funding issues

The 2018 response data for Station 76 included 461 medical calls and 131 non-medical calls. The 2019 data included 500 medical calls and 107 non-medical calls. Station 76 engine and crew are also dispatched as needed to support calls in areas outside the district.

While calls in RFPD10 primary service area have remained relatively constant in recent years, the same is not true within the the rest of the Gresham Fire and Emergency (GFES) service area. Between 2003 and 2019, non-medical calls increased by more than 118% and medical calls increased by 180%. At the same time, daily minimum staffing has not increased in the last 20 years. GFES firefighters per 1000 residents are significantly lower than comparable Oregon cities.

The Gresham Progress Board has established a response-time standard for the GFES: "to arrive on scene within 5 minutes or less on 90% of all calls." Station 76 is currently unable to meet this performance standard.

The National Fire Protection Association (NFPA) also sets standards for initial and full response times. Although Station 76 is not specifically evaluated, GFES, in general, is not meeting these standards.

Station 76 meets NFPA standard for "First Unit Availability."

An important factor affecting response times at Station 76 is the size of the area served.....approximately 14 sq. mi..

RFPD10 functions as a part of the larger GFES service area. This means that when needed (and available), Station 76 resources are

utilized for support throughout the greater GFES area. Conversely, GFES resources are utilized (when needed and available) for support in the RFPD10 primary service area. Consequently, financial and staffing limitations within the GFES service area have the capacity to impact service in the RFPD10 service area.

In October, 2020 a formal process (Safer Council) involving the cities of Gresham, Fairview, Wood Village, Troutdale and RFPD10 was initiated to address a number of important issues related to fire and emergency services including:

- **"There is a widening gap between revenues and expenses", and**
- **"Current operational service levels are not sustainable with existing funding gap." ***

*Safer Council 2021, Gresham Fire and Emergency Services

As of Fall 2021, the City of Gresham has withdrawn from the Safer Council process and Council meetings suspended. Strategies to address the growing financial crisis remain unresolved.

Budget limitations forcing service and/or staffing reductions have the capacity to increase response times of GFES units to fire and emergency calls requiring assistance in the RFPD10 service area.

Transportation/Roads

The road system within the primary service area of RFPD10 is maintained by the Multnomah County Transportation Division. These roads provide access for RFPD10 first responders to fire and emergency service calls. Road conditions and traffic impact response times and also create calls for emergency service.

Roads that will be most likely impacted by the proposed water filtration plant and their County Road Classification include :

- Dodge Park Blvd.—Rural Minor Collector
- Bluff Road— Rural Minor Collector

- Orient Drive— Rural Minor Arterial
- Lusted Road— Rural Minor Collector
- Altman Road (SE 327th)— Rural Local
- Carpenter Ln.— Rural Local
- Oxbow Dr.— Rural Minor Collector
- Cottrell Rd— Rural Local

* Source: Multnomah County Master Roads List, 2016

Multnomah County defines these classifications as follows:

"Rural Collector Roads

Rural collector roads are well connected in rural communities to distribute automobile traffic over large areas and generally connect to urban streets or rural arterials. Where rural collector streets connect roads in adjacent counties, through traffic will occur with volumes greater than local rural roads. They may also provide for recreational trips by auto, bicycle and equestrian. Primary access is provided to land uses adjacent to the facility and over large rural districts. **Rural collector roads provide for necessary truck transport of (agricultural, timber and minerals) out of rural districts."**(emphasis added)*

"Local Urban Streets and Rural Roads

Local streets provide access to abutting land uses on low traffic volume and low speed facilities. **Their primary purpose is to serve** local pedestrian, bicycle and automobile trips and limited public transportation use in urban areas; and **auto and farm vehicle circulation with local pedestrian, bicycle and equestrian use in rural areas."** (emphasis added)*

* Source: Mult. Co. Transportation System Plan, Appendix A Baseline Report Memo, page 54, link to Physical Support systems Policies, pages 45-2 and 45-3

None of the roads in the RFPD10 primary service area have sidewalks, bike lanes or other areas designated for pedestrians or equestrians. Few, if any, provide shoulders that can safely accomodate bicyclists, joggers, walkers, equestrians etc. These users must share travel lanes with vehicular traffic. **The Design and**

Construction Manual indicates that shoulders on collectors and arterials should be paved for a minimum of five feet.*(emphasis added)
Source: Multco TSP, 2016, page 86

Agriculture is the dominant land use in RFPD10's primary service area. County roads (including those noted above) provide critical transportation routes that support daily movement of large and small farm implements, product and staff. Slow moving farm equipment frequently interrupts/slows the normal flow of other local traffic.

Multnomah County Road Maintenance budget has been reduced by roughly 50% over the last 24 months. These reductions have significantly impacted road maintenance programs involving:
- pot hole repair
- resurfacing and seal coating
- snow and ice removal
- roadside vegetation management*

*Source: Personal Communication: James Turner, Multco. Road Maint. Mgr, 10/21

Multnomah County's Pavement Condition Index (PCI),2016 rates sections of relevant roads as follows:
- Dodge Park Blvd— 54/44/64/79/61
- Bluff Road— 59
- Orient Drive— 86/86/70
- Lusted Road— 66/66/52/61/51
- Altman Road (SE 327th)— 22/22
- Carpenter Ln.— 31
- Oxbow Drive—56/42
- Cottrell Road— 58/55

Note: 100 is the highest rating meaning excellent pavement condition. $\leq$ 50 indicates "failed pavement". Each number is the score for a specific section of the named road.
Source: Multco master road list 2016

It is likely that pavement conditions have further deteriorated in the intervening six years as a result of reductions in the road maintenance budget, staffing and associated programs.*

*Source: Personal Communication, James Turner, Multco. Road Maint. Mgr, 10/2021

"Failed Roads" (Roads with a PCI <50) do not provide an adequate roadway and require extensive improvements to improve pavement quality.* (emphasis added)

*Source:Final Multco. Roadway Capital Improvement Plan and Program, 2020-2024 page 68

As noted below, evidence indicates that the addition of heavy truck traffic is extremely damaging to rural roads.

"Most rural roads were originally built to accommodate trucks carrying produce from farm to market. Contractors could not have anticipated the unprecedented increase in industrial activities that would require moving super heavy loads of resources, equipment, and waste. That, coupled with aging pavement surfaces and inadequate funding, has caused roads in many rural communities to crumble and fail, **endangering citizens, damaging vehicles, and resulting in road closures and traffic delays."*** (emphasis added)

*Source: "Big Industry's Effect On Small Town Roads" Alison McGee, February 2021, RoadBotics

"Interestingly, the impact of vehicles on roads is not only determined by weight, but also by the number of axles. The U.S. General Accounting Office found that road damage does not increase linearly with weight, but *exponentially by the power of four.*

For a vehicle that carries twice as much weight per axle as a lighter vehicle, the damage to the road is not twice as much, but 2^4 or 16 times the damage as the lighter vehicle!

For example, one 18-wheeler at the U.S. maximum weight of 80,000 lbs traveling unilaterally causes the equivalent damage of 9,600 passenger vehicles weighing 4,000 lbs traveling in the same direction.

Because of this exponential effect, roads not designed to withstand heavy truck traffic are subject to potholes, cracking, rutting, and pavement distortions."*

*Source: "Big Industry's Effect On Small Town Roads" Alison McGee, February 2021, RoadBoRotics

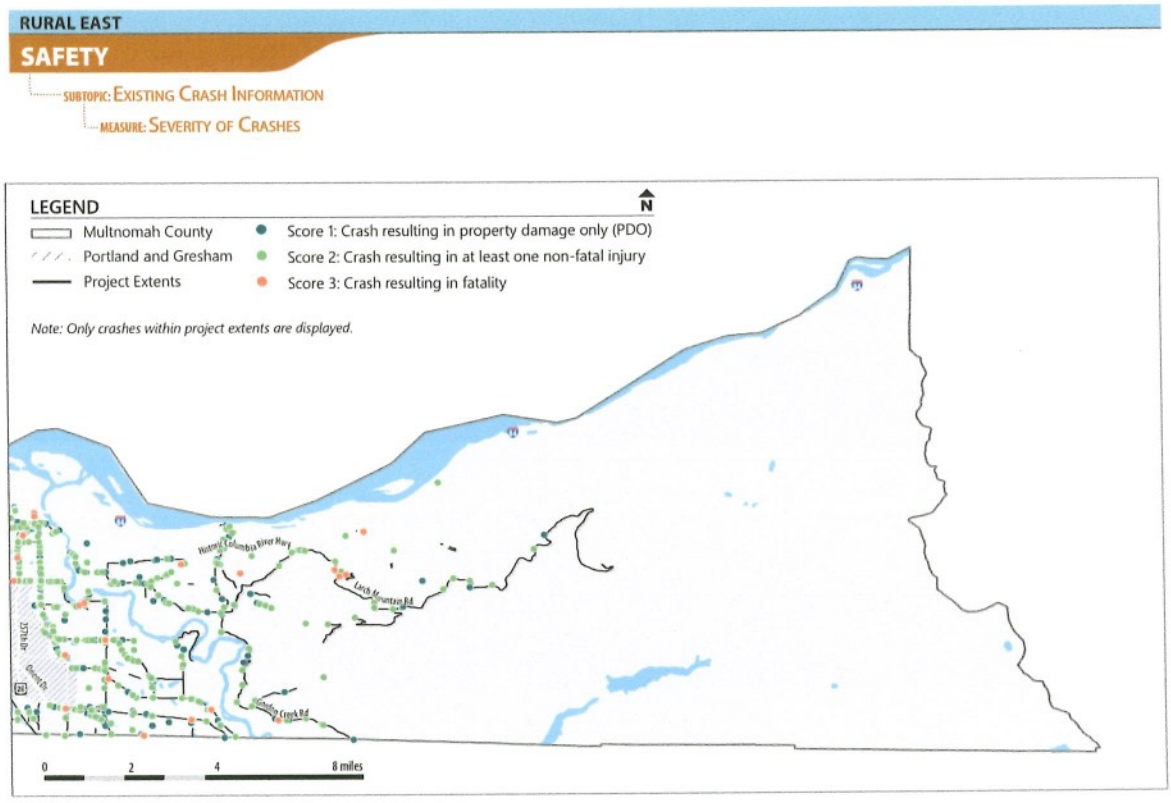
Road Safety

The following 2 maps document vehicle crash history and severity in RFPD10's primary service area (Map 1) and by comparison, Urban East County (Map 2).*

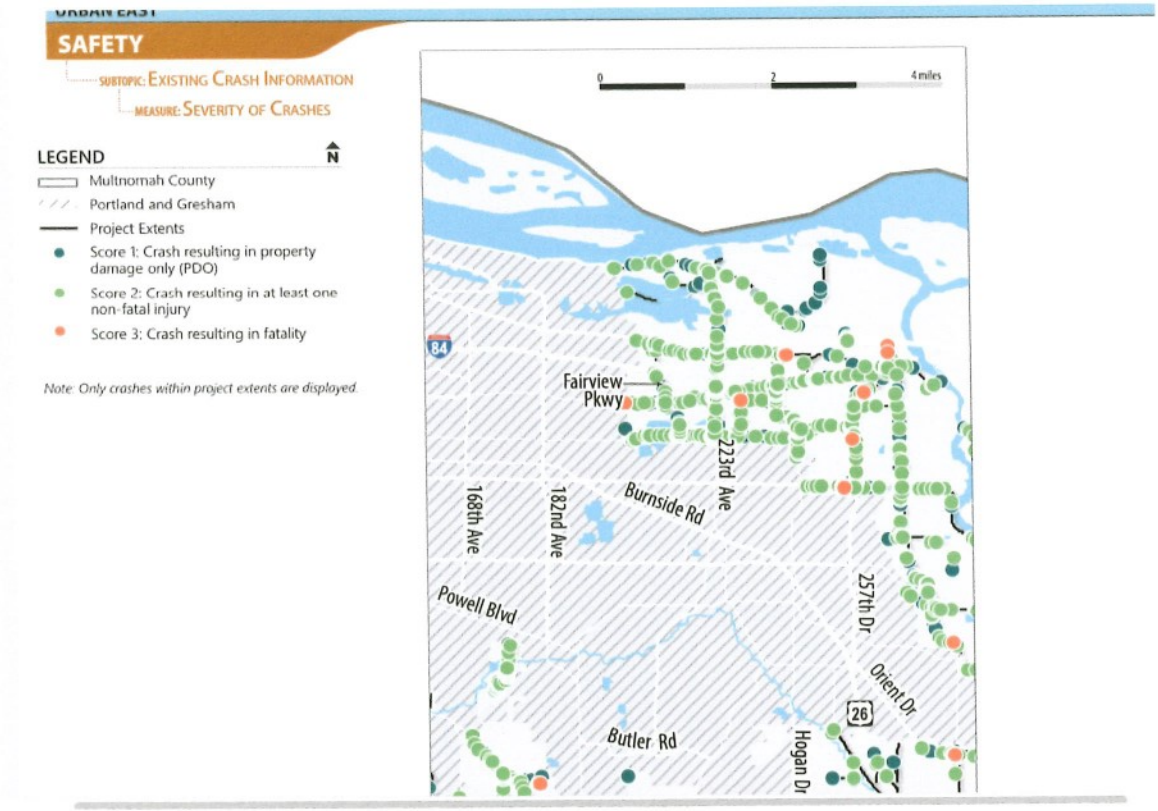
*Source Multnomah County Road Atlas C, Roads Capital Improvement Plan 2020-24

Comparing Map 1 and Map 2 clearly shows the correlation between traffic volume and vehicle crashes.

Map 1


RURAL EAST
SAFETY
SUBTOPIC: EXISTING CRASH INFORMATION
MEASURE: SEVERITY OF CRASHES
LEGEND
Multnomah County
Portland and Gresham
Project Extents
Score 1: Crash resulting in property damage only (PDO)
Score 2: Crash resulting in at least one non-fatal injury
Score 3: Crash resulting in fatality
N
Note: Only crashes within project extents are displayed.
0
2
4
8 miles

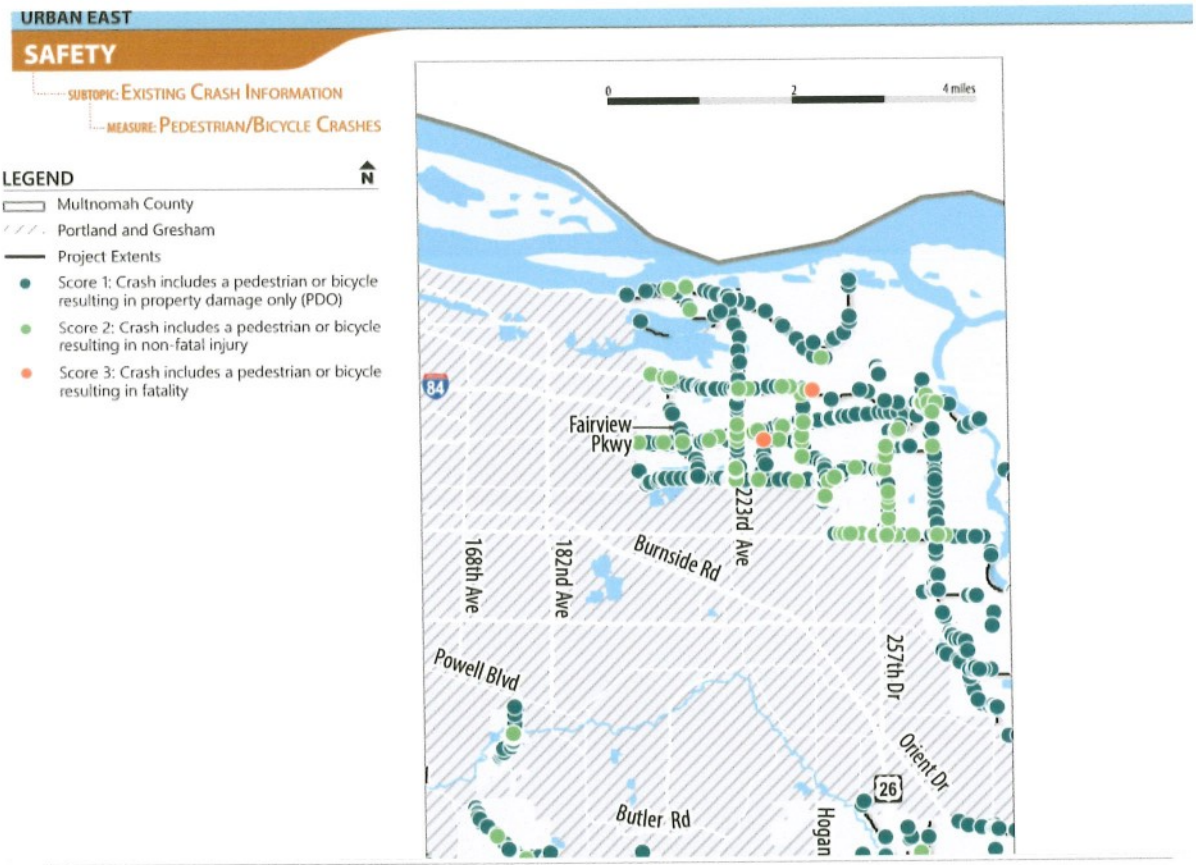
Map 2


SAFETY
SUBTOPIC: EXISTING CRASH INFORMATION
MEASURE: SEVERITY OF CRASHES
LEGEND
N
Multnomah County
Portland and Gresham
Project Extents
Score 1: Crash resulting in property damage only (PDO)
Score 2: Crash resulting in at least one non-fatal injury
Score 3: Crash resulting in fatality
Note: Only crashes within project extents are displayed.
0
2
4 miles
84
Fairview Pkwy
223rd Ave
Burnside Rd
168th Ave
182nd Ave
Powell Blvd
257th Dr
Orient Dr
26
Butler Rd
Hogan Dr

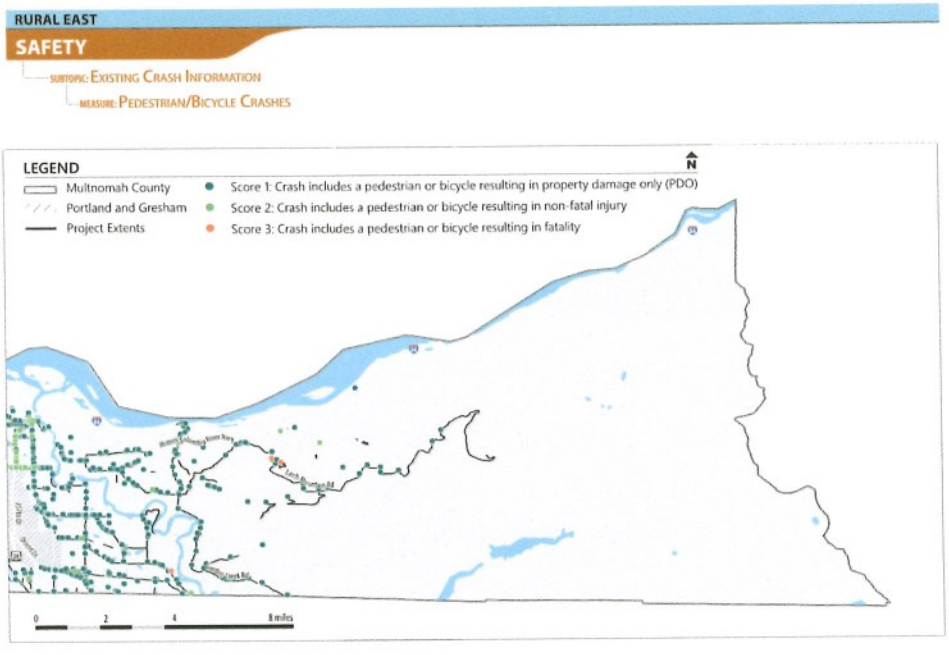
The following 2 maps document pedestrian and bicycle crashes on County roads in Urban East Multnomah County (Map 1) and, by comparison, County Roads in RFPD10's primary service area (Map2)

*Source: Multnomah County Road Atlas C, Roads Capital Improvement Plan 2020-24

Map 1



Map 2



Comparing Map1 and Map 2 clearly shows the correlation between traffic volume and pedestrian/bicycle crashes.

Although Oregon urban areas experience a significantly greater number of crashes, rural areas experience significantly more fatalities as noted below:

"In 2015, Oregon experienced 44,523 total crashes in urban areas, leading to 156 fatalities. In contrast, in the same year, the total crashes in **rural areas were roughly one-fourth (10,633) of those reported in urban areas. However, the number of fatalities were about two times (254) more than those experienced on urban roads** (Oregon Department of Transportation (ODOT) (2017)). The many reasons underlying this disparity include, but are not limited to: the longer emergency response times for individuals involved in a rural crash (Gonzalez et al., 2007); the higher speed limits and higher travel speeds in rural areas compared to urban areas; the lack of traffic law enforcement in rural areas compared to urban areas; the risky driving behavior in rural areas; the different traffic environments of rural and urban areas, such as traffic volume and roadway conditions (Nordfjærn et al., 2010); the lower use of protective devices, such as seatbelts, in rural areas (Yan et al., 2012); and the differences in individuals' perceiving and estimating the risks of traffic crashes in rural and urban areas."*

*Source: "International Journal of Transportation Science & Technology", June 2020, pgs 116-127

The 2016 Multnomah County Transportation System Plan (TSP) Introduction lists the following as a "Key Transportation Issue":

"Reduce Modal Conflicts– Most of Multnomah County's rural areas are served by two-lane narrow rural roadways. A variety of users with diverse needs and varying speeds (e.g., farm equipment, an active cycling community, pedestrians, and motorists) use the roadway, which can result in conflicts between modes."

The first key highlight of the Existing and Future Conditions section of the 2016 TSP (page 34) states:
"A. **The primary transportation issue in Multnomah County's rural areas is safety** (emphasis added). Identifying and prioritizing safety improvements will be a primary objective of the TSP Update."

"Population and employment in the rural areas is **expected to grow at approximately 3 – 3.5 percent per year.** Although not projected to result in traffic congestion in the rural areas, concerns about increasing traffic volumes on rural road remains. Additionally, **this growth will continue to have impacts on safety and conflicts between different modes."** *(emphasis added)
* Multco. Transportation System Plan, 2016, page 35

The following excerpts are relevant policies from the 2016 Multnomah County Transportation System Plan (a component of the County's Comprehensive Plan):

"Policy 1: Overall Transportation System
Maintain and improve the transportation system for all modes of travel with the following goals: reducing vehicle miles travelled, minimizing carbon emissions, reducing conflict between travel modes, and improving the natural environment by minimizing stormwater runoff and facilitating wildlife movement. Ensure that the transportation system reflects the community's rural character while ensuring efficiency and local connectivity."
TSP, 2016, page 69

"Policy 3: Overall Transportation System
Promote a transportation system that prioritizes and supports the efficient and safe movement of farm and forest vehicles and equipment."
page 70

"Policy 12: Mobility and Freight
Discourage through traffic on trafficways with a functional classification of rural local road or rural collector."
page 74

"Policy 18: Safety
Provide a transportation system that functions at appropriate safety levels for all motorized and non-motorized traffic."
page 76

"Policy 22: Transportation Health
Ensure that the transportation system is designed to minimize negative health impacts and promote healthy behaviors and environments by:

A. Improving safety for all modes
B. Increasing opportunities for physical activity by promoting active transportation modes (walking, bicycling, transit, and equestrian) and multimodal access to parks, trails, open space, and other recreational facilities and employment centers.
D. Reducing exposure to air, light, and noise pollutants."
pages 78-79

Portland Water Bureau Proposal

PWB proposes to construct and operate a disinfection and filtration plant with the capacity to treat 135-160 million gallons of water per day, 7 days per week, 365 days per year.
The proposed 95 acre site for the plant is located in the far southeastern corner of Multnomah County between SE Carpenter Ln. and SE Bluff Rd. The site has been utilized for nursery stock production for decades and is surrounded by agricultural lands and rural residential uses.

Primary access to the site for both construction and future operation is intended to be accommodated via SE Carpenter Ln. An emergency access is proposed from SE Bluff Rd.

Estimated construction period is 5 years.

The foot print of the proposed plant will occupy approximately 50+ acres. Development components include (but are not limited to) :

Buildings* (not inclusive)

- 17,907 sq. ft. Administration Bldg.
- 5,916 sq. ft. Maintenance Bldg.
- 7,435 sq. ft. Mechanical Dewatering Bldg.
- 22,457 sq. ft. Chemical Bldg.
- 3,759 sq. ft. Electrical Bldg.(main)
- 2,738 sq. ft. Electrical Bldg.(north)
- 5,826 sq. ft. Ozone Generation Bldg.
- 36,500 sq. ft. Treatment Process Complex
- 7,192 sq. ft. Finished Water Bldg.
- 366 sq. ft. Overflow Electrical Bldg.
- 110,096 sq. ft. (equivalent to approximately 55 2,000 sq. ft. single family residences)

* source Bonita Oswald, PWB, 11/17/2022

Treatment Basins* (concrete)

- Inlet Structure 30'x42'x 19'
- Ozone Contact Basin 192'x63'x28'
- Flocculation Basin 4@ 86'x77'x23' (332'x86'x23')
- Sedimentation Basin 4@ 105'x77'x23' (332'x105'x23')
- Filtration 12@ 75'x23'x23' (332'x105'x23')
- CT Basin 2@ 184'x81'x20' (237'x184'x20')
- Wash Water Clarification 2@ 50'x25'x21' (54'x53'x21')
- Clear Well 2@ 200'x116'x20' (237'x200'x20')
- Waste Wash Water Equalization Basin 2 134'x28'x17' (2@ 136'x30'x20')
- Gravity Thickener 1@ 58' dia. x 16'

- Thickened Sludge Storage Tanks 1@ 30' dia. x 18'
- Overflow Basins 2@ 130'x1000'x11'

Source: Bonita Oswald, PWB, 11/17/22
Some basins will have concrete covers

Put in perspective, just tanks and basins noted above will cover approximately 8.9 acres to an average depth of 20ft. Finished grades will have displaced approximately 373,454 cu. yds of soil.....the equivalent of about 113 olympic sized swimming pools. Construction excavations for these and other project elements will displace significantly larger quantities of soil. It is unclear how much of the displaced soil will have to be disposed of off-site.

Hazardous Materials/Deliveries

- 9 materials-Hazard Class 1 or 2
- Of these 9: 4 corrosive; 1 corrosive/toxic; 1 corrosive/oxidizing; 1 oxidizing gas/highly toxic; 1 cryogenic/oxidizing; 1 combustible/ carcinogen.
- Most of these 9 will exceed IBC/IFC maximum storage quantities.
- Although not listed in the PWB Hazardous Materials Management Plan (HMMP), Carbon Dioxide (CAS 124-38-9) is considered hazardous by OSHA*.
- Although not listed in PWB HMMP, Ammonium Sulphate Solution (CAS 7783-20-2) is classified hazardous (corrosive).
- 7 materials will create waste that requires a "licensed waste hauler" for disposal. No data provided about number of trips or nature of waste.
- Average 832 chemical deliveries estimated per year** (results in 1,664 trips on local roads).
- Average 468 sludge removal trips per year (results in 936 trips on local roads).
- 9 additional materials listed in Hazardous Materials Inventory Statement***. No information provided regarding Hazard Class, amount stored or delivery truck estimates.
- Unknown amounts and storage method of gasoline/diesel/other misc. hazardous materials to be delivered/utilized on site during estimated 5yr. construction period.

Source: PWB Hazardous Materials Management Plan, PWB staff
* OSHA Hazard Communication Standard (29 CFR 1900.1200)
** Land Use application Appendix C.1 Filtration Plant Traffic Impact Analysis Sept, 2022
*** PWB Hazardous Materials Management Plan, Hazardous Materials Inventory Statement

Plant Operation and Maintenance Hazards*

When completed the filtration plant will present "health and safety hazards including but not limited to the following:

- working at height
- respiratory protection needs
- emergency egress
- chemical storage and feed
- dangerous and hazardous materials
- moving equipment
- environmental conditions (such as heat, cold, sun exposure)
- pits and underground vaults"

*Source: PWB Basis of Design pg. 7-42

New Pipelines Proposed for Construction*

- Approximately 39,040 lineal feet (7.4 miles) new raw/finished water pipelines. Pipe sizes ranging from 12"-72".
- Approximately 2.4 miles of rural roads will be impacted with trenches ranging from 5'to 24' wide with average depth of 15'.
- Up to 7 full road crossings required.
- 2 tunnels @ 9' diameter x 1,200' and a shaft 230' deep x 35' diameter
- 4 year estimated construction period.
- Pipelines to be installed in public rights of way along Dodge Park Blvd, Lusted Road, Altman Road, Cottrell Road, Oxbow Dr..
- Traffic delays, lane closures, detours etc. are expected

*Source: PWB staff

Put in perspective, pipeline excavation will displace an estimated 261,981 cu. yds. of soil*, the equivalent of 79 olympic sized swimming pools. Majority of the displaced soil will have to be disposed of off-site (+/- 26,198 10 cu yd dump truck loads).

*estimate based on information provided by PWB staff and Land Use Application documents. Does not include required excavation for Lusted Road Inter-tie facility.

Traffic

- 1st Traffic Impact Analysis completed November, 2019. Data collected February 28, 2019 (7-9:00 am) and March 7, 2019 (4-6:00pm) for 7 intersections. Study estimates 23 am trips and 20 pm trips daily for ongoing operations.*
- 2nd Traffic Impact Analysis completed September, 2022. Data collected February 23, 2022 (7-9 am and 4-6 pm) for 13 intersections. Study estimates 32 am trips, 32pm trips and 124 total trips/day for ongoing operations.*
- Average number of chemical deliveries estimated @ 16/week (results in average 32 trips on local roads).* (832 deliveries/yr.)
- Average number solids disposal trucks estimated 9/week.* (results in average 18 trips on local roads.) (468 loads/yr.)
- Traffic impacts associated with public tours, other deliveries, and misc. traffic are not addressed.
- Only available estimate for construction traffic is: 116,000 truck trips for a 135 MGD facility** (no basis for estimate, unclear if that's one way trips, does not include work force, PWB staff, GC staff, pipeline construction)
- PWB indicates an assessment of construction traffic will be undertaken**
- PWB indicates a construction traffic management plan will be developed to reduce conflicts, local traffic disruption, safety issues.

*PWB Traffic Impact Analysis

** PWB staff 7/14/22 recorded meeting...minute 22:15+/-

RFPD10 FINDINGS

1. The primary service area of RFPD10 is located in a "Rural Reserve" dominated by Agricultural, Forest and Rural Residential uses with population of +/- 3,500. An industrial water treatment plant is inconsistent with the rural nature of RFPD10's primary service area.

2. RFPD 10 currently levies the maximum the District is authorized to collect. Increasing service levels is not feasible and has not been programmed for the future.

3. RFPD10 is able to staff 1 engine with 3 fire fighters 24/7. Back up support for serious incidents or overlapping calls comes from GFES or Clackamas Fire stations. Distance from these stations/ competing calls increases response times.

4. Fire fighters at Station 76 are not trained or equipped to deal with specialty rescue and response services including (but not limited to) hazardous materials, and confined space rescue. These services must be dispatched from various Gresham fire stations which increases response times.
   Note: As of the date of this document, continued availability of HazMat response from GFES is uncertain due to budget constraints.

5. Growing financial shortfalls, flat staffing levels and escalating number of calls within the City of Gresham adds "unit availability" to "distance" as a potential cause of response time delays when GFES support is needed in the primary RFPD10 service area.

6. Because of the large area (approx. 14 sq. mi.) serviced by Station 76, RFPD 10 is unable to meet response time standards established by the NFPA.

7. Rural county roads provide the sole access routes to calls in RFPD10's primary service area. Road and traffic conditions

influence response times and also contribute to the number of emergency calls.

8. The Multnomah County Transportation System Plan, 2016 states the primary transportation issue in Multnomah County's rural areas is safety. Reducing modal conflicts is noted as a key issue.

9. The Multnomah County Transportation System Plan Policies related to rural roads establish goals to: reduce miles traveled; reduce conflicts between travel modes; improve safety for all motorized and non-motorized traffic; promote opportunities for walking, bicycling etc. and ensure that the transportation system reflects the community's rural character while ensuring efficiency and local connectivity."

10. Population and employment in the rural areas is expected to grow at approximately 3 – 3.5 percent per year. This growth will continue to have impacts on safety and conflicts between different modes. Road capacities and emergency response capabilities should be reserved for this expected growth.

11. Two traffic studies have been completed for "operational" traffic impacts (data for both collected during winter months). No traffic study has been completed that documents/evaluates the large volume of heavy truck traffic associated with plant and pipeline construction that will span at least five years.

12. With one exception (SE Orient), all the roads that will be impacted by construction and ongoing operations traffic are classified as either "Rural Local" or "Rural Collector" by Multnomah County. Multnomah County does not intend these roads to be utilized for regular/repeated heavy truck traffic and defines their primary purpose as "auto and farm vehicle circulation with local pedestrian, bicycle and equestrian use in rural areas." and "necessary truck transport of (agricultural, timber and minerals) out of rural districts."

13. The majority of the finished water pipelines are proposed to be located in rural road rights of way. Impacts of the lengthily construction will include traffic delays, detours, road closures and significant road surface damage. These impacts will cause delayed response times for emergency services.

14. The addition of large volumes of heavy truck traffic for filtration plant construction, pipeline construction and ongoing operations will cause additional damage to rural roads that are already compromised. Deteriorated roads create a hazardous condition that contributes to increased response times and emergency response call load.

15. Few, if any, of the roads that will be utilized for construction and operations traffic have shoulders, sidewalks or other provision for non-vehicular traffic. Multnomah County data clearly shows the correlation between increased traffic and increased numbers of vehicular and bicycle/pedestrian crashes. The addition of construction and operations traffic to roads that must be shared with local residential traffic, farm employees, farm equipment, school buses and non-vehicular traffic creates an unavoidable hazardous condition and will contribute to increased call load at Station 76.

16. Any increase in call load related to the construction or ongoing operation of the proposed filtration plant reduces the availability of limited Station 76 equipment and staff to respond to other calls for emergency services within RFPD10's primary service area or provide backup service in adjacent areas.

17. Budget and staffing limitations in Multnomah County Road Maintenance budget have negatively impacted snow and ice removal in RFPD 10's primary service area. Snow and ice frequently persist considerably longer in this area due to its proximity to the Columbia Gorge. Heavy trucks operating on snow and ice covered roads exacerbates hazardous conditions for local traffic, farm traffic and non-vehicular traffic and will likely contribute to increased call loads at Station 76.

18. PWB has indicated it will develop and implement a construction traffic management plan to reduce hazards and minimize conflicts/disruptions. However, no plan can fully eliminate hazards, conflicts or disruptions and would be largely unenforceable for a project of this magnitude.

19. Hazardous materials will be utilized in large volumes on a 24/7/365 basis at the proposed plant. Hundreds of hazardous material deliveries will be required annually in all weather conditions. The potential for release of hazardous materials exists during transport, off-loading, storage and feed equipment failure. Accidental release of hazardous materials represents an ongoing hazardous condition that cannot be eliminated through best management practices, regulations, training or technology.

20. Nine health and safety issues related to plant operation have been initially identified by the PWB. While health and safety risk factors may be reduced through the implementation of appropriate design, training and best management practices, it is not possible to eliminate these risks. Consequently, plant operation represents an on going and unavoidable hazardous condition for residents, plant staff and first responders.

Conclusion/Recommendation

Multnomah County Land Use code states in part:
"§ 39.7515 APPROVAL CRITERIA.
In approving a Community Service use, the approval authority shall find that the proposal meets the following approval criteria……:
(D) Will not require public services other than those existing or programmed for the area;
F) Will not create hazardous conditions;
(G) Will satisfy the applicable policies of the Comprehensive Plan…"

The Board of Directors for Rural Fire Protection District 10 has carefully considered and evaluated available information as provided by PWB staff, PWB Basis of Design and other sources presented in this document and made findings that are relevant to the three criteria noted above.

Based on this information and related findings, the Board of Directors concludes that the Portland Water Bureau proposal to construct and operate a water filtration and treatment plant and construct raw and finished water pipelines:

1. **Will require public services other than those existing or programmed for the area; and**
2. **Will create hazardous conditions; and**
3. **Is not consistent with the Multnomah County Transportation System Plan, 2016 which is included in the Multnomah County Comprehensive Plan (Chapter 12).**

Therefore, the Board of Directors recommends denial of a conditional use permit by Multnomah County.