

# PUBLIC EDUCATION AND OUTREACH / PUBLIC INVOLVEMENT AND PARTICIPATION PLAN

July 1, 2021 to June 30, 2023

## 1. INTRODUCTION

On June 1, 2021, the Oregon Department of Environmental Quality (DEQ) issued a Phase II Municipal Separate Storm Sewer System (MS4) General Permit<sup>1</sup> to the City of Millersburg (the City). An MS4 is the storm sewer system that is owned and maintained by the City through which runoff from precipitation and snow melt events flow, eventually discharging into waters of the state. The City's MS4 discharges into the Willamette Basin through Crooks Creek and Crooks Creek Tributary. Through the implementation of the requirements described in the Permit, the City's MS4 discharges are essentially void of pollutants.

The City is in the process of satisfying the significant requirements that are outlined in the Phase II MS4 General Permit, including development of a Stormwater Management Program (SWMP) document, which describes the programs that are, or will be, implemented under six different minimum control measures, as required by DEQ. More information concerning the Phase II MS4 General Permit minimum control measures can be found in the SWMP document.

Two of the six control measures outlined in the Phase II MS4 General Permit are 1) Public Education and Outreach and 2) Public Involvement and Participation, which require the City to educate and engage the public regarding typical stormwater contaminants and how to reduce the potential for stormwater contamination. Programs implemented under the Public Education and Outreach, and Public Involvement and Participation control measures for the timeframe July 1, 2021, to June 30, 2023 are described in this Public Education and Outreach/Public Involvement and Participation (PEO/PIP) Plan.

## 2. PUBLIC EDUCATION AND OUTREACH REQUIREMENTS

The Phase II MS4 General Permit requires the City to develop a Public Education and Outreach Program that conforms with 40 Code of Federal Regulations (CFR) 122.34(b)(1):

*“The permit must identify the minimum elements and require implementation of a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants in storm water runoff.”*

The City is required to begin, update, or continue the existing Public Education and Outreach Program by February 28, 2024. The City initiated its Public Education and Outreach Program once permitted in 2021 and will continue to implement this program up to and beyond the 2024 deadline.

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<sup>1</sup> Phase I MS4 permittees are communities with populations over 100,000. Phase II permits are issued for those entities with populations less than 100,000.

The Phase II MS4 General Permit requires the City to distribute or offer at least two (2) educational messages or activities per year. Educational messages or activities may include printed materials, electronic materials, mass media, targeted workshops, other educational events, or formats.

The following three target audiences for outreach are identified in the Phase II MS4 General Permit:

1. General public, homeowners, homeowner association, schoolchildren, and businesses (including home-based and mobile businesses).
2. Local elected officials, land use planners, and engineers.
3. Construction site operators.

Each targeted audience must be contacted with a Public Education and Outreach Program activity at least once during the permit term, except construction site operators who must be targeted at least twice during the permit term.

The Phase II MS4 General Permit also provides the following list of 10 target topics:

1. Impacts of illicit discharges on receiving waters and how to report them.
2. Impacts from impervious surfaces and appropriate techniques to avoid adverse impacts.
3. Best management practices for proper use, application and storage of pesticides and fertilizers.
4. Best management practices for litter and trash control.
5. Best management practices for recycling programs.
6. Best management practices for power washing, carpet cleaning and auto repair and maintenance.
7. Low-impact development/green infrastructure.
8. Septic systems and information pertaining to maintenance of septic systems.
9. Watershed awareness and how storm drains lead to local creeks and rivers, and potential impacts to fish and other wildlife.
10. Stormwater issues of significance identified by the permit registrant.

## **2.1 Educational Activities for 2021 - 2022**

Below are the two educational activities that were conducted in the 2021 - 2022 Phase II MS4 General Permit reporting period.

- Develop Stormwater Website and Brochures
- Update City Council on Stormwater Issues

**Educational Activity 1: Develop Stormwater Website and Brochures**

Targeted Audience: General Public and Business

In the 2021 to 2022 Permit reporting period, the City updated its publicly accessible website to include information about stormwater:

[vhttps://www.millersburgoregon.gov/publicworks/page/storm-water-surface-water-storm-drains](https://www.millersburgoregon.gov/publicworks/page/storm-water-surface-water-storm-drains)

The City developed two informational flyers:

- 1) “What is stormwater and how does it impact me?” for the public and businesses, and
- 2) “What is Stormwater Runoff and What Are Its Impacts?” for industries

Flyers were also distributed at the Millersburg Celebration, which occurs the second Saturday in September.

**Educational Activity 2: Update City Council on Stormwater Issues**

Target Audience: Local Elected Officials, Land Use Planners and Engineers

In the 2021 to 2022 Permit period, Millersburg City Council discussed issues concerning stormwater runoff, including:

- December 14, 2021
  - Mayor reminded attendees of a litter pickup event the following Saturday at 9:30 am
- January 11, 2022
  - Mayor discussed the recent storm events and successful stormwater management
- April 12, 2022
  - Public comment provided regarding Stormwater Capital Improvement Projects
- May 10, 2022
  - HOA responsibilities to maintain detention ponds
  - Public comment provided concerning maintenance of stormwater swales
- June 14, 2022
  - Reviewed Capital Improvement Projects Plans, Stormwater, pages 41 - 44
  - Voted on Amendment # 5 to David Evans and Associates, Inc.: Construction Inspection Services and Stormwater Management Plan (SWMP) Development

## 2.2 Educational Activities for 2022 - 2023

Below are the two educational activities that were conducted in the 2022 - 2023 Phase II MS4 General Permit reporting period.

- Update Stormwater Website and Brochures
- Update City Council on Stormwater Issues

### **Educational Activity 1: Continued to Develop Stormwater Website and Provide Brochures**

Targeted Audience: General Public and Business

In the 2022 to 2023 Permit reporting period, the City continued to update its publicly accessible website to include information about stormwater:  
<https://www.millersburgoregon.gov/publicworks/page/storm-water>

The City updated two informational flyers:

- 3) “What is stormwater and how does it impact me?” for the public and businesses, and
- 4) “What is Stormwater Runoff and What Are Its Impacts?” for industries

Flyers were provided on website and hard copies were available at City Hall. They were also included in utility bills sent out in the fall of 2022.

### **Educational Activity 2: Update City Council on Stormwater Issues**

Target Audience: Local Elected Officials, Land Use Planners and Engineers

In the 2022 to 2023 Permit period, Millersburg City Council discussed issues concerning stormwater runoff, including:

- July 12, 2022
  - Updated council on status of Stormwater Management Plan
- August 9, 2022
  - Council approved Amendment 6 to David Evans contract for Stormwater Management Plan to support compliance with the MS4 Permit
- October 11, 2022
  - Council updated on Stormwater Management Plan
- November 8, 2022
  - Updated council on status of compliance with MS4 permit and submission of second annual report
- January 10, 2023
  - Reviewed recent stormwater issues in Woods Estates, including finding of debris and oil container in outlet pipe. Discussed how this is a violation of our code and the MS4 permit addresses escalating enforcement when the offender can be identified. In this case the origin of the container was unknown.
- April 11, 2023
  - Council approved Amendment 7 to David Evans contract for Stormwater Management Plan development support.
  - Adopted change to Municipal Code Chapter 12.45 Post-Construction Stormwater for threshold of 5,000 sf for water quality treatment.

### **2.3 Construction Site Control Measures**

The Phase II MS4 General Permit requires that, at least twice during the permit term, educational outreach is provided to construction site operators working within the community.

**Educational Activity for Construction:**

In the 2021 to 2022 Permit Year, the City built a new fire station.

Ongoing communication about the significance of contaminated runoff as well as the proper control measures to be implemented to reduce the potential for contaminated runoff was conducted with the onsite contractor building the fire station on several occasions. Inspections of the site provided information on what was considered an operational control measure and what measures needed to be maintained or replaced.

In the 2022 to 2023 Permit Year, there was ongoing communication with the site operators of several single-family home sites regarding erosion and sediment control measures, including working with one contractor to address mud and rock tracked onto streets.

**3. PUBLIC INVOLVEMENT AND PARTICIPATION REQUIREMENTS**

The Phase II MS4 General Permit requires the City to develop a Public Involvement and Participation Program that conforms with 40 CFR 122.34(b)(2):

*“The permit must identify the minimum elements and require implementation of a public involvement/participation program that complies with State, Tribal, and local public notice requirements.”*

*and*

*“Opportunities for members of the public to participate in program development and implementation include serving as citizen representatives on a local storm water management panel, attending public hearings, working as citizen volunteers to educate other individuals about the program, assisting in program coordination with other pre-existing programs, or participating in volunteer monitoring efforts.”*

The City is required to allow public comment on stormwater management, maintain a publicly accessible website, and provide for a public involvement stewardship opportunity.

**4. COMMENT ON STORMWATER MANAGEMENT**

The City provides opportunities for public comment at all regular meetings of the City Council scheduled for the second Tuesday of each month at 6:30 p.m. City Council meeting agendas and agenda packets are provided online. Citizens may join City Council in their chambers for regular meetings or virtually using AspenUC. Participants who attend virtually can “raise a hand” to speak and are unmuted by the meeting organizer when it is their turn to speak. City Council regular meetings are recorded, with a link to each meeting on the City’s website.

**4.1 Publicly Accessible Website**

The City has a publicly accessible website that includes contact information and flyers recently developed at <https://www.millersburgoregon.gov/publicworks/page/storm-water-surface->

[water-storm-drains](#). This website will contain the most recent SWMP document including its associated plans and the City's Annual Reports submitted to DEQ.

The City also maintains a Complaint Reporting website at <https://www.millersburgoregon.gov/code/webform/report-problem-or-concern> where complaints can be filed 24 hours a day, 7 days a week.

Finally, the City developed an Erosion Prevention and Sediment Control website at <https://www.millersburgoregon.gov/building/page/erosion-prevention-sediment-control-application>. This website will undergo additional revisions in the 2022 - 2023 Permit period to include links to ordinances, policies and/or guidance documents related to construction and post-construction stormwater management control programs, including education, training, licensing, and permitting.

#### **4.2 Public Involvement Stewardship Opportunity**

The Phase II MS4 General Permit requires the City to develop a public stewardship opportunity. Stewardship opportunities allow the public to be involved and educated on stormwater pollution and prevention through activities that can enhance program compliance.

The City supports an Adopt-a-Road program by providing trash pickup devices and reflective vests to civic groups that clean up trash from Old Salem Road approximately every other month. Civic groups picked up trash on Old Salem Road on the following dates:

- August 21, 2021
- October 15, 2021
- December 18, 2021
- February 19, 2022
- April 16, 2022
- June 18, 2022
- August 20, 2022
- October 15, 2022
- December 17, 2022
- February 18, 2023
- April 15, 2023
- June 17, 2023

### **5. TRACKING AND ASSESSMENT**

Each year, the City of Millersburg will re-visit the Education and Outreach / Public Involvement and Participation Programs to assess progress toward successfully satisfying the Phase II MS4 General permit requirements. During the period from July 1, 2021 to June 30, 2022, the City implemented some of its first Permit-related outreach efforts. From July 1, 2022 to June 30, 2023, the City expanded on the original outreach efforts. It is projected that these first efforts will begin to inform the public, businesses, and industries about stormwater considerations and significantly increase their understanding of stormwater runoff and its effect on stream water quality.

The City is also subject to DEQ's Willamette Valley Total Maximum Daily Load (TMDL) requirements for Temperature, Bacteria, and Mercury. The TMDL Implementation Tracking

Matrix, which identifies requirements that must be met between 2019 and 2024, is attached as **Appendix A** to this PEO/PIP Plan. Each year, the City must assess its activities in satisfaction of the requirements outlined in the Matrix.

Several of the Matrix requirements also compliment those identified in the Phase II MS4 General permit, including:

- Distribute or post outreach materials concerning riparian regulations and the benefit of riparian plantings and shading vegetation on private property at least once per year.
- Through plan review, minimize new paving and roof areas, reducing impervious areas.
- Ensure that industrial dischargers are aware of the Oregon Department of Environmental Quality (ODEQ) industrial stormwater permits.
- Continue to expand the municipal wastewater system and inform Linn County of any concerns with the existing septic systems.
- Supply pet waste bags and enforce farm animal regulations with respect to waste management.
- Encourage waste management trucks to cover loads during transport.
- Support an adopt a road program.
- Require erosion prevention and sediment control at construction sites.
- Provide stormwater treatment for new development and redevelopment that replace or install 5,000 sf of impervious area.
- Prevent hazardous waste and illegal discharges.
- Encourage recycling.
- Ensure City officials are aware of the need to address TMDL requirements and City-wide efforts to improve water quality.
- Inspect stormwater outfalls during dry weather.
- Conduct stormwater system maintenance.
- Conduct annual staff training.
- Provide opportunities for public involvement.

TMDL Annual Reports are developed to document progress on implementation of the TMDL activities. The 2021 and 2022 Annual Reports are attached as **Appendix B** to this PEO/PIP Plan and supports the Public Education and Outreach/Public Involvement and Participation activities under the Phase II MS4 General Permit.



## **Appendix A: TMDL Implementation Tracking Matrix: Millersburg, Oregon**

**TMDL Implementation Tracking Matrix: Millersburg, Oregon STATUS UPDATED FOR 2023-2028, Rev. 12/8/2023**

Millersburg has legal authority over land use on 2,850 acres within the City Limits. The Willamette River forms the western boundary of the City between river-mile 115.5 and 117.75 for approximately 2.25 miles. The City is implementing its MS4 Phase 2 Permit throughout its entire jurisdiction in order to also meet the NPS load allocations (LA) for the Mercury TMDL.

<b>POLLUTANT</b> <i>Pollutants Addressed by the TMDL.</i>	<b>POLLUTANT SOURCES</b>	<b>STRATEGY</b> <i>What Millersburg is doing and will do to reduce pollution from this source.</i>	<b>ACTIONS</b> <i>Specific Implementation Measures.</i>	<b>BENCHMARKS</b> <i>Intermediate indicators of progress.</i>	<b>TIMELINE</b> <i>Beginning and completion dates.</i>	<b>MEASURE</b> <i>Demonstrate implementation or completion of the strategy.</i>	<b>PROGRAM FUNDING</b>	<b>STATUS</b>
<b>1.0 TEMPERATURE</b>	A. Solar Radiation	Maintain existing riparian plantings and shading vegetation.	Code enforcement of riparian and vegetative protections.  When doing drainage way maintenance/brush removal activities, remove only obstructions to the flow. Protect trees and larger vegetation outside the active channel which provide shading and grass/vegetation within the channel which does not obstruct flow.	Compare aerial photographs at periodic intervals to determine the state of and changes to riparian areas.  Visually inspect Crooks Creek main channel and its two northern tributaries within City limits.	Visual inspection of Crooks Creek and tributaries annually.  Aerial photo analysis annually or as new open-source aerial photos become available.	Yearly review of standards compliance.  Report on visual inspection of Crooks Creek and tributaries.  Report on any code enforcement actions related to riparian vegetation.	General Fund/ Stormwater Fund	
		Perform public outreach and education on riparian regulations and the benefits of riparian plantings and shading vegetation on private property.	Public outreach and education through posting materials to City website and/or fliers on benefits of riparian plantings and shading. Provide guidance to private property owners when requested.	Distribute or post outreach materials minimum of once per year.	Outreach materials reviewed annually and updated if needed.  Maintain up-to-date website, review at least annually.  Perform a minimum of one outreach event or one flyer/ mailing each year.	Track and document outreach and education events, mailings, postings and other efforts; annual review.	General Fund/ Stormwater Fund	
		Maintain existing shading vegetation in riparian areas on City-owned property.	Monitor health of existing vegetation in riparian areas on City-owned property.	Visually inspect trees annually. Engage arborist if conditions of concern exist.	Visual inspection by City staff annually. Evaluation by arborist as needed.	Report on annual visual inspection and arborist evaluation, as applicable. Report on implementation of arborist recommendations.	General Fund/ Stormwater Fund	
	B. Impervious Surface Runoff	Minimize new paving and roof areas, as practicable to reduce stormwater temperature increases.	Enforce maximum ground coverage standards per Land Use Development Code Zones and Zoning Regulations.	Monitor subdivision and building site plans.  Review lot coverage for building permits submitted.	Ongoing; annual review	Track and document compliance review of new development, violations, and enforcement actions.	General Fund/ Planning and Development	
	C. Industrial Storm Water Discharges	Ensure regulations for industrial storm water are communicated to new industries.	Inform applicants of 1200-Z and 1200-C permit requirements and direct them to contact DEQ.  Notify DEQ of any reported complaints regarding industrial stormwater discharges.	Ensure notification to new applicants by providing notes on city permit forms, land use approvals comments, etc.  Track any notifications to DEQ.	Ongoing; annual review.	Yearly review of permit applications for compliance in notifying new applicants of 1200-C and 1200-Z requirements.  Report any complaint notifications to DEQ	General Fund/ Planning and Development	

<b>2.0 BACTERIA</b>	A. Septic Systems  (approximately 4% of the City's dwellings are on individual septic systems)	Contact Linn County Environmental Health about reported concerns with existing septic systems.  Ensure system conversion to municipal sewer system is required for new or redevelopment per the Development Code.	Continue expansion of municipal sewer system to serve all areas of the city.  Enforce septic system conversion to municipal sewer system when required by Development Code.	Monitor septic system conversion to municipal sewer system & document sewer system extensions	Ongoing; annual review	Report number of septic systems converted to municipal sewer system each year. Report expansions to municipal sewer system  Track complaints/ concerns City reports to Linn County	Sewer Fund	
	B. Pet and animal waste	Continue to supply pet waste pickup stations.  Enforce farm animal regulations.	City is providing waste collection stations at City Parks and at other City-owned open space.  Code enforcement of farm animal raising.	Monitor usage of waste collection stations and farm animal compliance with City Code.	Ongoing; annual review	Track approximate costs of maintaining and restocking dog waste stations.  Track responses to complaints regarding animal waste, violations, and follow-up actions	General Fund/ Parks	
	C. Garbage spills	Encourage waste collection companies to cover waste bins during transit.  Encourage adopt-a-road program within the City.	Enforce current traffic code requiring covered loads.  Encourage and support adopt-a-road program by posting information on how to get started to the City web site and referring interested groups to Linn County for county roads. Provide supplies and equipment to adopt-a-road groups.  Monthly street sweeping of all City streets, twice-a-month sweeping of Old Salem Road.	Respond to road/roadside debris complaints and remove debris during routine maintenance activities and on an as-needed basis.  Ensure street sweeping activities are happening on regular schedule.  Track number and type of supplies (bags, gloves) and equipment (vests, trash pick-up tools) provided to adopt-a-road groups.	Ongoing; annual review	Report on roadside debris observed and removed and any enforcement actions.  Report on roads adopted and supplies provided by City, including costs, to adopt-a-road groups.  Report on street sweeping activities.	Streets Fund	
<b>3.0 MERCURY</b>	A. Erosion and sedimentation containing mercury from existing background sources and introduced deposits from air and industries.	Strategy: Pollution Prevention and Good Housekeeping for Municipal Operations	Actions: Reduce discharge of mercury-related pollutants, such as sediment, through the stormwater conveyance system. Conduct municipal operation and maintenance activities in a manner that reduces the discharge of pollutants to protect water quality.	Benchmarks: See Phase 2 MS4 General Permit, Schedule A.3.f	Timeline: See Phase 2 MS4 General Permit, Schedule A.3.f.i	Measure: See Phase 2 MS4 General Permit Schedule A.3.f	Funding: General Fund/ Stormwater Fund	
		Public Education and Outreach	Conduct ongoing education and outreach program to inform the public about the impacts of stormwater discharges on waterbodies and steps they can take to reduce mercury-related pollutants in stormwater runoff.	See Phase 2 MS4 General Permit, Schedule A.3.a	See Phase 2 MS4 General Permit, Schedule A.3.a.i	See Phase 2 MS4 General Permit, Schedule A.3.a	Funding: General Fund/ Stormwater Fund	
		Public Involvement and Participation	Implement public involvement and participation program that provides opportunities for the public to effectively participate in the development of stormwater control measures.	See Phase 2 MS4 General Permit, Schedule A.3.b	See Phase 2 MS4 General Permit, Schedule A.3.b.i	See Phase 2 MS4 General Permit, Schedule A.3.b	Funding: General Fund/ Stormwater Fund	

		Illicit Discharge Detection and Elimination	Implement and enforce a program to detect and eliminate illicit discharges into the stormwater conveyance system.	See Phase 2 MS4 General Permit, Schedule A.3.c	See Phase 2 MS4 General Permit, Schedule A.3.c.i	See Phase 2 MS4 General Permit, Schedule A.3.c	Funding: General Fund/ Stormwater Fund	
		Construction Site Runoff Control	Refer Projects to DEQ to obtain NPDES 1200-C permit for construction projects that disturb one or more acres (or that disturb less than one acre if it is part of a "common plan of development or sale" disturbing one or more acres).	See Phase 2 MS4 General Permit, Schedule A.3.d.iii	See Phase 2 MS4 General Permit, Schedule A.3.d.i	See Phase 2 MS4 General Permit, Schedule A.3.d.iii	Funding: General Fund/ Stormwater Fund	
			Require construction site operators to complete and implement an Erosion and Sediment Control Plan for construction sites that disturb 10,000 square feet or more and are not already covered by a 1200-C permit	See Phase 2 MS4 General Permit, Schedule A.3.d.iv	See Phase 2 MS4 General Permit, Schedule A.3.d.i	See Phase 2 MS4 General Permit, Schedule A.3.d.iv	Funding: General Fund/ Stormwater Fund	
			Require erosion controls, sediment controls, and waste materials management controls to be used and maintained at all qualifying construction projects from initial clearing through final stabilization.	See Phase 2 MS4 General Permit, Schedule A.3.d.ii	See Phase 2 MS4 General Permit, Schedule A.3.d.i	See Phase 2 MS4 General Permit, Schedule A.3.d.ii	Funding: General Fund/ Stormwater Fund	
			Develop, implement, and maintain a written escalating enforcement and response procedure.	See Phase 2 MS4 General Permit, Schedule A.3.d.vii	See Phase 2 MS4 General Permit, Schedule A.3.d.i	See Phase 2 MS4 General Permit, Schedule A.3.d.vii	Funding: General Fund/ Stormwater Fund	
			Track implementation of construction site runoff program required activities.	See Phase 2 MS4 General Permit, Schedule A.3.d.ix	See Phase 2 MS4 General Permit, Schedule A.3.d.i	See Phase 2 MS4 General Permit, Schedule A.3.d.ix	Funding: General Fund/ Stormwater Fund	
			Post-Construction Site Runoff for New Development and Redevelopment	Develop, implement, and enforce a program to reduce discharges of pollutants and control post-construction stormwater runoff from new development and redevelopment project sites.	See Phase 2 MS4 General Permit, Schedule A.3.e	See Phase 2 MS4 General Permit, Schedule A.3.e.i	See Phase 2 MS4 General Permit, Schedule A.3.e	Funding: General Fund/ Stormwater Fund
<b>4.0 INTERRELATED FACTORS</b>	A. Stormwater Discharge, a contributing source factor for all three Identified Pollutants.	Provide stormwater detention and treatment.	Enforce existing regulations & perform regular maintenance inspections of existing public facilities.  Update engineering standards to comply with MS4 permit requirements for retention and water quality treatment.	Monitor effectiveness of existing regulations and maintenance program.  Update engineering standards to require retention in addition to stormwater treatment and detention.	Ongoing enforcement of existing standards  Revision of post-construction stormwater quality engineering standards by Feb 28, 2024 for compliance with MS4 Phase II General Permit.	Maintain records of stormwater calculations and reports in development files.  Track maintenance of facilities.  Provide updated engineering standards for post construction stormwater quality on Millersburg website.	General Fund/ Stormwater Fund	
	B. Disposal & Recycling	Prevent hazardous waste & illegal discharges and encourage recycling.	Work with waste disposal provider (Republic Services) to provide information to the public	Regular review of agreement with Republic Services to ensure	Periodic and on-going. Franchise agreement is reviewed every five years,	Maintain record of any reported illegal discharges and enforcement actions.	General Fund	

			on disposal regulations and recycling. Support Hazardous Waste collection days. Advertise on City reader board and website.	services continue to meet the needs of the community.	evaluation of services annually.	Report on Actions.		
	Illicit Discharge, Detection and Elimination	Monitor ditches during dry weather. Dry weather screening - inspect 20% of outfalls annually. Provide reporting/complaint information on City website, including phone number and complaint form.	Investigate source of any flow found in ditches during dry weather for IDDE. Track dry weather outfall inspection/screening.	Dry weather ditch monitoring – ongoing. Inspect at least 20% of outfalls annually.	Report on any flow found in ditches during dry weather and outcome of any investigations. Report on dry weather outfall screening. Track responses to complaints.	General Fund/ Stormwater Fund		
C. Information Program for Clean Water Act and potential pollutants	Implement outreach and education activities for new local industries and the general public.	Post information or links to City website. Educate new industries about protection of stormwater.	Review stormwater flyer for general public, post to website, and make available at City Hall. Review stormwater flyer for industry and give to new industries at time of permits.	Review flyers annually and ensure they are posted on City website.	Annual communication of information to public and report to council. Provide flyers with annual report.	General Fund/ Stormwater Fund		
D. Funding	Provide funding for planning and implementation of needed programs to address pollution.	Seek funding sources, including considering creation of a stormwater utility and fee.	Prepare a working list of potential funding sources.	Ongoing; annual review	Achieve funding to implement planning and implementation of needed programs	General Fund/ Stormwater Fund		
E. Intergovernmental Cooperation	Achieve economies and expanded informational base through cooperative associations.	Contact local and statewide organizations addressing environmental issues. Expand participation in Oregon ACWA.	Attend stormwater information sharing events. Participate with other agencies in local collaboration groups.	Ongoing; annual review	Report on events attended and participation in local collaboration groups.	General Fund/ Stormwater Fund		
F. City Council Support for water quality efforts	Ensure City Council is aware of TMDL requirements, TMDL Implementation Plan, and city-wide efforts to improve water quality.	City Council meeting overview and acknowledgement of TMDL Plan, Annual Report, and Five Year Review.	Revised Matrix presented to City Council; Annual City Council meeting minutes.	Ongoing; annual review	Annual meeting with City Council about TMDL responsibilities, progress, funding needs, etc.	General Fund/ Stormwater Fund		
G. Staff Training and Good Housekeeping	Implement requirements of MS4 Phase II General Permit for stormwater system maintenance.	Establish a stormwater system maintenance program per the MS4 Permit.	Program and fund stormwater system maintenance activities: street sweeping, inlet inspection, system cleaning.	Establish and begin implementing program by Feb 28 ,2024 in accordance with the MS4 Phase II General Permit.	Report on maintenance activities.	General Fund/ Stormwater Fund		
	Annual staff training.	One staff member participate in one training event per year and give presentation to other staff, as applicable.	Participation in one training event annually.	Training - annually, ongoing.	Documentation of training event attended and materials presented to other staff, as applicable.	General Fund/ Stormwater Fund		
H. Public Involvement	Provide opportunities for public involvement.	Include public outreach events in master plan processes and provide public comment periods for adoption of master plans. Allow for public comments on stormwater related topics at council meetings. Maintain publicly accessibly website.	Provide materials for public review ahead of meetings by posting on website.	Ongoing; annual review	Report on public outreach activities conducted and comments received.	General Fund		

**Appendix B**  
**TMDL Implementation Tracking Matrix: Millersburg, Oregon**  
**2021 and 2022 Annual Reports**



# Oregon

Kate Brown, Governor

Department of Environmental Quality

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TTY 711

April 26, 2022

Janelle Booth  
4222 NE Old Salem Road  
Albany, OR 97321

Re: Review and Acceptance of the 2021-2022 TMDL Implementation Plan Annual Report for the City of Millersburg

Dear Janelle Booth,

Thank you for submitting the Millersburg 2021-2022 TMDL Implementation Plan Annual Report. The Department has reviewed your report and finds that the report complies with the annual reporting requirement.

I would like to reaffirm that I am available as a resource to assist you as you move forward with TMDL implementation. Please feel free to contact me at (541) 687-7347 for assistance.

Best regards,

*Priscilla Woolverton*

Priscilla Woolverton  
Willamette Basin Coordinator

ec: Zach Loboy, Watershed Manager, DEQ

**TMDL Implementation Tracking Matrix: Millersburg, Oregon STATUS UPDATED FOR 2019-2024 – 2021 Report**

Millersburg has legal authority over land use on 2,850 acres within the City Limits. The Willamette River forms the western boundary of the City between river-mile 115.5 and 117.75 for approximately 2.25 miles.

POLLUTANT <i>Pollutants Addressed by the TMDL.</i>	POLLUTANT SOURCES	STRATEGY <i>What Millersburg is doing and will do to reduce pollution from this source.</i>	ACTIONS <i>Specific Implementation Measures.</i>	BENCHMARKS <i>Intermediate indicators of progress.</i>	TIMELINE <i>Beginning and completion dates.</i>	MEASURE <i>Demonstrate implementation or completion of the strategy.</i>	PROGRAM FUNDING	STATUS – 2021 Report
1.0 TEMPERATURE	A. Solar Radiation	Maintain existing riparian plantings and shading vegetation.	Update Land Use Development Code to include more provisions for riparian vegetation protection, including greater setbacks for drainage ways.  Code enforcement of riparian and vegetative protections.  When doing drainage way maintenance/brush removal activities, remove only obstructions to the flow. Protect trees and larger vegetation outside the active channel which provide shading and grass/vegetation within the channel which does not obstruct flow.	Compare aerial photographs at periodic intervals to determine the state of and changes to riparian areas.  Visually inspect Crooks Creek main channel and its two northern tributaries within City limits.	Continue to enforce City's current Development Code (1984 & 2006) until revised code is adopted; ongoing  Current code revision is underway with adoption anticipated in 2019. Begin enforcement upon adoption of new code.  Visual inspection of Crooks Creek and tributaries annually.  Aerial photo analysis annually or as new open source aerial photos become available.	Yearly review of standards compliance.  Report on visual inspection of Crooks Creek and tributaries.  Annual progress of code revision.	General Fund/ Stormwater Fund	Adopted Title 12 - Surface Water into the municipal code in previous reporting cycle (December 2019).  Development Code revision was adopted in previous reporting cycle (October 2020).  Codes were enforced through land use reviews, grading, and stormwater permits.  Visual inspection of Crooks Creek and tributaries conducted along with brush removal activities for maintaining conveyance capacity. Only low vegetation obstructing the channel was removed, trees and larger shading vegetation were avoided/protected.
		Perform public outreach and education on riparian regulations and the benefits of riparian plantings and shading vegetation on private property.	Public outreach and education through posting materials to City website and/or fliers on benefits of riparian plantings and shading. Provide guidance to private property owners when requested.	Distribute or post outreach materials minimum of once per year.	Years 1-5: Outreach materials reviewed annually and updated if needed.  Years 1-5: Maintain up-to-date website  Years 1-5: Perform a minimum of one outreach event and one flyer/ mailing each year.	Track and document outreach and education events, mailings, postings and other efforts; annual review.	General Fund/ Stormwater Fund	Continued to host website page for stormwater, which includes TMDL reports, Stormwater Master Plan, and flyers for residents, businesses, and industries.  An outreach event was held with builders in the new Sarah's Meadows subdivision. They were given copies of erosion permit and discussed inspection requirements (Attachment 4).
		Maintain existing shading vegetation in riparian areas on City-owned property.	Monitor health of existing vegetation in riparian areas on City-owned property.	Visually inspect trees annually. Engage arborist if conditions of concern exist.	Visual inspection by City staff annually. Evaluation by arborist as needed, minimum every 5 years.	Report on annual visual inspection and arborist evaluation, as applicable. Report on implementation of arborist recommendations.	General Fund/ Stormwater Fund	Annual visual inspection of trees conducted. Trees within riparian areas generally have not changed. Some ivy present, ivy girdling performed in 2020. Will continue to monitor.
	B. Impervious Surface Runoff	Minimize new paving and roof areas, as practicable to reduce stormwater temperature increases.	Enforce maximum ground coverage standards per Land Use Development Code Zones and Zoning Regulations.	Monitor subdivision and building site plans.  Track approved variances	Ongoing; annual review	Track and document compliance review of new development, approved variances, violations and enforcement actions.	General Fund/ Planning and Development	New development was constructed in compliance with ground coverage standards. No variances were approved and no enforcement actions were taken.



								There were multiple occurrences of staff discussing lot coverage standards with property owners when applying for or considering building permits for additional structures. Permits for additional structures not issued if lot coverage requirements would be exceeded.
	C. Industrial Storm Water Discharges	Ensure regulations for industrial storm water are communicated to new industries.	Inform applicants of 1200-Z and 1200-C permit requirements and direct them to contact DEQ.  Notify DEQ of any reported complaints regarding industrial stormwater discharges.	Track notification to new applicants.  Track any notifications to DEQ.	Ongoing; annual review.	Yearly review of compliance in notifying new applicants of 1200-C and 1200-Z requirements.  Report any complaint notifications to DEQ	General Fund/ Planning and Development	No new industries started operation in the city in 2021. Several expressed interest in available properties and were made aware of 1200-C and 1200-Z requirements.  In 2021, no complaints were received by the City.
<b>2.0 BACTERIA</b>	A. Septic Systems  (approximately 4% of the City's dwellings are on individual septic systems)	Contact Linn County Environmental Health about reported concerns with existing septic systems.  Ensure system conversion to municipal sewer system is required for new or redevelopment per the Development Code.	Continue expansion of municipal sewer system to serve all areas of the City.  Enforce septic system conversion to municipal sewer system when required by Development Code.	Monitor septic system conversion to municipal sewer system & document sewer system extensions	Ongoing; annual review	Report number of septic systems converted to municipal sewer system each year. Report expansions to municipal sewer system  Track complaints/ concerns City reports to Linn County	Sewer Fund	Three septic systems converted to municipal sewer system in 2021.  Municipal sewer system expanded into new residential developments. No expansion of sewer system to unserved areas not associated with new development in 2021.  The City received no septic system complaints in 2021.
	B. Pet and animal waste	Continue to supply pet waste pickup stations.  Enforce farm animal regulations.	City is providing waste collection stations at City Parks.  Code enforcement of farm animal raising.	Monitor usage of waste collection stations and farm animal compliance with City Code.	Ongoing; annual review	Track approximate costs of maintaining and restocking dog waste stations.  Track responses to complaints regarding animal waste, violations and follow-up actions	General Fund/ Parks	Approximately \$300.00 was spent on restocking dog waste stations.  City installed an additional dog waste station in open space adjacent to street corner which had previously received complaints of animal waste.
	C. Garbage spills	Encourage waste collection companies to cover waste bins during transit.  Encourage adopt-a-road program within the City.	Enforce current traffic code requiring covered loads.  Encourage and support adopt-a-road program by posting information on how to get started to the City web site and referring interested groups to Linn County for county roads. Provide supplies and equipment to adopt-a-road groups.	Monitor roadside debris accumulations through use of maintenance weekly checklists.  Track number and type of supplies (bags, gloves) and equipment (vests, trash pick up tools) provided to adopt-a-road groups.	Ongoing; annual review	Provide example maintenance checklists annually. Report on roadside debris observed and removed and any enforcement actions.  Report on roads adopted and supplies provided by City, including costs, to adopt-a-road groups.	Streets Fund	Example maintenance checklist attached (Attachment 5). No significant roadside debris observed or removed outside of routine trash pick-up.  Adopt-a-road group cleaned up Old Salem Road approximately every other month in 2021. City provided trash pick-up devices, bags, and reflective vests.
<b>3.0 MERCURY</b>	A. Erosion and sedimentation containing mercury from existing background sources and introduced deposits from air and industries.	Reduce soil displacement and control runoff resulting from earthwork through utilization of erosion control best practices.  Maintain and fund City street sweeping program.	Enforce requirements of City grading permit.  Complete and adopt engineering standards, including erosion and sedimentation control section.	Monitor compliance with Code standards and permit requirements.	Enforcement of code standards to be continued indefinitely.  Adoption of engineering standards completed in 2019.	Maintain records of grading permits in file. Track enforcement actions on grading permits.  Provide documentation that engineering standards have	General Fund/ Planning and Development	Four grading permits were issued in 2021 and records are kept on file. No enforcement actions taken on grading permits.  Engineering standards were

						been adopted.		adopted in December of 2019 (see previous report) and are available on the City's website
			Ensure required 1200-C permits for developments are obtained. Require developers to submit documentation of 1200-C permit prior to issuing construction permit.	Demonstrate that 100% of new developments over one acre obtain 1200-C permits.	Ongoing; annual review	Maintain copy of all 1200-C permits in file for each development.	General Fund/ Planning and Development	Copies of 1200-C permits required for developments are in files.
			Adopt erosion control program for smaller areas of disturbance (<1 acre).	Establish template for construction site erosion and sediment control plan (ESCP) and implement a programmatic permit.  Perform public outreach and education to development community and implement permit requirements.	Year 1: Develop and adopt template.  Year 2: Public outreach to developers and contractors  Year 3: Implement permit requirements	Provide template once adopted.  Document public outreach efforts.  Maintain copies of permits in all development files.  Track enforcement actions on erosion control program once in place.	General Fund/ Planning and Development	Stormwater ordinance, including erosion control requirements, was adopted at the end of 2019. Permit/template was developed and adopted by the end of 2020. This is now being revised based on new MS4 permit requirements.  Individual outreach to contractors and developers to educate them on erosion control requirements is ongoing.  Four major and 28 minor erosion permits were issued in 2021. No enforcement actions were taken on erosion permits.
<b>4.0 INTERRELATED FACTORS</b>	A. Stormwater Discharge, a contributing source factor for all three Identified Pollutants.	Provide stormwater detention and treatment.	Enforce existing regulations & perform regular maintenance inspections of existing public facilities.  Complete and adopt engineering standards, including post-construction stormwater detention and water quality.	Monitor effectiveness of existing regulations and maintenance program.  Include design standards which require stormwater treatment in addition to detention.	Ongoing enforcement of existing standards  Adoption of post-construction stormwater quality engineering standards in 2019.  Include requirement for maintenance agreements of private SW facilities in engineering standards.	Maintain records of stormwater calculations and reports in development files.  Track maintenance of facilities  Provide documentation that post construction stormwater quality engineering design standards are in the process of or have been adopted.	General Fund/ Stormwater Fund	Records of stormwater calcs and reports are kept in development files.  Public detention facilities maintenance tracked in maintenance records.  Engineering standards, including post construction stormwater quality were adopted at the end of 2019 (see previous report).
		Adopt the Millersburg Stormwater Master Plan and begin implementation of selected capital projects.	Begin implementation of selected capital projects recommended in the Stormwater Master Plan.	Incorporate stormwater projects into the City's Capital Improvements Program	Master Plan adopted in 2018. Plan and budget for projects beginning in FY 2019-2020.	Implementation of selected projects.	General Fund/ Stormwater Fund	Evaluation of selected projects is ongoing. Based on recent stormwater infrastructure performance during significant rainfall events, projects have been put on hold. This is primarily due to a better maintenance regime.
	B. Disposal & Recycling	Prevent hazardous waste & illegal discharges and encourage recycling.	Work with waste disposal provider (Republic Services) to provide information to the public on disposal regulations and recycling.  Support Hazardous Waste	Regular review of agreement with Republic Services to insure services continue to meet the needs of the community.	Periodic and on-going. Franchise agreement is reviewed every five years, evaluation of services annually.	Maintain record of any reported illegal discharges and enforcement actions. Report on Actions.	General Fund	No reported hazardous waste or illegal discharges in 2021.

			collection days. Advertise on City reader board and website.					
	Illicit Discharge, Detection and Elimination	Monitor ditches during dry weather.  Dry weather screening - inspect 20% of outfalls annually.  Provide reporting/complaint information on City website, including phone number and complaint form.	Track dry weather ditch monitoring and dry weather outfall screening.	Year 1: Establish dry weather screening program. Provide complaint reporting information on website.  Year 2: Begin dry weather monitoring/screening, continue ongoing.	Provide maintenance checklists documenting ditch monitoring.  Report on dry weather outfall screening.  Track responses to complaints.	General Fund/ Stormwater Fund	Tracking of dry weather ditch monitoring was removed from maintenance checklists. Instead, dry weather ditch monitoring was conducted by staff throughout the summer during routine inspections and maintenance staff are instructed to report on any unexpected water in ditches.  Dry weather outfall screening report attached (Attachment 3).  One complaint was received of water in a stormwater ditch during dry weather. Investigation over the course of several weeks determined it came from a leak in a home's water service line. The leak was repaired and the issue was resolved.	
	C. Information Program for Clean Water Act and potential pollutants	Implement outreach and education activities for new local industries and the general public.	Post information or links to City website.  Educate new industries about protection of stormwater.	Develop a stormwater flyer for general public, post to website, and make available at City Hall.  Develop a stormwater flyer for industry and give to new industries at time of permits.	Develop stormwater flyers and post by 12/31/2020.  Annual communication of information to public and report to council.  Provide flyers with annual report.	General Fund/ Stormwater Fund	Stormwater flyers posted to City Website and made available at City Hall.  Flyers attached (Attachments 1 and 2).	
	D. Funding	Provide funding for planning and implementation of needed programs to address pollution.	Seek funding sources, including considering creation of a stormwater utility and fee.	Prepare a working list of potential funding sources.	Ongoing; annual review  Achieve funding to implement planning and implementation of needed programs	General Fund/ Stormwater Fund	Funding was allocated in FY 2020-21 City budget from the City's general fund.  City may consider a stormwater utility and fee in the future if it becomes necessary.	
	E. Intergovernmental Cooperation	Achieve economies and expanded informational base through cooperative associations.	Contact local and statewide organizations addressing environmental issues. Expand participation in Oregon ACWA.	Attend stormwater information sharing events. Participate with other agencies in local collaboration groups.	Ongoing; annual review  Report on events attended and participation in local collaboration groups.	General Fund/ Stormwater Fund	Ongoing participation in ACWA. Attended APWA Virtual Fall Conference stormwater sessions.	
	F. City Council Support for water quality efforts	Ensure City Council is aware of TMDL requirements, TMDL Implementation Plan, and city-wide efforts to improve water quality.	City Council meeting overview and acknowledgement of TMDL Plan, Annual Report, and Five Year Review.	Revised Matrix presented to City Council; Annual City Council meeting minutes.	Ongoing; annual review  Annual meeting with City Council about TMDL responsibilities, progress, funding needs, etc.	General Fund/ Stormwater Fund	During budget meetings in the spring of 2021, stormwater fund functions and funding were reviewed.	
	G. Staff Training and Good Housekeeping	Implement recommendations of Stormwater Master Plan for stormwater system maintenance.	Establish a stormwater system maintenance program per the recommendations of the Stormwater Master Plan.	Program and fund stormwater system maintenance activities: street sweeping, inlet inspection, system cleaning.	Year 1-2: Establish program.  Year 3-5: Implement maintenance program recommendations.	General Fund/ Stormwater Fund	Monthly street sweeping contracted and conducted.  Maintain on-call contract for stormwater services.  Cleaned and TV'd portion of stormwater system in Kathryn Avenue, which was not	

								functioning due to buildup of sediment and debris.
		Annual staff training.	One staff member participate in one training event per year and give presentation to other staff, as applicable.	Participation in one training event annually.	Training - annually, ongoing.	Documentation of training event attended and materials presented to other staff, as applicable.	General Fund/ Stormwater Fund	Attended APWA Virtual Fall Conference stormwater sessions in October 2021. Presentation of materials to other staff not applicable (Millersburg has no other staff this material is applicable to).
	H. Public Involvement	Provide opportunities for public involvement.	Include public outreach events in master plan processes and provide public comment periods for adoption of master plans.  Allow for public comments on stormwater related topics at council meetings.	Provide materials for public review ahead of meetings by posting on website.	Ongoing; annual review	Report on public outreach activities conducted and comments received.	General Fund	In every council meeting, there are two opportunities for public comment on all topics, including stormwater.

# What is stormwater and how does it impact me?

Stormwater is generated from water that falls from the sky, including rain, hail, and snow.

In a natural, undeveloped landscape, most stormwater soaks into the ground to be stored or filtered before it reaches natural waterways. In a city, most stormwater falls onto impervious surfaces (surfaces that do not absorb water) such as roads, driveways, sidewalks, rooftops, or parking lots, and it is not soaked up by the ground. This water flows across these surfaces as runoff.

Most stormwater flows from private property to a stormwater inlet in the street where it enters a pipe and is carried to the nearest waterway. The network of stormwater pipes is completely separate from the sanitary sewer system. Unlike the sanitary sewer system, which conveys wastewater to a treatment facility, the stormwater system conveys *untreated* runoff directly to our waterways.

## **Stormwater Quality – Keep it Clean!**

As runoff flows across the ground, it picks up pollutants that you can see (debris, dirt, and grease) and others that can't be seen (fertilizers and detergents). There is a lot you can do to help keep our waterways clean.

For example:

- Use a commercial car wash to minimize the amount of dirty, soapy water flowing into the stormwater system.
- Check your vehicles and equipment for leaks and spills.
- Clean up spilled fluids with an absorbent material and don't rinse the spills into a nearby storm drain.
- Recycle used oil and other fluids; do not dump these chemicals down the storm drain.
- Use pesticides and fertilizers sparingly.
- Sweep up yard debris instead of hosing down areas.
- Don't overwater your lawn.



Used with permission of City of Wilmington, NC Stormwater Services: Heal Our Waterways

Whatever you keep out of the storm drain, you keep out of our streams. More ideas can be found at [https://www3.epa.gov/npdes/pubs/solution\\_to\\_pollution.pdf](https://www3.epa.gov/npdes/pubs/solution_to_pollution.pdf)

### ***Runoff Volume – Reducing Impacts on Yourself and Others***

Stormwater runoff can cause problems for you or your neighbors if not appropriately handled. Altering drainage patterns or increasing the impervious surface area on your property can create stormwater problems, including localized flooding. Increased runoff can also cause erosion and sedimentation (when solids in water settle) by sweeping away and displacing soil. Reducing or minimizing the amount of paved area and increasing the amount of vegetated area in your yard can help increase infiltration and reduce runoff.





*Partnering with business and industry to maintain quality small-town atmosphere.*

## What Is Stormwater Runoff and What Are Its Impacts?

Stormwater runoff is water from rain or snowmelt that does not immediately infiltrate into the ground and flows over or through natural or man-made storage or conveyance systems. When undeveloped areas are converted to land uses with impervious surfaces such as buildings, parking lots, and roads, the natural hydrology of the land is altered and can result in increased surface runoff rates, volumes, and pollutant loads.

Stormwater runoff picks up industrial pollutants and typically discharges them directly into nearby waterbodies or indirectly via storm sewer systems. Runoff from areas where industrial activities occur can contain toxic pollutants (e.g., heavy metals and organic chemicals) and other pollutants such as trash, debris, and oil and grease, when facility practices allow exposure of industrial materials to stormwater. This increased flow and pollutant load can impair waterbodies, degrade biological habitats, pollute drinking water sources, and cause flooding and hydrologic changes to the receiving water, such as channel erosion.

Industrial facilities typically perform a portion of their activities in outdoor areas exposed to the elements. This may include activities such as material storage and handling, vehicle fueling and maintenance, and shipping and receiving, all of which can result in pollutants being exposed to precipitation and capable of being carried off in stormwater runoff. Also, facilities may have performed industrial activities outdoors in the past and materials from those activities still remain exposed to precipitation. In addition, accidental spills and leaks, improper waste disposal, and illicit connections to storm sewers may also lead to exposure of pollutants to stormwater.<sup>1</sup>

### **Six Types of Activities that have Potential to be Pollutants in Stormwater**

#### *1. Loading and Unloading Operations*

Loading and unloading operations can include pumping of liquids or gases from tankers to

storage facilities, pneumatic transfer of dry chemicals, transfer by mechanical conveyor systems, or transfer of bags, boxes, drums or other containers by forklift or other material handling equipment. Material spills or losses in these areas can accumulate and be washed away during a storm.

#### *2. Outdoor Storage*

Outdoor storage activities include storage of fuels, raw materials, by-products, intermediate products, final products, and process residuals. Materials may be stored in containers, on platforms or pads, in bins, boxes or silos, or as piles. Storage areas that are exposed to rainfall and/or runoff can contribute pollutants to stormwater when solid materials wash off or materials dissolve into solution.

#### *3. Outdoor Process Activities*

Although many manufacturing activities are performed indoors, some activities, such as timber processing, rock crushing, and concrete mixing, occur outdoors. Outdoor processing activities can result in liquid spillage and losses of material solids, which makes associated pollutants available for discharge in runoff.

#### *4. Dust or Particulate Generating Processes*

Dust or particulate generating processes include industrial activities with stack emissions or process dusts that settle on surfaces. Some industries, such as mines, cement manufacturing, and refractories, also generate significant levels of dust that can be mobilized in stormwater runoff.

#### *5. Illicit Connections and Non-Stormwater Discharges*

Illicit connections of process wastes or other pollutants to stormwater collection systems, instead of to sanitary sewers, can be a significant source of stormwater pollution. Non-stormwater discharges include any discharge from the facility that is not generated by rainfall runoff (for example, wash water from industrial processes). With few exceptions, these non-stormwater discharges are prohibited.

<sup>1</sup>From "Developing Your Stormwater Pollution Prevention Plan: A Guide for Industrial Operators," by Environmental Protection Agency, 2009, EPA 833-B-09-002

<sup>2</sup>From "Best Management Practices For Industrial Storm Water Pollution Control," by Sacramento Stormwater Management Program.

## 6. Waste Management

Waste management practices include everything from landfills to waste piles to trash containment. All industrial facilities conduct some type of waste management at their site, much of it outdoors, which must be controlled to prevent pollutant discharges in stormwater.<sup>1</sup>

### Stormwater Pollution Prevention

#### 1. Prevent water from contacting working areas

Shipping areas, outdoor equipment, material storage areas, vehicle maintenance spaces, and working areas of all sorts are subject to contamination with raw materials, process liquids, grease, oily wastes, vehicle fluids, heavy metals, and miscellaneous potential pollutants. If you prevent stormwater, wash water, or water from other sources from contacting areas exposed to pollutants, you will be less likely to discharge pollutants into your storm drains.

- Keep rainfall from directly contacting working areas, by installing roofs, placing structures, or moving industrial operations indoors.
- Prevent run-on stormwater from contacting industrial areas, indoors or out by using properly designed berms or grading. Run-on is water that flows across the industrial area. It picks up pollutants as it flows.
- Avoid practices where you use water that later enters the storm drains. For instance, washing in outdoor areas. Most of these practices, including many that were acceptable in the past, are now considered to be "illegal dumping" of non-storm water to the storm drain.

#### 2. Keep pollutants off surfaces that come into contact with water.

Evaluate your site carefully to identify all areas that are contacted by storm water, wash water, cooling water that is otherwise unpolluted, or other water that is allowed to be discharged to the storm drain. Then take special care to keep pollutants off these surfaces. That means controlling minor leaks and spills that you might otherwise overlook, and taking a close look at your operating routines and equipment to determine whether any substances are exposed to storm water that do not need to be.

#### 3. Manage stormwater before it is discharged to the storm drain.

If you can't avoid adding pollutants to stormwater, you may need to remove pollutants to meet water quality requirements before discharge. Stormwater control regulations consider treatment as a last resort and emphasize source control options because they are usually less costly and more effective in the long run.<sup>2</sup>

### Stormwater Millersburg Permit Requirements

Federal and state storm water regulations now require many kinds of industrial facilities to take steps to prevent stormwater pollution.<sup>2</sup> Below is a list of permits that may be required in the City of Millersburg.

- City of Millersburg Grading permit
- City of Millersburg Post Construction Stormwater Quality permit
- City of Millersburg Erosion Control permit
- NPDES 1200-C permit



<sup>1</sup>From "Developing Your Stormwater Pollution Prevention Plan: A Guide for Industrial Operators," by Environmental Protection Agency, 2009, EPA 833-B-09-002

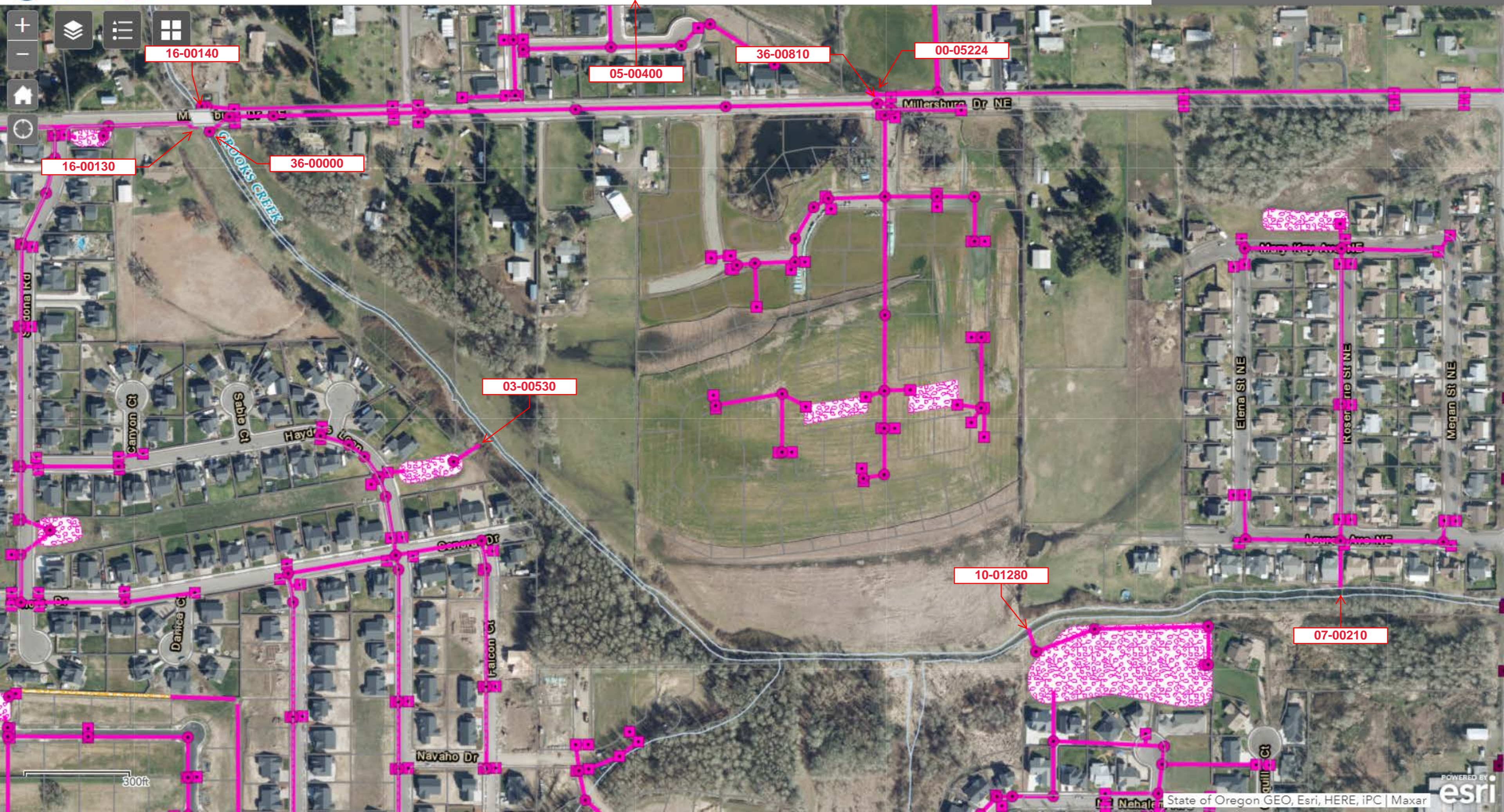
<sup>2</sup>From "Best Management Practices For Industrial Storm Water Pollution Control," by Sacramento Stormwater Management Program.



Last Updated 9/17/2021

Total number of outfalls: 23  
 Number inspected in 2021: 6  
 % inspected in 2021: 26%

Stormwater Outfall Check								
Previous Inspection Date	Inspection Date	Inspector Initials	Outfall ID	Description	MS4 Outfall	Receiving water body	Status	Field Notes:
	9/1/2021	PT	03-00530	Becker Ridge East Detention Basin Outfall	Y	Crooks Creek		See attached inspection sheet.
7/30/2020	9/17/2021	PT	05-00400	Hoffman Estates Detention Basin Outfall	Y	Crooks Creek Trib		See attached inspection sheet.
	8/31/2021	PT	07-00210	Morningstar Subdivision Detention Basin outfall	Y	Crooks Creek		See attached inspection sheet.
	8/31/2021	PT	16-00130	Becker Ridge North and West Detention Basins Outfall	Y	Crooks Creek		See attached inspection sheet.
	8/31/2021	PT	16-00140	Millersburg Drive, north side discharge to Crooks Creek	Y	Crooks Creek		See attached inspection sheet.
	8/31/2021	PT	36-00000	West Valley Estates Detention Basin Outfall - located on south side of Millersburg Drive at east end of bridge over Crooks Creek	Y	Crooks Creek		See attached inspection sheet.



16-00140

05-00400

36-00810

00-05224

16-00130

36-00000

03-00530

10-01280

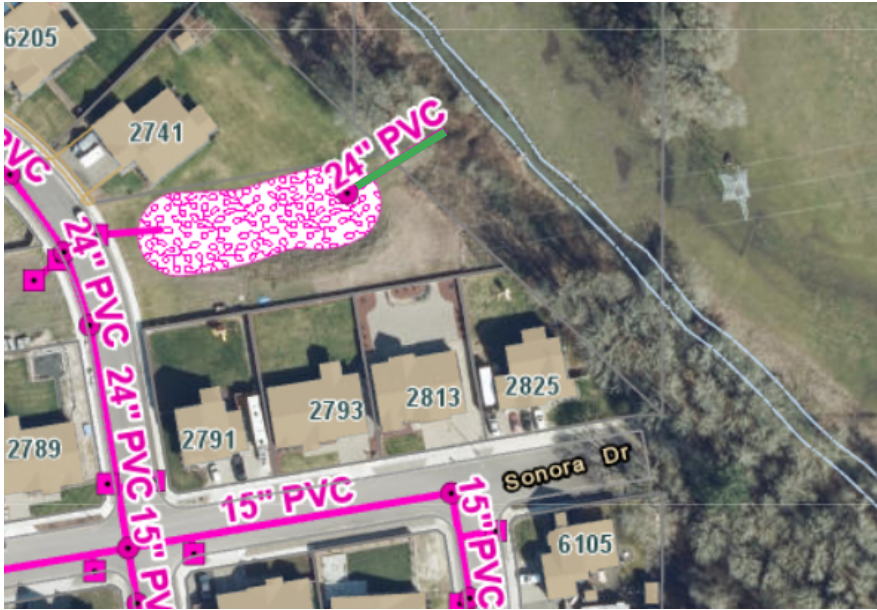
07-00210

300ft

# 03-00530

## City of Millersburg

### Aerial View



### Outlet Photograph



### Access Notes

Northwest of detention pond that is located off of NE Tuscan Ln. between NE Mesa Ct. and NE Sonora Dr.

Property Owner - Hayden Irish

### List of Inspections

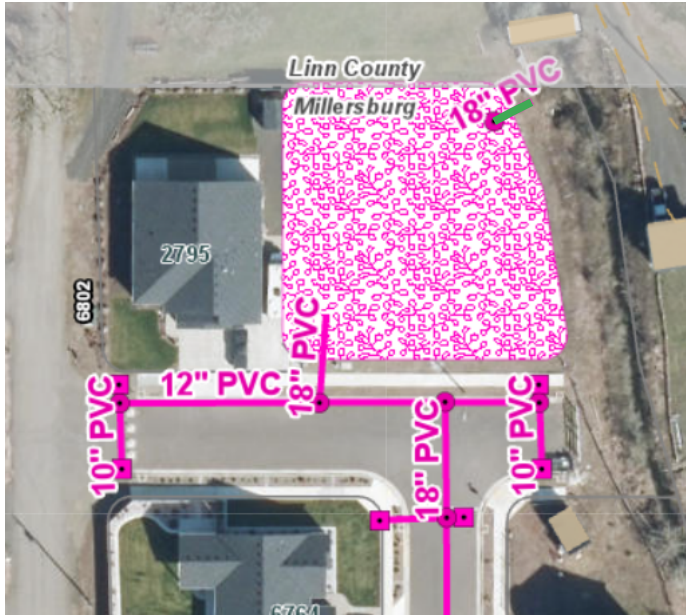
08/31/2021 - Minor flow of water (presence of water potentially due to residential water leak from damaged back flow device, recheck at later date).

09/01/2021 - Re-investigated source of water flowing through the outlet and determined that it was due to a known spring entering storm drain system in Tuscan Loop.

# 05-00400

## City of Millersburg

### Aerial View



### Access Notes

Slightly northeast of detention basin just north of the intersection between NE Shayla Dr. and NE Noel Ln.

Property Owner - Robert Hoffman

### List of Inspections

09/17/2021 - Dry

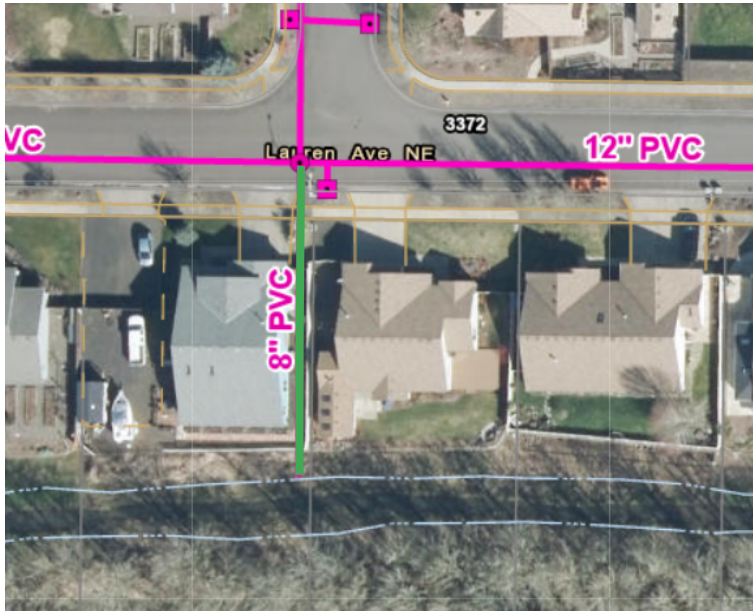
### Outlet Photograph



# 07-00210

## City of Millersburg

### Aerial View



### Outlet Photograph



### Access Notes

South of the intersection of NE Lauren Ave. and NE Rosemarie St. Accessed via path located just south of Crooks Creek along Old Salem Road.

Property Owner - Walter and Lorraine Weathers

### List of Inspections

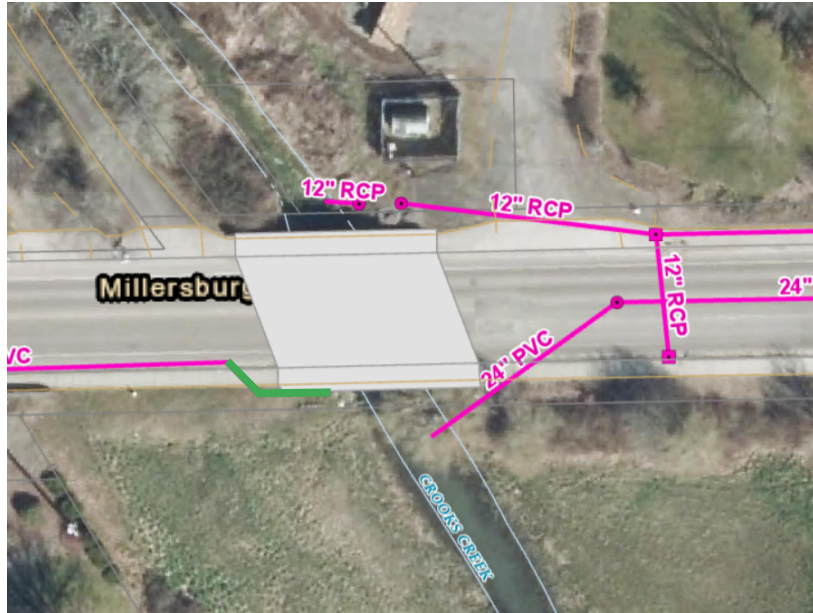
08/31/2021 - Dry

Structure with a flap gate located just north, outlet pipe to creek is 8" potentially a larger pipe is entering structure

# 16-00130

## City of Millersburg

### Aerial View



### Access Notes

Slightly southwest of bridge on Millersburg Dr.  
Property Owner - David and Valerie Phelps

### List of Inspections

08/31/2021 - Dry

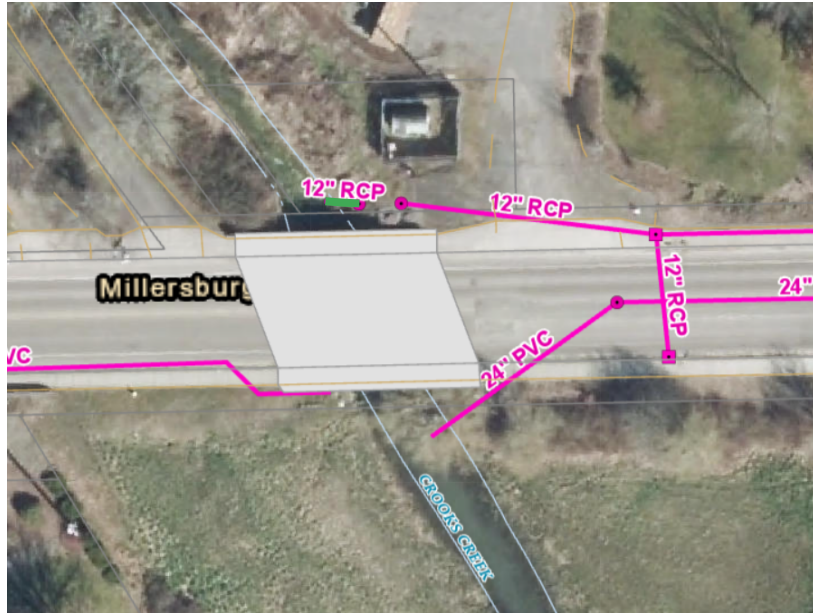
### Outlet Photograph



# 16-00140

## City of Millersburg

### Aerial View



### Access Notes

Slightly north of bridge on Millersburg Dr.

Property Owner - City of Millersburg

### List of Inspections

08/31/2021 - Dry

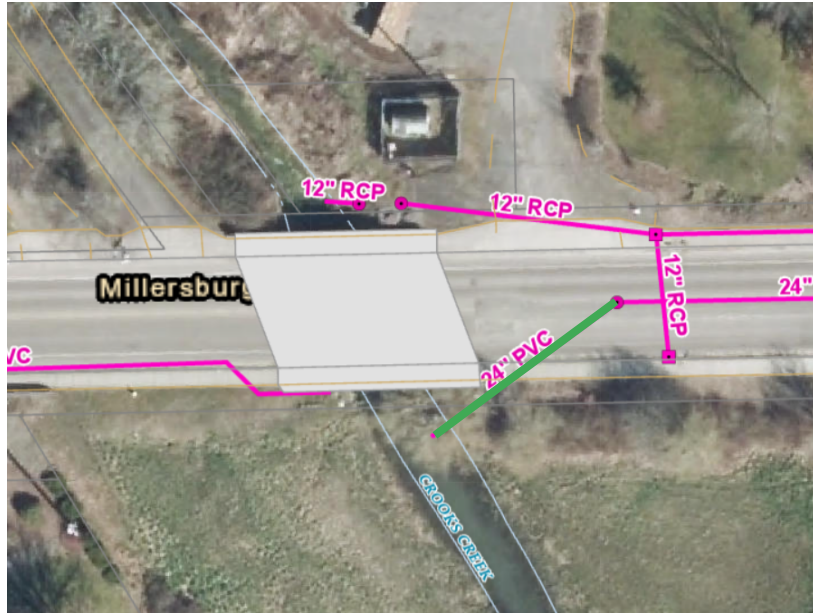
### Outlet Photograph



# 36-00000

## City of Millersburg

### Aerial View



### Access Notes

Slightly southeast of bridge on Millersburg Dr.

Property Owner - David and Valerie Phelps

### List of Inspections

08/31/2021 - Dry

### Outlet Photograph





Builders Meeting

Sarah's Meadows

9:00 a.m. 10/7/2021

Review permit packet materials

1. Right-of-Way Work
  - a. Driveway cuts
    - i. Width allowed per code
    - ii. Horizontal cut only
  - b. Sidewalks (thicker behind driveways)
  - c. Planter Strips
  - d. Roof drain discharge – through curb weephole (core drill only)
2. Grading and Drainage
  - a. Drain to street, not adjacent properties
  - b. Maximum lot coverage
3. Erosion Control
  - a. Go over items on Minor Land Disturbance Erosion Control Permit
  - b. Hand out flyer "What to Do and What NOT to do (BMP's)"
  - c. Once they are completed, protect stormwater swales/planters from sediment during construction by placement of biofilter bags and notches.
4. Street Trees
  - a. Code requires one in planter strip (where possible)
  - b. List of approved trees included in permit packet
  - c. Not within 10 ft of water service or sewer lateral
  - d. Sight clearance at corners and stop signs
  - e. 2-year warranty on street trees
5. City final (C of O) inspection requirements
  - a. Curbs and gutters
  - b. Sidewalks
  - c. Sight clearance (if applicable)
  - d. Landscape planter strip (all frontages), including street trees (if applicable)
  - e. Front yard landscaping, including required trees and plantings
  - f. Backflow device (if applicable)
  - g. Water meter and vault
  - h. Public sewer cleanout
  - i. Lot grading and drainage

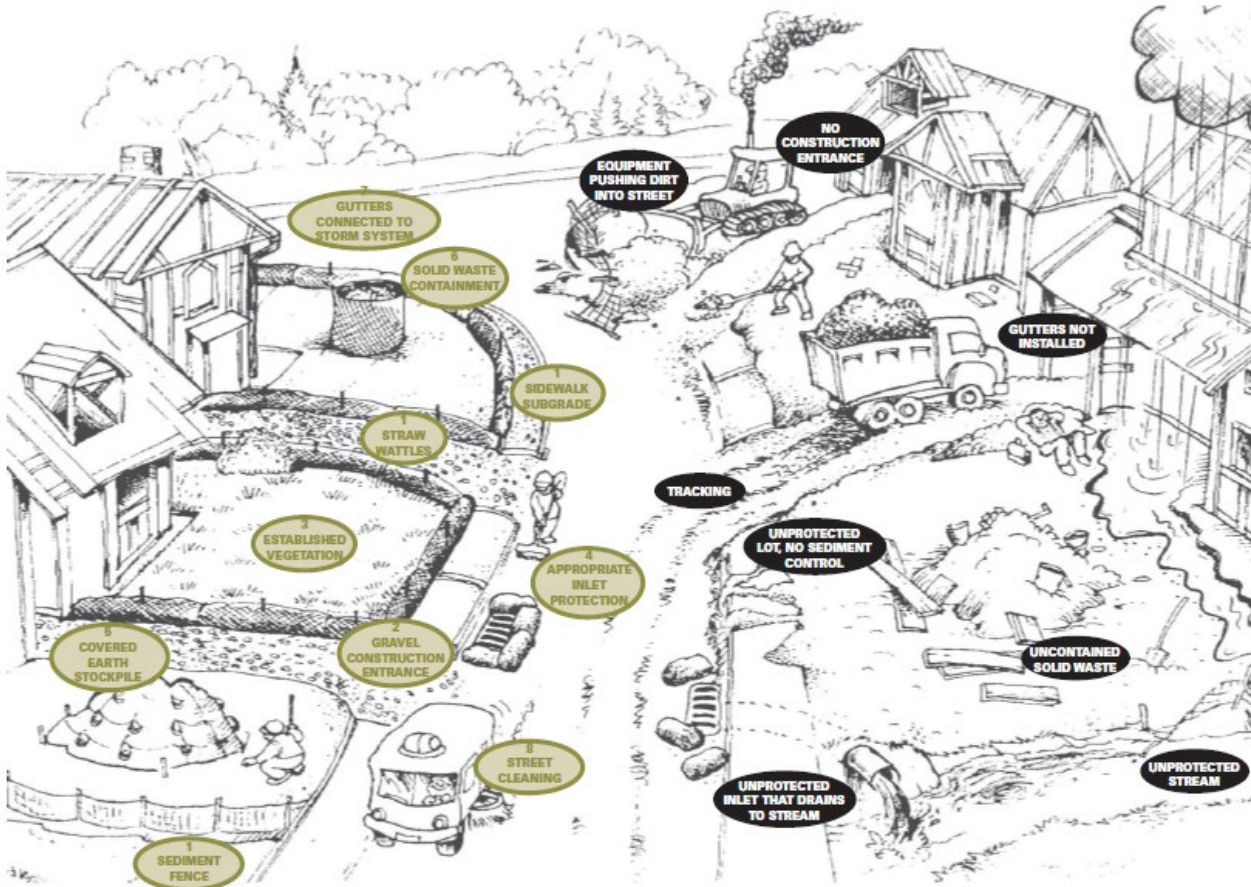
## Minor Land Disturbance Erosion Prevention and Sediment Control Plan Checklist

Please select the EPSC measures and Best Management Practices (BMPs) you plan to use for your project.

<b>EPSC Measures and BMPs</b>	<b>Y</b>	<b>N/A</b>
Silt fences	<input type="checkbox"/>	<input type="checkbox"/>
Bio-filter bags or fiber rolls	<input type="checkbox"/>	<input type="checkbox"/>
Storm drain inlet protection	<input type="checkbox"/>	<input type="checkbox"/>
Temporary grasses	<input type="checkbox"/>	<input type="checkbox"/>
Mulch applications	<input type="checkbox"/>	<input type="checkbox"/>
Erosion blankets	<input type="checkbox"/>	<input type="checkbox"/>
Concrete washout area	<input type="checkbox"/>	<input type="checkbox"/>
Preserve natural vegetation	<input type="checkbox"/>	<input type="checkbox"/>
Plastic sheeting	<input type="checkbox"/>	<input type="checkbox"/>
Dust control	<input type="checkbox"/>	<input type="checkbox"/>
Gravel construction entrance	<input type="checkbox"/>	<input type="checkbox"/>
Permanent vegetation cover	<input type="checkbox"/>	<input type="checkbox"/>

Note:

## What to DO and What NOT to do Best Management Practices (BMP's)



1. Work site perimeter protection
  - Install straw wattles or mulch berms where sediment fencing is not practical.
  - Utilize sidewalk sub-grade area to trap sediments in runoff where possible.
  - Mark construction limits with sediment or construction fencing.
  - Make sure that all workers are aware of the limits to construction activities.
2. Gravel construction entrance
  - Install an entrance adequate to last through the job.
  - Use clean, large crushed rock with no fines (placed over geotextile fabric if necessary).
  - Consider rocking other areas necessary for subcontractor parking.
3. Ground cover and vegetation
  - Stabilize soil as soon as grading is complete.
  - Use compost, straw mulch and seed, or other ground covers before the wet season.
  - Coordinate the application of groundcover (straw, dark dust or wood chips) with landscaping plans.
4. Inlet protection
  - Use catch basin inserts in high traffic areas. Use bio-bags to protect irregular-shaped inlets.
  - Check daily, as traffic can knock barriers out of place, and accumulated sediments will need to be removed. Maintain after every major storm.
5. Covered earth stockpile
  - Cover stockpiles during wet weather season (October 1 through April 30).
  - Use weighted plastic or a 3-inch layer of mulch, straw or wood chips.
  - Make sure that concentrated flows from plastic covered stockpiles do not generate erosion.
  - Seed stockpiles from long-term protection.
6. Solid waste containment
  - Keep trash and building wastes out of streets and storm drain systems.
  - Separate and cover construction wastes, or remove them from the site.
7. Street cleaning
  - Don't clean mud on sidewalks or streets by hosing it down.
  - Mechanically remove sediments from streets and sidewalks by scraping with a flat blade shovel or sweeping. Remove the sediments to a stable site.



# WEEKLY MAINTENANCE CHECKLIST

Week of: \_\_\_\_\_

*Initial when complete*

## **Millersburg Park:**

- \_\_\_\_\_ Restroom floors – mop or hose down, squeegee to ensure dry when done
- \_\_\_\_\_ Shelter floor - Clean/hose down
- \_\_\_\_\_ Sweep/blow hard surfaces including walkways and parking lots
- \_\_\_\_\_ Mow grass, including ball fields (March/April – October)
- \_\_\_\_\_ Blow grass clippings off paths and sidewalks following each mowing
- \_\_\_\_\_ Clean BBQs (March/April – October)
- \_\_\_\_\_ Leaf removal (November - March)
- \_\_\_\_\_ Blow leaves/debris off paths and sidewalks/collect leaves
- \_\_\_\_\_ Remove fallen branches
- \_\_\_\_\_ Empty waste receptacles and place new liners
- \_\_\_\_\_ Restock dog bag stations
- \_\_\_\_\_ Check shelter for birds or insects, nests, droppings, webs, etc. Clean as needed
- \_\_\_\_\_ Rake volleyball court, remove debris or hazards (March/April – October)
- \_\_\_\_\_ Clean out BBQs as needed (March/April – October)

## **Acorn Park:**

- \_\_\_\_\_ Walk grounds, inspect for maintenance needs and safety issues (note any deficiencies below and on issues/deficiencies list)
- 
- \_\_\_\_\_ Pick up trash
  - \_\_\_\_\_ Check waste receptacles, empty and place new liners as needed
  - \_\_\_\_\_ Restock dog bag stations
  - \_\_\_\_\_ Remove fallen branches
  - \_\_\_\_\_ Mow grass (March/April – October)
  - \_\_\_\_\_ Blow grass clippings off paths and sidewalks following each mowing
  - \_\_\_\_\_ Leaf removal (November - March)
  - \_\_\_\_\_ Blow leaves/debris off hard surfaces and collect leaves

**City Hall Grounds:**

\_\_\_\_\_ Walk grounds, inspect for maintenance needs and safety issues (note any deficiencies below and on issues/deficiencies list)

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---

\_\_\_\_\_ Pick up trash

\_\_\_\_\_ Empty exterior waste receptacles and place new liners

\_\_\_\_\_ Mow every other week (March/April – October)

**Road Rights-of-Way:**

\_\_\_\_\_ Drive arterials and collectors (Old Salem Road, Conser Road, Millersburg Drive, Alexander, Woods Road, Morningstar Road) inspect for maintenance needs and safety issues (note any deficiencies below and on issues/deficiencies list)

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\_\_\_\_\_ During dry weather, is water present in ditches? If so, note location(s) \_\_\_\_\_

---

\_\_\_\_\_ Pick up trash and/or note where additional trash removal is needed

\_\_\_\_\_ Vegetation removal – cut vegetation and spray one road each week May through October per right-of-way maintenance schedule

Road/ROW name: \_\_\_\_\_

**Stormwater Detention Basins:**

\_\_\_\_\_ Mow and pick up trash at one detention basin each week May through October per detention basin maintenance schedule

Detention basin name: \_\_\_\_\_

During dry weather, is water present in detention basin or exiting outfall? \_\_\_\_\_

**Fire Station Grounds:**

\_\_\_\_\_ Mow grass in field (once a month March/April – October)

**Equipment:**

\_\_\_\_\_ Check mower blades, change if needed (March/April – October)

\_\_\_\_\_ Checks on large equipment (mowers, tractor, Kubota), record in Equipment Maintenance Logs

**TMDL Implementation Tracking Matrix: Millersburg, Oregon STATUS UPDATED FOR 2019-2024, Rev. 2022 – 2022 Report**

Millersburg has legal authority over land use on 2,850 acres within the City Limits. The Willamette River forms the western boundary of the City between river-mile 115.5 and 117.75 for approximately 2.25 miles. The City is implementing its MS4 Phase 2 Permit throughout its entire jurisdiction in order to also meet the NPS load allocations (LA) for the Mercury TMDL.

<b>POLLUTANT</b> <i>Pollutants Addressed by the TMDL.</i>	<b>POLLUTANT SOURCES</b>	<b>STRATEGY</b> <i>What Millersburg is doing and will do to reduce pollution from this source.</i>	<b>ACTIONS</b> <i>Specific Implementation Measures.</i>	<b>BENCHMARKS</b> <i>Intermediate indicators of progress.</i>	<b>TIMELINE</b> <i>Beginning and completion dates.</i>	<b>MEASURE</b> <i>Demonstrate implementation or completion of the strategy.</i>	<b>PROGRAM FUNDING</b>	<b>STATUS – 2022 Report</b>
<b>1.0 TEMPERATURE</b>	A. Solar Radiation	Maintain existing riparian plantings and shading vegetation.	Update Land Use Development Code to include more provisions for riparian vegetation protection, including greater setbacks for drainage ways.  Code enforcement of riparian and vegetative protections.  When doing drainage way maintenance/brush removal activities, remove only obstructions to the flow. Protect trees and larger vegetation outside the active channel which provide shading and grass/vegetation within the channel which does not obstruct flow.	Compare aerial photographs at periodic intervals to determine the state of and changes to riparian areas.  Visually inspect Crooks Creek main channel and its two northern tributaries within City limits.	Continue to enforce City's current Development Code (1984 & 2006) until revised code is adopted; ongoing  Current code revision is underway with adoption anticipated in 2019. Begin enforcement upon adoption of new code.  Visual inspection of Crooks Creek and tributaries annually.  Aerial photo analysis annually or as new open source aerial photos become available.	Yearly review of standards compliance.  Report on visual inspection of Crooks Creek and tributaries.  Annual progress of code revision.	General Fund/ Stormwater Fund	Code revision complete.  Codes were enforced through land use reviews, grading, and stormwater permits.  Received one complaint regarding removal of vegetation in a residential backyard along Crooks Creek. Report included as Attachment 1.  Visual inspection of Crooks Creek and tributaries conducted. No significant changes to riparian plantings and shading vegetation.
		Perform public outreach and education on riparian regulations and the benefits of riparian plantings and shading vegetation on private property.	Public outreach and education through posting materials to City website and/or fliers on benefits of riparian plantings and shading. Provide guidance to private property owners when requested.	Distribute or post outreach materials minimum of once per year.	Years 1-5: Outreach materials reviewed annually and updated if needed.  Years 1-5: Maintain up-to-date website  Years 1-5: Perform a minimum of one outreach event and one flyer/ mailing each year.	Track and document outreach and education events, mailings, postings and other efforts; annual review.	General Fund/ Stormwater Fund	Continued to host website page for stormwater, which includes TMDL reports, Stormwater Master Plan, and flyers for residents, businesses, and industries.  Table at annual Millersburg Celebration event in September 2022 included stormwater information and staff available to answer questions.
		Maintain existing shading vegetation in riparian areas on City-owned property.	Monitor health of existing vegetation in riparian areas on City-owned property.	Visually inspect trees annually. Engage arborist if conditions of concern exist.	Visual inspection by City staff annually. Evaluation by arborist as needed, minimum every 5 years.	Report on annual visual inspection and arborist evaluation, as applicable. Report on implementation of arborist recommendations.	General Fund/ Stormwater Fund	Annual visual inspection of trees conducted. Trees within riparian areas generally have not changed. Some ivy present, will continue to monitor.
	B. Impervious Surface Runoff	Minimize new paving and roof areas, as practicable to reduce stormwater temperature increases.	Enforce maximum ground coverage standards per Land Use Development Code Zones and Zoning Regulations.	Monitor subdivision and building site plans.  Track approved variances	Ongoing; annual review	Track and document compliance review of new development, approved variances, violations and enforcement actions.	General Fund/ Planning and Development	New development was constructed in compliance with ground coverage standards. No variances were approved and no enforcement actions were taken.  There were multiple occurrences of staff discussing lot coverage standards with property owners when applying for or considering building permits for additional

								structures. Permits for additional structures not issued if lot coverage requirements would be exceeded.
	C. Industrial Storm Water Discharges	Ensure regulations for industrial storm water are communicated to new industries.	Inform applicants of 1200-Z and 1200-C permit requirements and direct them to contact DEQ.  Notify DEQ of any reported complaints regarding industrial stormwater discharges.	Track notification to new applicants.  Track any notifications to DEQ.	Ongoing; annual review.	Yearly review of compliance in notifying new applicants of 1200-C and 1200-Z requirements.  Report any complaint notifications to DEQ	General Fund/ Planning and Development	No new industries started operation in the city in 2022. Several expressed interest in available properties and were made aware of 1200-C and 1200-Z requirements.  In 2022, no industrial stormwater complaints were received by the City.
<b>2.0 BACTERIA</b>	A. Septic Systems  (approximately 4% of the City's dwellings are on individual septic systems)	Contact Linn County Environmental Health about reported concerns with existing septic systems.  Ensure system conversion to municipal sewer system is required for new or redevelopment per the Development Code.	Continue expansion of municipal sewer system to serve all areas of the City.  Enforce septic system conversion to municipal sewer system when required by Development Code.	Monitor septic system conversion to municipal sewer system & document sewer system extensions	Ongoing; annual review	Report number of septic systems converted to municipal sewer system each year. Report expansions to municipal sewer system  Track complaints/ concerns City reports to Linn County	Sewer Fund	No septic systems converted to municipal sewer system in 2022.  Municipal sewer system expanded into new residential developments. No expansion of sewer system to unserved areas not associated with new development in 2022.  The City received no septic system complaints in 2022.
	B. Pet and animal waste	Continue to supply pet waste pickup stations.  Enforce farm animal regulations.	City is providing waste collection stations at City Parks.  Code enforcement of farm animal raising.	Monitor usage of waste collection stations and farm animal compliance with City Code.	Ongoing; annual review	Track approximate costs of maintaining and restocking dog waste stations.  Track responses to complaints regarding animal waste, violations and follow-up actions	General Fund/ Parks	Approximately \$500.00 was spent on restocking dog waste stations.  No complaints received regarding animal waste.
	C. Garbage spills	Encourage waste collection companies to cover waste bins during transit.  Encourage adopt-a-road program within the City.	Enforce current traffic code requiring covered loads.  Encourage and support adopt-a-road program by posting information on how to get started to the City web site and referring interested groups to Linn County for county roads. Provide supplies and equipment to adopt-a-road groups.	Monitor roadside debris accumulations through use of maintenance weekly checklists.  Track number and type of supplies (bags, gloves) and equipment (vests, trash pick up tools) provided to adopt-a-road groups.	Ongoing; annual review	Provide example maintenance checklists annually. Report on roadside debris observed and removed and any enforcement actions.  Report on roads adopted and supplies provided by City, including costs, to adopt-a-road groups.	Streets Fund	Example maintenance checklist attached (Attachment 2). No significant roadside debris observed or removed outside of routine trash pick-up.  Adopt-a-road group cleaned up Old Salem Road every other month in 2022. City provided trash pick-up devices, bags, and reflective vests.
<b>3.0 MERCURY</b>	A. Erosion and sedimentation containing mercury from existing background sources and introduced deposits from air and industries.	Strategy: Pollution Prevention and Good Housekeeping for Municipal Operations	Actions: Reduce discharge of mercury-related pollutants, such as sediment, through the stormwater conveyance system. Conduct municipal operation and maintenance activities in a manner that reduces the discharge of pollutants to protect water quality.	Benchmarks: See Phase 2 MS4 General Permit, Schedule A.3.f.	Timeline: See Phase 2 MS4 General Permit, Schedule A.3.f.i	Measure: See Phase 2 MS4 General Permit Schedule A.3.f	Funding: General Fund/ Stormwater Fund	Maintenance of the storm sewer system is conducted by contract. City has SOPs for applicable activities to reduce pollution in runoff from municipal activities. One City facility has a Runoff Control Plan.
		Public Education and Outreach	Conduct ongoing education and outreach program to inform the public about the impacts of stormwater discharges on	See Phase 2 MS4 General Permit, Schedule A.3.a	See Phase 2 MS4 General Permit, Schedule A.3.a.i	See Phase 2 MS4 General Permit, Schedule A.3.a	Funding: General Fund/ Stormwater	Materials posted on Millersburg website, available at Millersburg Celebration. Stormwater also discussed in City council

			waterbodies and steps they can take to reduce mercury-related pollutants in stormwater runoff.				Fund	meetings.
		Public Involvement and Participation	Implement public involvement and participation program that provides opportunities for the public to effectively participate in the development of stormwater control measures.	See Phase 2 MS4 General Permit, Schedule A.3.b	See Phase 2 MS4 General Permit, Schedule A.3.b.i	See Phase 2 MS4 General Permit, Schedule A.3.b	Funding: General Fund/ Stormwater Fund	Millersburg is active in informing the public, businesses and City Council about the MS4 Permit and its requirements, as well as how waterways can be protected by eliminating polluted discharges. The City has a complaint/reporting system in place on its website that can be accessed 24/7.
		Illicit Discharge Detection and Elimination	Implement and enforce a program to detect and eliminate illicit discharges into the stormwater conveyance system.	See Phase 2 MS4 General Permit, Schedule A.3.c	See Phase 2 MS4 General Permit, Schedule A.3.c.i	See Phase 2 MS4 General Permit, Schedule A.3.c	Funding: General Fund/ Stormwater Fund	Outfalls are identified and added to GIS; ordinance is in place to prohibit non-stormwater discharges, dry weather screening is being conducted, and investigating complaints received. IDDE Manual in process.
		Construction Site Runoff Control	Refer Projects to DEQ to obtain NPDES 1200-C permit for construction projects that disturb one or more acres (or that disturb less than one acre if it is part of a "common plan of development or sale" disturbing one or more acres).	See Phase 2 MS4 General Permit, Schedule A.3.d.iii	See Phase 2 MS4 General Permit, Schedule A.3.d.i	See Phase 2 MS4 General Permit, Schedule A.3.d.iii	Funding: General Fund/ Stormwater Fund	Projects are referred to DEQ and copies of 1200-C permits required for developments are in files.
			Require construction site operators to complete and implement an Erosion and Sediment Control Plan for construction sites that disturb 10,000 square feet or more and are not already covered by a 1200-C permit	See Phase 2 MS4 General Permit, Schedule A.3.d.iv	See Phase 2 MS4 General Permit, Schedule A.3.d.i	See Phase 2 MS4 General Permit, Schedule A.3.d.iv	Funding: General Fund/ Stormwater Fund	City has ordinance in place and existing erosion and sediment control permit requirements. An Erosion Prevention and Sediment Control (EPSC) Manual has been developed that contains details on addressing permit requirements. Inspections are conducted.
			Require erosion controls, sediment controls, and waste materials management controls to be used and maintained at all qualifying construction projects from initial clearing through final stabilization.	See Phase 2 MS4 General Permit, Schedule A.3.d.ii	See Phase 2 MS4 General Permit, Schedule A.3.d.i	See Phase 2 MS4 General Permit, Schedule A.3.d.ii	Funding: General Fund/ Stormwater Fund	
			Develop, implement, and maintain a written escalating enforcement and response procedure.	See Phase 2 MS4 General Permit, Schedule A.3.d.vii	See Phase 2 MS4 General Permit, Schedule A.3.d.i	See Phase 2 MS4 General Permit, Schedule A.3.d.vii	Funding: General Fund/ Stormwater Fund	Currently under development, to be completed within MS4 Phase II General permit compliance term (no later than Feb 28, 2024)
			Track implementation of construction site runoff program required activities.	See Phase 2 MS4 General Permit, Schedule A.3.d.ix	See Phase 2 MS4 General Permit, Schedule A.3.d.i	See Phase 2 MS4 General Permit, Schedule A.3.d.ix	Funding: General Fund/ Stormwater Fund	Tracking is currently being done in compliance with MS4 Phase II General Permit.
			Post-Construction Site Runoff for New Development and Redevelopment	Develop, implement, and enforce a program to reduce discharges of pollutants and control post-construction stormwater runoff from new development and	See Phase 2 MS4 General Permit, Schedule A.3.e	See Phase 2 MS4 General Permit, Schedule A.3.e.i	See Phase 2 MS4 General Permit, Schedule A.3.e	Funding: General Fund/ Stormwater Fund



			redevelopment project sites.					their compliance with the code and standards.
<b>4.0 INTERRELATED FACTORS</b>	A. Stormwater Discharge, a contributing source factor for all three Identified Pollutants.	Provide stormwater detention and treatment.	Enforce existing regulations & perform regular maintenance inspections of existing public facilities.  Complete and adopt engineering standards, including post-construction stormwater detention and water quality.	Monitor effectiveness of existing regulations and maintenance program.  Include design standards which require stormwater treatment in addition to detention.	Ongoing enforcement of existing standards  Adoption of post-construction stormwater quality engineering standards by end of 2019.  Include requirement for maintenance agreements of private SW facilities in engineering standards.	Maintain records of stormwater calculations and reports in development files.  Track maintenance of facilities  Provide documentation that post construction stormwater quality engineering design standards are in the process of or have been adopted.	General Fund/ Stormwater Fund	Records of stormwater calcs and reports are kept in development files.  Public detention facilities maintenance tracked in maintenance records.  Engineering standards, including post construction stormwater quality were adopted at the end of 2019 (see previous report).
		Adopt the Millersburg Stormwater Master Plan and begin implementation of selected capital projects.	Begin implementation of selected capital projects recommended in the Stormwater Master Plan.	Incorporate stormwater projects into the City's Capital Improvements Program	Master Plan adopted in 2018. Plan and budget for projects beginning in FY 2019-2020.	Implementation of selected projects.	General Fund/ Stormwater Fund	Evaluation of selected projects is ongoing. Based on recent stormwater infrastructure performance during significant rainfall events, projects have been put on hold. This is primarily due to a better maintenance regime.
	B. Disposal & Recycling	Prevent hazardous waste & illegal discharges and encourage recycling.	Work with waste disposal provider (Republic Services) to provide information to the public on disposal regulations and recycling.  Support Hazardous Waste collection days. Advertise on City reader board and website.	Regular review of agreement with Republic Services to insure services continue to meet the needs of the community.	Periodic and on-going. Franchise agreement is reviewed every five years, evaluation of services annually.	Maintain record of any reported illegal discharges and enforcement actions. Report on Actions.	General Fund	One business (Ti Squared) self-reported a release of sodium hydroxide to Oregon DEQ and copied the City. Documents are included as Attachment 3.  No other reported hazardous waste or illegal discharges in 2022.
		Illicit Discharge, Detection and Elimination	Monitor ditches during dry weather.  Dry weather screening - inspect 20% of outfalls annually.  Provide reporting/complaint information on City website, including phone number and complaint form.	Track dry weather ditch monitoring and dry weather outfall screening.	Year 1: Establish dry weather screening program. Provide complaint reporting information on website.  Year 2: Begin dry weather monitoring/screening, continue ongoing.	Provide maintenance checklists documenting ditch monitoring.  Report on dry weather outfall screening.  Track responses to complaints.	General Fund/ Stormwater Fund	Tracking of dry weather ditch monitoring was removed from maintenance checklists. Instead, dry weather ditch monitoring was conducted by staff throughout the summer during routine inspections and maintenance staff are instructed to report on any unexpected water in ditches.  Dry weather outfall screening report attached (Attachment 4).
	C. Information Program for Clean Water Act and potential pollutants	Implement outreach and education activities for new local industries and the general public.	Post information or links to City website.  Educate new industries about protection of stormwater.	Develop a stormwater flyer for general public, post to website, and make available at City Hall.  Develop a stormwater flyer for industry and give to new industries at time of permits.	Develop stormwater flyers and post by 12/31/2019.	Annual communication of information to public and report to council.  Provide flyers with annual report.	General Fund/ Stormwater Fund	Stormwater flyers posted to City Website, made available at City Hall, and sent out with water bills once annually.  Flyers attached (Attachments 5 and 6).

	D. Funding	Provide funding for planning and implementation of needed programs to address pollution.	Seek funding sources, including considering creation of a stormwater utility and fee.	Prepare a working list of potential funding sources.	Ongoing; annual review	Achieve funding to implement planning and implementation of needed programs	General Fund/ Stormwater Fund	Funding was allocated in FY 2021-22 City budget from the City's general fund.  City may consider a stormwater utility and fee in the future if it becomes necessary.
	E. Intergovernmental Cooperation	Achieve economies and expanded informational base through cooperative associations.	Contact local and statewide organizations addressing environmental issues. Expand participation in Oregon ACWA.	Attend stormwater information sharing events. Participate with other agencies in local collaboration groups.	Ongoing; annual review	Report on events attended and participation in local collaboration groups.	General Fund/ Stormwater Fund	Ongoing participation in ACWA, attended ACWA stormwater summit in May 2022.
	F. City Council Support for water quality efforts	Ensure City Council is aware of TMDL requirements, TMDL Implementation Plan, and city-wide efforts to improve water quality.	City Council meeting overview and acknowledgement of TMDL Plan, Annual Report, and Five Year Review.	Revised Matrix presented to City Council; Annual City Council meeting minutes.	Ongoing; annual review	Annual meeting with City Council about TMDL responsibilities, progress, funding needs, etc.	General Fund/ Stormwater Fund	During budget meetings in the spring of 2022, stormwater fund functions and funding were reviewed.
	G. Staff Training and Good Housekeeping	Implement recommendations of Stormwater Master Plan for stormwater system maintenance.	Establish a stormwater system maintenance program per the recommendations of the Stormwater Master Plan.	Program and fund stormwater system maintenance activities: street sweeping, inlet inspection, system cleaning.	Year 1-2: Establish program.  Year 3-5: Implement maintenance program recommendations.	Report on maintenance activities.	General Fund/ Stormwater Fund	Monthly street sweeping contracted and conducted.  Maintain on-call contract for stormwater services.  Cleaned and TV'd stormwater system in Woods Estates (Evergreen and Deciduous Streets). Removed trash and debris from grated outlet at detention basin.
		Annual staff training.	One staff member participate in one training event per year and give presentation to other staff, as applicable.	Participation in one training event annually.	Training - annually, ongoing.	Documentation of training event attended and materials presented to other staff, as applicable.	General Fund/ Stormwater Fund	Attended ACWA stormwater summit in May 2022. Presentation of materials to other staff not applicable (Millersburg has no other staff this material is applicable to).
	H. Public Involvement	Provide opportunities for public involvement.	Include public outreach events in master plan processes and provide public comment periods for adoption of master plans.  Allow for public comments on stormwater related topics at council meetings.	Provide materials for public review ahead of meetings by posting on website.	Ongoing; annual review	Report on public outreach activities conducted and comments received.	General Fund	In every council meeting, there are two opportunities for public comment on all topics, including stormwater.

## Stormwater Complaint

**Complaint Number:** COM-22-36-SW

**Date Complaint Received:** 8/26/2022

**Name and Contact Info:** Confidential complaint received by DEQ and referred to City

**Location of Alleged Violation:** 3360 NE Lauren Avenue

**Complaint/Concern:**

Crooks Creek runs through this portion and in the section behind this particular home, the creek had been completely decimated of vegetation where nothing but exposed sediment with signs of erosion and algae could be seen. The homes to the East and West sides of the property, the stream section directly behind those homes, had a substantial amount of established vegetation. This section is clearly out of the ordinary and the water quality is likely being impacted."

**Staff Responding:** Janelle Booth

**Date Investigation Initiated:** 8/26/2022

**Outcome of Investigation:**

Property owner had eliminated vegetation by spraying during dry period to reduce maintenance. Educated property owner on requirement to keep creek banks vegetated.

**Corrective Actions Taken:** Due to time of year, mitigation/remedy will be to re-establish vegetation in the fall and monitor progress. Property owner followed up that they were moving and would not be present in the fall to complete this work. They said they had seeded the area to re-establish grass.

**Responsible Party:** Jim and Connie Lepin

**Status of Enforcement Procedures When Necessary:** N/A

**Date of Corrective Action:** September 2022



# WEEKLY MAINTENANCE CHECKLIST

Week of: \_\_\_\_\_

*Initial when complete*

## **Millersburg Park:**

- \_\_\_\_\_ Restroom floors – mop or hose down, squeegee to ensure dry when done
- \_\_\_\_\_ Shelter floor - Clean/hose down
- \_\_\_\_\_ Sweep/blow hard surfaces including walkways and parking lots
- \_\_\_\_\_ Mow grass, including ball fields (March/April – October)
- \_\_\_\_\_ Blow grass clippings off paths and sidewalks following each mowing
- \_\_\_\_\_ Clean BBQs (March/April – October)
- \_\_\_\_\_ Leaf removal (November - March)
- \_\_\_\_\_ Blow leaves/debris off paths and sidewalks/collect leaves
- \_\_\_\_\_ Remove fallen branches
- \_\_\_\_\_ Empty waste receptacles and place new liners
- \_\_\_\_\_ Restock dog bag stations
- \_\_\_\_\_ Check shelter for birds or insects, nests, droppings, webs, etc. Clean as needed
- \_\_\_\_\_ Rake volleyball court, remove debris or hazards (March/April – October)
- \_\_\_\_\_ Clean out BBQs as needed (March/April – October)

## **Acorn Park:**

- \_\_\_\_\_ Walk grounds, inspect for maintenance needs and safety issues (note any deficiencies below and on issues/deficiencies list)
- 
- \_\_\_\_\_ Pick up trash
  - \_\_\_\_\_ Check waste receptacles, empty and place new liners as needed
  - \_\_\_\_\_ Restock dog bag stations
  - \_\_\_\_\_ Remove fallen branches
  - \_\_\_\_\_ Mow grass (March/April – October)
  - \_\_\_\_\_ Blow grass clippings off paths and sidewalks following each mowing
  - \_\_\_\_\_ Leaf removal (November - March)
  - \_\_\_\_\_ Blow leaves/debris off hard surfaces and collect leaves

**City Hall Grounds:**

\_\_\_\_\_ Walk grounds, inspect for maintenance needs and safety issues (note any deficiencies below and on issues/deficiencies list)

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\_\_\_\_\_ Pick up trash

\_\_\_\_\_ Empty exterior waste receptacles and place new liners

\_\_\_\_\_ Mow every other week (March/April – October)

**Road Rights-of-Way:**

\_\_\_\_\_ Drive arterials and collectors (Old Salem Road, Conser Road, Millersburg Drive, Alexander, Woods Road, Morningstar Road) inspect for maintenance needs and safety issues (note any deficiencies below and on issues/deficiencies list)

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\_\_\_\_\_ During dry weather, is water present in ditches? If so, note location(s) \_\_\_\_\_

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\_\_\_\_\_ Pick up trash and/or note where additional trash removal is needed

\_\_\_\_\_ Vegetation removal – cut vegetation and spray one road each week May through October per right-of-way maintenance schedule

Road/ROW name: \_\_\_\_\_

**Stormwater Detention Basins:**

\_\_\_\_\_ Mow and pick up trash at one detention basin each week May through October per detention basin maintenance schedule

Detention basin name: \_\_\_\_\_

During dry weather, is water present in detention basin or exiting outfall? \_\_\_\_\_

**Fire Station Grounds:**

\_\_\_\_\_ Mow grass in field (once a month March/April – October)

**Equipment:**

\_\_\_\_\_ Check mower blades, change if needed (March/April – October)

\_\_\_\_\_ Checks on large equipment (mowers, tractor, Kubota), record in Equipment Maintenance Logs



State of Oregon Department of Environmental Quality

# Industrial Stormwater Permits

## Tier 1 Report Form

Instructions: Fill out this form if stormwater sampling results show an exceedance of any statewide benchmark(s) or sector specific benchmark(s) identified in the permit assignment letter. If you need additional space to answer the questions below, please attach additional sheet(s). The form must be filled out within 30 days of receiving analytical results. If no changes to the SWPCP are required or for benchmark exceedances, please retain this form onsite.

Date Form Prepared: 6/30/2022

Facility Name: Ti Squared Technologies File Number #: \_\_\_\_\_

County: Linn SIC Code(s): 3369

Prepared By: Jeremy Smith Phone Number: 541.367.2929

Email Address: jsmith@tisquaredtech.com

Form is being filled out in response to:

Statewide Benchmark Exceedance (list pollutants and benchmark concentrations):

Sector Specific Benchmark Exceedance (list pollutants and benchmark concentrations):

Date Sampling Occurred: 5/23/2022

Date Lab Results Received: N/A

Describe the result(s) of the investigation of the elevated pollutant levels:

Equipment failure released approximately 50 gallons of 25% sodium hydroxide (caustic) into stormwater drain. Elevated pH levels were detected in the on-site stormwater conveyance temporarily. Discharge stopped within 2 hours of discovery and the water recovery was completed within 7 hours. pH benchmark lone parameter affected. Weather conditions dry for prior week of failure. pH levels normal and as expected in downstream conveyance system.

Describe the corrective action(s) you will take to address the benchmark exceedence(s):

Replaced failed tubing and provided double wall deflection. Installed check dam / swale of diatomaceous earth encased in Rip-Rap rock to prevent erosion.

Date corrective action(s) completed or expected to be completed: 5/24/2022

Are SWPCP revisions necessary?

Yes

No

If "Yes", please describe revisions below:

As part of Tier 1 corrective action, did you complete industrial-specific checklists?  Yes  No

Please submit a revised SWPCP to DEQ or agent, including a schedule for implementing the control measures if required..



## DEQ Spill/Release Report

June 22, 2022

OERS # 2022-1175

NWFF Job # 4268-22

Ti Squared Technologies  
3900 Western Way NE  
Albany, or 97321

Release Location  
3900 Western Way NE  
Albany  
Linn County  
Oregon



## 1. General Information:

- a. Company/Individual Name: **Ti Squared Technologies -- Attn: Jeremy Smith**
- b. Address: **3900 Western Way NE, Albany, OR 97321**
- c. Company Contact Person: **Jeremy Smith**
- d. Phone Number(s): **360-523-8987**
- e. Report prepared by: **Ross McMakin -- NWFF Environmental**  
Phone **541-929-4884**
- f. Specific on-site location of the release (and address if different from above):  
**Retention pond located on SE section of Ti Squared property**

## 2. Release Information:

- a. Date/Time Release started: **Release initially observed 5/23/22 - 0800 hours**  
Date/Time stopped: **05/23/22 - 0954 hours**
- b. Release was reported to (specify Date/Time/Name of Person contacted where applicable):  
ODEQ  
OERS **5/23/22 - 1042 hours**  
NRC  
Other (describe):
- c. Person(s) reporting release: **Jeremy Smith - Ti Squared Technologies**
- d. Name, quantity and physical state (gas, liquid, solid or semi-solid) of material(s) released:  
**Approximately 50-gallons of 25% concentration sodium hydroxide**
- e. The release affected:  
Air **No**  
Ground Water **No**  
Surface Water **Yes**  
Soil **No**  
Sediment **No**
- f. Name and distance to nearest surface water body(s), even if unaffected (include locations of creeks, streams, rivers and ditches that discharge to surface water on maps):  
**Approximately 100' east to unnamed drainage ditch**  
  
Has the release reached the surface water identified above?: **Yes**  
Could the release potentially reach the surface water identified above?  
Explain: **Elevated pH levels were detected (up to 9.64) in the ditch temporarily. Discharge from outflow shut off at 0954 hours and pH normalized.**
- g. Depth to nearest aquifer/groundwater: **Unknown**  
Is nearest aquifer/groundwater potable (drinkable)? **Unknown**  
Has the release reached the nearest aquifer/groundwater? **No**  
Explain: **The release was contained to surface waters and recovered within 7 hours.**
- h. Release or potential release to the air occurred? **No**  
Explain: **Cleanup has been completed.**
- i. Was there a threat to public safety? **No**
- j. Is there potential for future releases? **No**  
Explain: **Cleanup has been completed. The part that failed, causing the release has been identified and repaired.**

- k. Describe other effects/impacts from release (emergency evacuation, fish kills, etc.):  
None
- l. Describe how the release occurred. Include details such as the release source, cause, contributing weather factors, activities occurring prior to or during the release, dates and times of various activities, first responders involved in containment activities, etc.:

### 3. Site Information

- a. Adjacent land uses include (check all that apply and depict on site maps):
- |                  |   |                  |   |
|------------------|---|------------------|---|
| Residential      | X | Heavy Industrial |   |
| Commercial       | X | Agricultural     | X |
| Light Industrial | X | Other            |   |
- b. What is the population density surrounding the site: 300/m<sup>2</sup>
- c. Is the release area secured by fencing or other means? Cleanup complete
- d. Soil types (check all that apply):
- |         |                    |
|---------|--------------------|
| Alluvia | Silt               |
| Bedrock | Silty Loam         |
| Clay    | Artificial Surface |
| Sandy   |                    |
- e. Describe site topography: Flat

### 4. Cleanup Information:

- a. Was site cleanup performed? Yes  
If No, explain:
- b. Who performed the site cleanup?
- |                     |                                |
|---------------------|--------------------------------|
| Company Name:       | NWFF Environmental             |
| Address:            | PO Box 188 Philomath, OR 97370 |
| Cleanup Supervisor: | Ross McMakin                   |
| Phone Number(s):    | 541-929-4884                   |
- c. Has all contamination been removed from the site? Yes  
If No, explain:
- d. Estimated volume of contaminated soil removed: None
- e. Estimated volume of contaminated soil left in place: None
- f. Was a hazardous waste determination made for cleanup materials? N/A
- g. Based on the determination, are the cleanup materials hazardous wastes? N/A  
If Yes, list all waste codes:
- h. Was contaminated soil or water disposed of at an off-site location?
- |                   |     |
|-------------------|-----|
| Facility Name:    | N/A |
| Address:          |     |
| Facility Contact: |     |
| Phone Number(s):  |     |

- i. Is contaminated soil or water being stored and/or treated on-site? **Yes**  
 If yes, please describe the material(s), storage and/or treatment area, and methods utilized (attach additional sheets if necessary):  
**Impacted water is being treated on site under City of Albany Permit #3369-02 - Industrial Wastewater Discharge Permit City of Albany.**
- j. Describe cleanup activities including what actions were taken, dates and times actions were initiated and completed, volumes of contaminated materials that were removed, etc. (attach additional sheets or contractor reports if necessary or more convenient):  
**See attached.**

**5. Sampling Information:**

- a. Were samples of contaminated soil collected? **N/A**
- b. Were samples of contaminated water collected? **N/A**
- c. Were samples collected to show that all contamination had been removed? **N/A**
- d. Describe sampling activities, results and discuss rationale for sampling methods:  
**N/A**

**6. Additional Information**

- a. Provide a description or plan outlining the list of actions to be taken to prevent future releases from occurring.  
**The part that failed, causing the release has been identified and repaired.**

**7. Spill Report Checklist**

**\* to be included with final report**

I certify that based on information and belief formed after reasonable inquiry, the statements and information contained in this submittal are true, accurate and complete.	
Signature: <u>          <i>Ross McMakin</i>          </u>	Date: <u>          6/22/22          </u>

5/23/2022 – Sodium Hydroxide 25% solution tubing failure

08:00 – Aware of tubing failure

08:30 – Chemical absorbant booms deployed

08:35 – Stormwater pond pH = 12.87 (outflow 1)

08:45 – Discharge opening blocked by chemical absorbents

09:32 – Downstream sample pH = 9.64 (discharge 1)

09:54 – Discharge stopped completely from Outflow 1

10:04 – Started pumping stormwater pond water into onsite storage for neutralization and discharge to POTW/sewer connection covered by permit # 3369-02 – Industrial Wastewater Discharge Permit City of Albany.

10:35 - Contacted NWFF

10:42 – Notified DEQ OERS – OERS# 2022-1175

10:50 – NWFF on-site

12:10 – Outflow 3 pH = 6.71

12:27 – Outflow 1 pH = 9.90

12:33 – OSP on-site (Michael Walberg – Trooper Fish and Wildlife Division)

14:00 – Earthen berm (Solid-a-Sorb® Diatomaceous Earth Absorbent) installed segregating outflow 1 from stormwater detention pond and neutralizing potential outflow

14:24 – Outflow 3 pH = 6.72

14:25 – Outflow 2 pH = 7.37

14:26 – Outflow 1 pH = 8.65

14:28 – Discharge 1 pH = 7.23

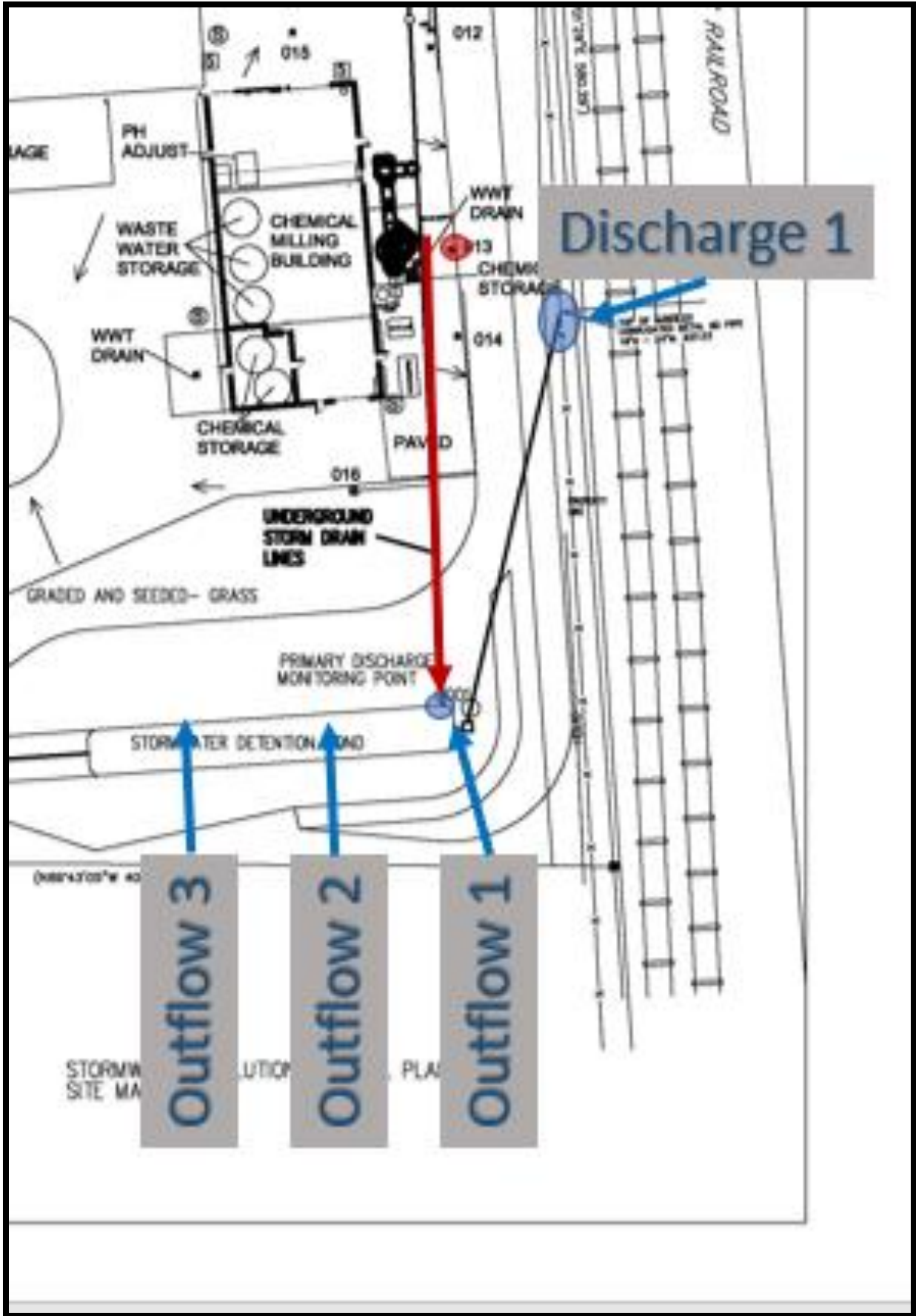
14:45 – Opened Discharge

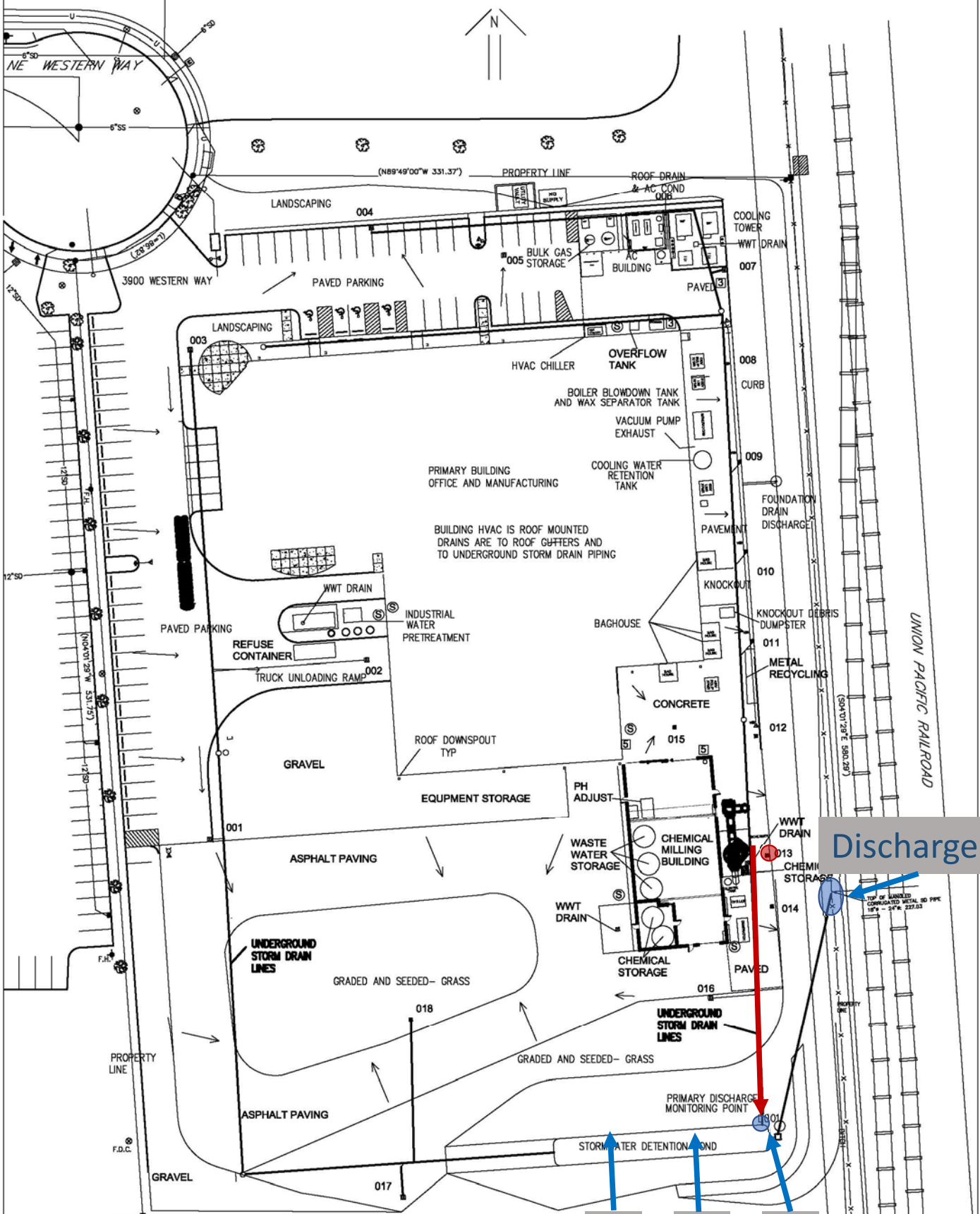
15:15 – NWFF off-site

16:00 – Contacted Kendra Girard (DEQ)

5/24/2022 NWFF – Installed 45 square foot rock lining in area adjacent to outflow 1 for water filtration and to encase the Diatomaceous Earth Berm.

5/31/2022 Ti Squared - Sampled Stormwater Outflow following the next stormwater event if available.





Discharge 1

Outflow 3

Outflow 2

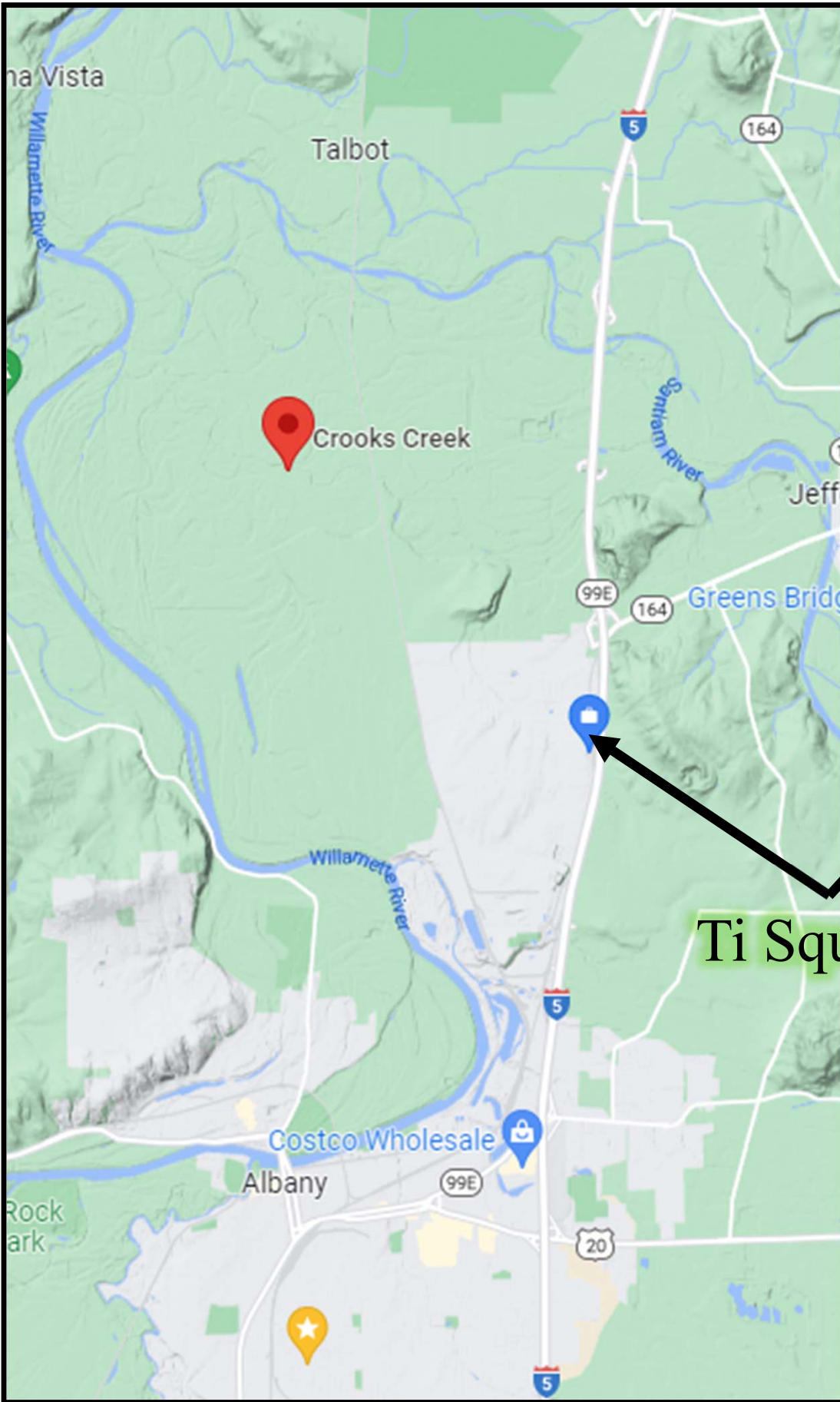
Outflow 1

- KEY
- ⊙ SPILL KIT
  - ⊠ WASTE WATER TOTE
  - ⊡ RECYCLE METAL STORAGE
  - ▨ STORM DRAIN
  - ⊞ CONTAINMENT SHED
  - FENCE

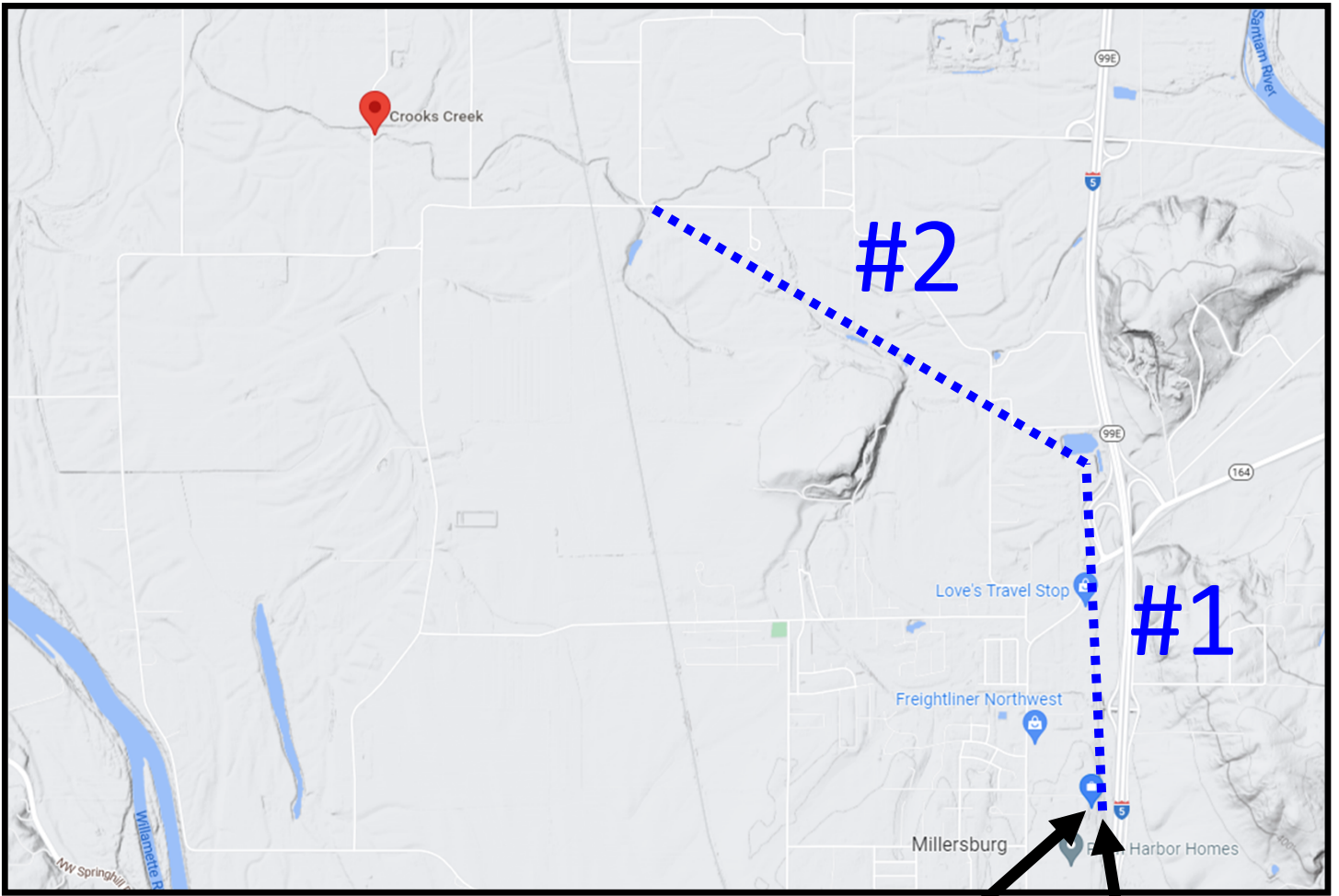
TI SQUARED TECHNOLOGIES  
 3900 WESTERN WAY  
 LINN COUNTY, MILLERSBURG, OR

STORMWATER DETENTION POND  
 SOLUTION PLAN

TYPE OF UNPAVED CORRODATED METAL 60 WPK  
 18" x 24" x 227.03



Ti Squared



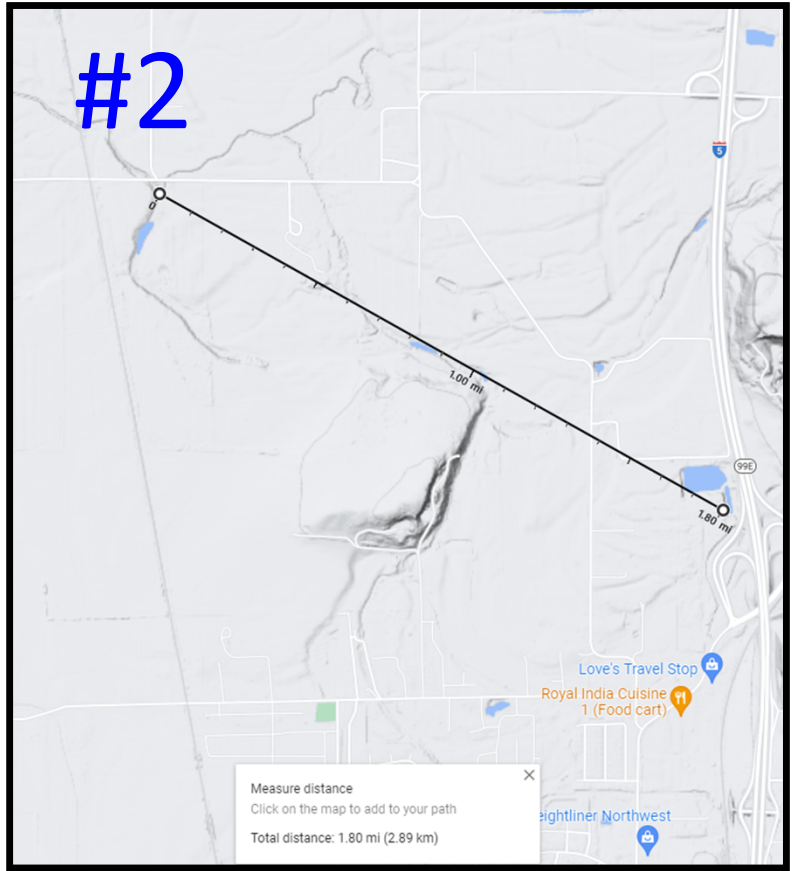
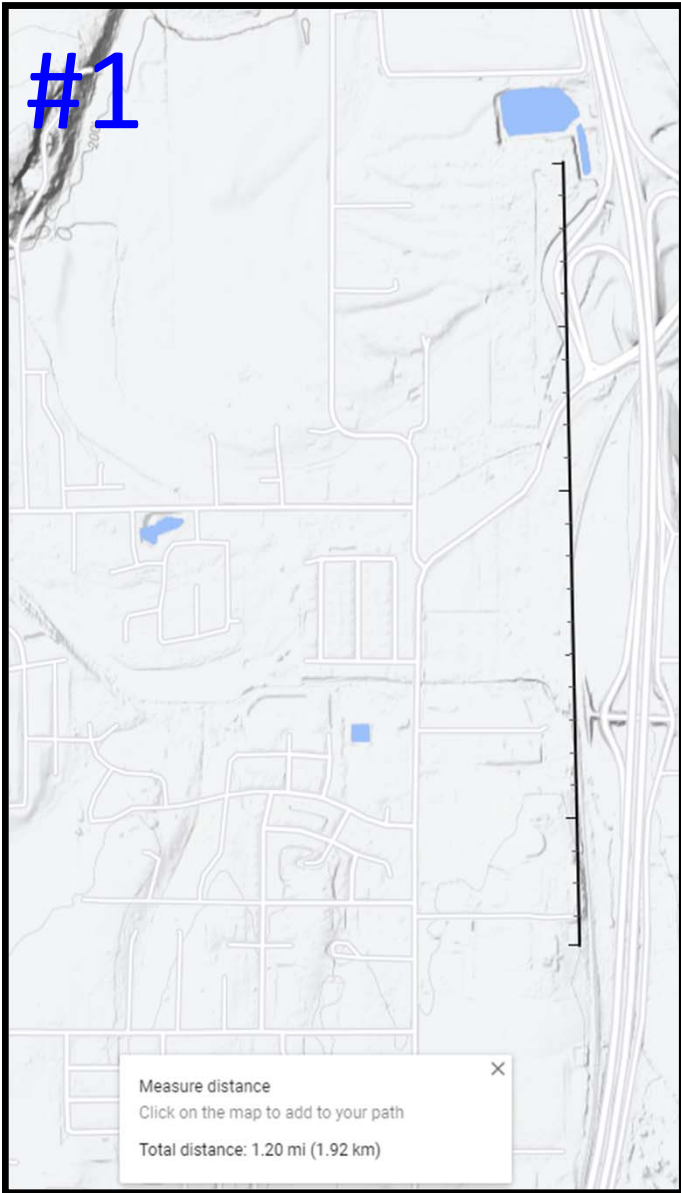
Ti Squared

Un named ditch

#1 – 1.20 miles

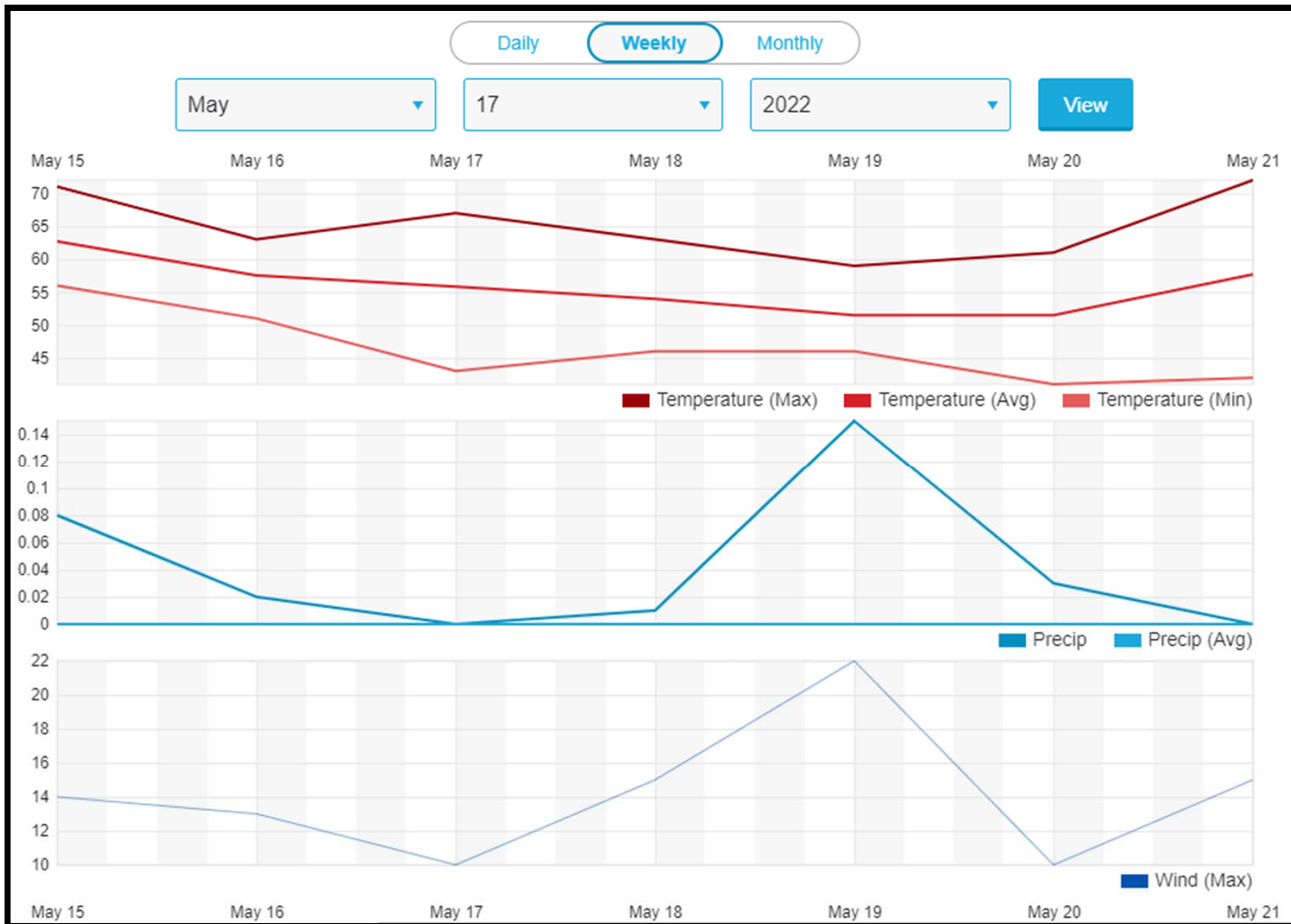
#2 – 1.80 miles



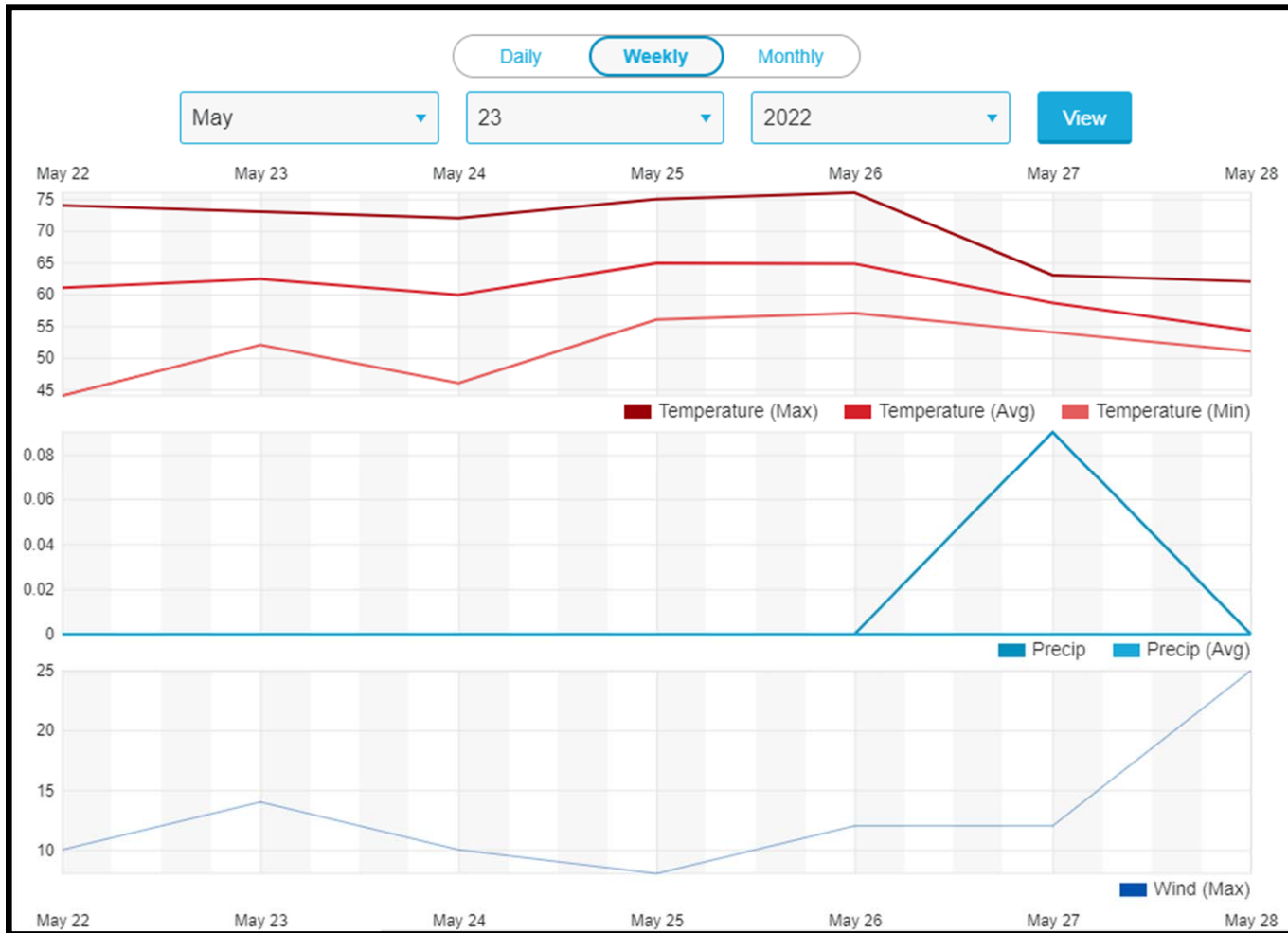


Spray pattern on-site.





<https://www.wunderground.com/history/daily/us/or/albany>



<https://www.wunderground.com/history/daily/us/or/albany>

Last Updated 9/19/2022

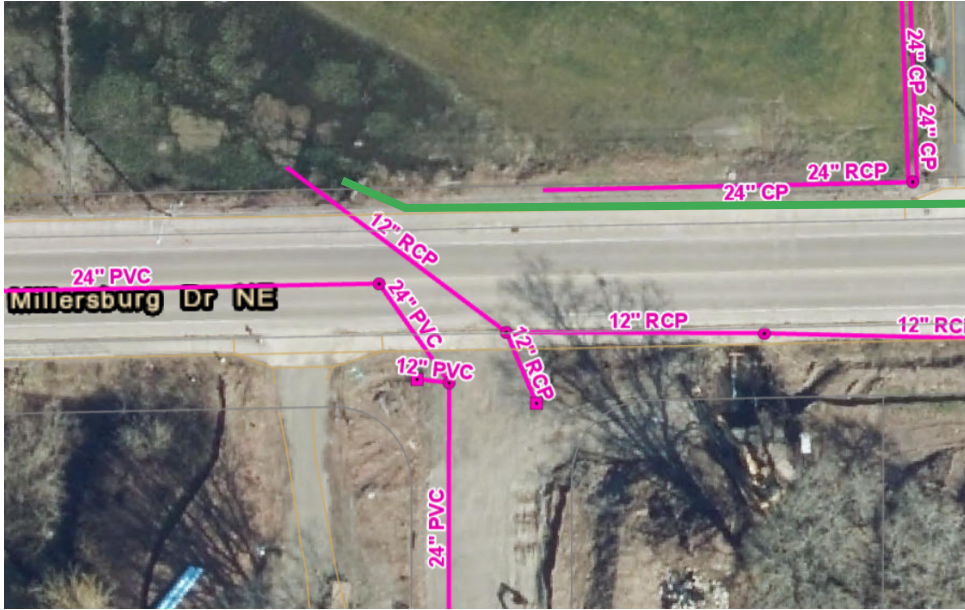
Total number of MS4 Outfalls: 9  
 Number MS4 inspected in 2022: 5  
 % MS4 inspected in 2022: 56%

Stormwater Outfall Check								
Previous Inspection Date	Inspection Date	Inspector Initials	Outfall ID	Description	MS4 Outfall	Receiving water body	Status	Field Notes:
	9/20/2022	JB	00-05224	Box culvert pass through of offsite drainage along Millersburg Drive	Y	Crooks Creek Trib	Dry	Dry at inlet and outlet
9/1/2021			03-00530	Becker Ridge East Detention Basin Outfall	Y	Crooks Creek		
9/17/2021	9/20/2022	JB	05-00400	Hoffman Estates Detention Basin Outfall	Y	Crooks Creek Trib	Dry	Dry at detention basin.
8/31/2021			07-00210	Morningstar Subdivision Detention Basin outfall	Y	Crooks Creek		
			10-01280	Sweetwater Detention Basin (wet pond) Outfall	Y	Crooks Creek		
8/31/2021	9/19/2022	JB	16-00130	Becker Ridge North and West Detention Basins Outfall	Y	Crooks Creek	Dry	Dry at upstream manhole. Outfall pipe end buried in brush.
8/31/2021	9/19/2022	JB	16-00140	Millersburg Drive, north side discharge to Crooks Creek	Y	Crooks Creek	Dry	Dry at Contech Stormwater vault.
			36-00810	Millersburg Drive, street drainage outfall adjacent to box culvert outlet	Y	Crooks Creek Trib		
8/31/2021	9/19/2022	JB	36-00000	West Valley Estates Detention Basin Outfall - located on south side of Millersburg Drive at east end of bridge over Crooks Creek	Y	Crooks Creek	Dry	No flow at flap gate. Flap gate to be replaced this fall or next spring.

# 00-05224

## City of Millersburg

### Aerial View



### Access Notes

Slightly northwest of intersection between  
Millersburg Dr. NE and NE Saunter St.

Property Owner - Allen and Linda Westbrook

### List of Inspections

9/20/2022 - Dry at inlet and outlet

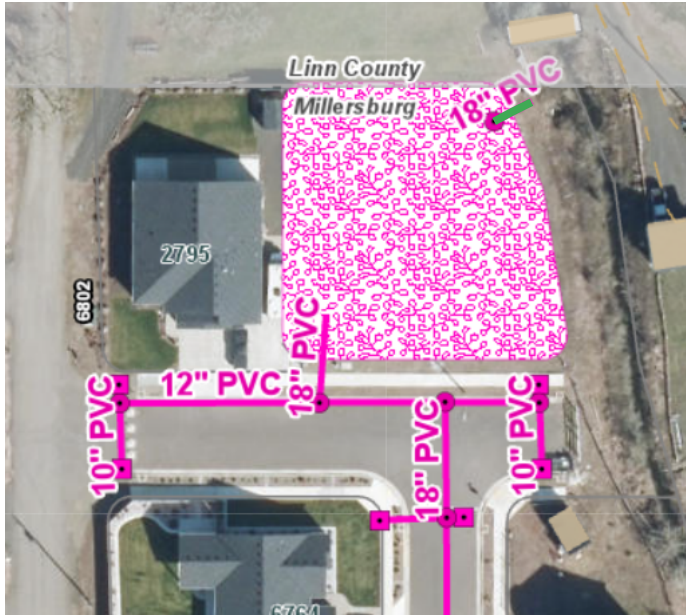
### Outlet Photograph



# 05-00400

## City of Millersburg

### Aerial View



### Access Notes

Slightly northeast of detention basin just north of the intersection between NE Shayla Dr. and NE Noel Ln.

Property Owner - Robert Hoffman

### List of Inspections

09/17/2021 - Dry

09/20/2022 - Dry at detention basin

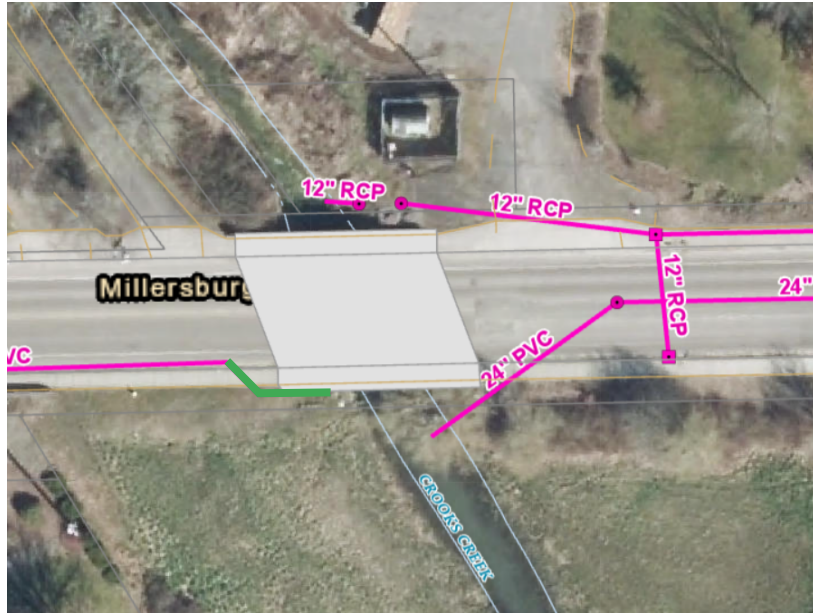
### Outlet Photograph



# 16-00130

## City of Millersburg

### Aerial View



### Access Notes

Slightly southwest of bridge on Millersburg Dr.

Property Owner - David and Valerie Phelps

### List of Inspections

08/31/2021 - Dry

09/19/2022 - Dry at upstream manhole. Outfall pipe end buried in brush.

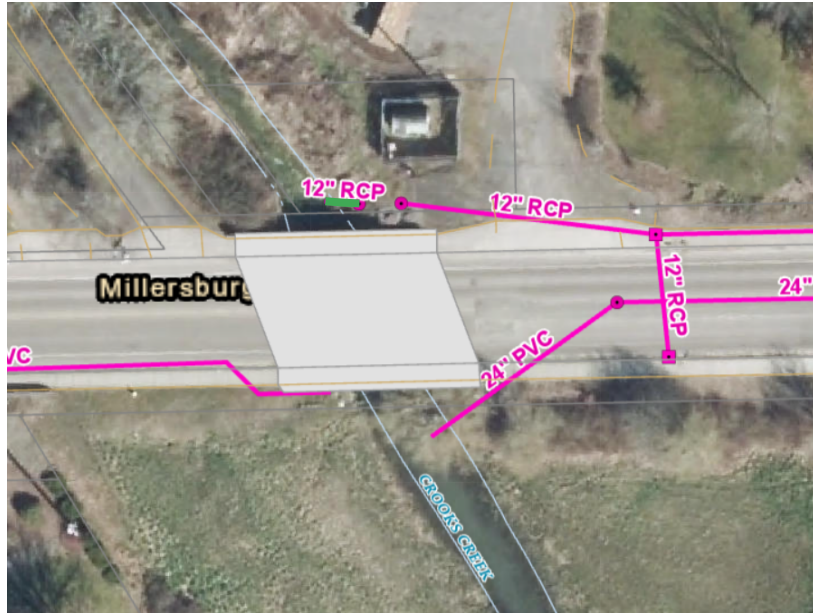
### Outlet Photograph



# 16-00140

## City of Millersburg

### Aerial View



### Access Notes

Slightly north of bridge on Millersburg Dr.

Property Owner - City of Millersburg

### List of Inspections

08/31/2021 - Dry

09/19/2022 - Dry at Contech stormwater vault

### Outlet Photograph

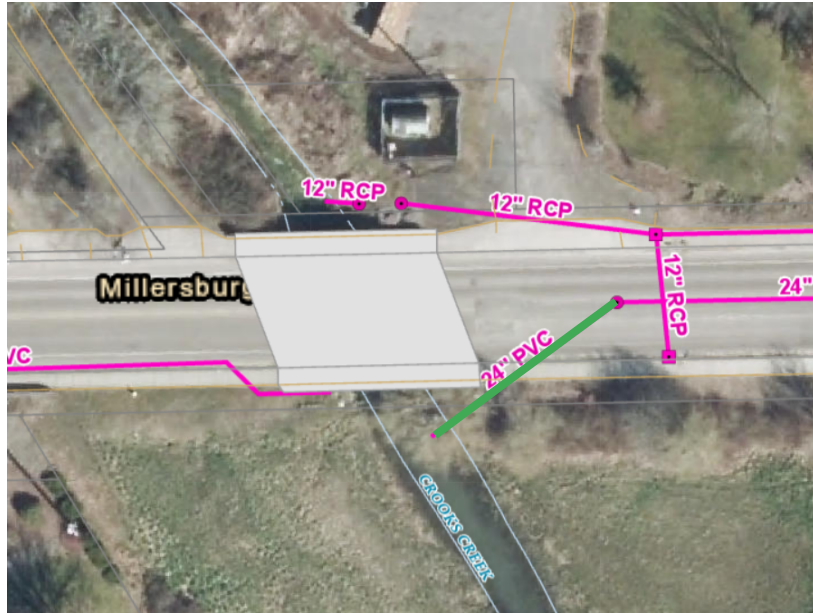




# 36-00000

## City of Millersburg

### Aerial View



### Access Notes

Slightly southeast of bridge on Millersburg Dr.

Property Owner - David and Valerie Phelps

### List of Inspections

08/31/2021 - Dry

09/19/2022 - No flow at outlet flap gate. Flap gate to be replaced this fall or next spring

### Outlet Photograph



# What is stormwater and how does it impact me?

Stormwater is generated from water that falls from the sky, including rain, hail, and snow.

In a natural, undeveloped landscape, most stormwater soaks into the ground to be stored or filtered before it reaches natural waterways. In a city, most stormwater falls onto impervious surfaces (surfaces that do not absorb water) such as roads, driveways, sidewalks, rooftops, or parking lots, and it is not soaked up by the ground. This water flows across these surfaces as runoff.

Most stormwater flows from private property to a stormwater inlet in the street where it enters a pipe and is carried to the nearest waterway. The network of stormwater pipes is completely separate from the sanitary sewer system. Unlike the sanitary sewer system, which conveys wastewater to a treatment facility, the stormwater system conveys *untreated* runoff directly to our waterways.

## **Stormwater Quality – Keep it Clean!**

As runoff flows across the ground, it picks up pollutants that you can see (debris, dirt, and grease) and others that can't be seen (fertilizers and detergents). There is a lot you can do to help keep our waterways clean.

For example:

- Use a commercial car wash to minimize the amount of dirty, soapy water flowing into the stormwater system.
- Check your vehicles and equipment for leaks and spills.
- Clean up spilled fluids with an absorbent material and don't rinse the spills into a nearby storm drain.
- Recycle used oil and other fluids; do not dump these chemicals down the storm drain.
- Use pesticides and fertilizers sparingly.
- Sweep up yard debris instead of hosing down areas.
- Don't overwater your lawn.



Used with permission of City of Wilmington, NC Stormwater Services: Heal Our Waterways

Whatever you keep out of the storm drain, you keep out of our streams. More ideas can be found at [https://www3.epa.gov/npdes/pubs/solution\\_to\\_pollution.pdf](https://www3.epa.gov/npdes/pubs/solution_to_pollution.pdf)

### ***Runoff Volume – Reducing Impacts on Yourself and Others***

Stormwater runoff can cause problems for you or your neighbors if not appropriately handled. Altering drainage patterns or increasing the impervious surface area on your property can create stormwater problems, including localized flooding. Increased runoff can also cause erosion and sedimentation (when solids in water settle) by sweeping away and displacing soil. Reducing or minimizing the amount of paved area and increasing the amount of vegetated area in your yard can help increase infiltration and reduce runoff.





*Partnering with business and industry to maintain quality small-town atmosphere.*

## What Is Stormwater Runoff and What Are Its Impacts?

Stormwater runoff is water from rain or snowmelt that does not immediately infiltrate into the ground and flows over or through natural or man-made storage or conveyance systems. When undeveloped areas are converted to land uses with impervious surfaces such as buildings, parking lots, and roads, the natural hydrology of the land is altered and can result in increased surface runoff rates, volumes, and pollutant loads.

Stormwater runoff picks up industrial pollutants and typically discharges them directly into nearby waterbodies or indirectly via storm sewer systems. Runoff from areas where industrial activities occur can contain toxic pollutants (e.g., heavy metals and organic chemicals) and other pollutants such as trash, debris, and oil and grease, when facility practices allow exposure of industrial materials to stormwater. This increased flow and pollutant load can impair waterbodies, degrade biological habitats, pollute drinking water sources, and cause flooding and hydrologic changes to the receiving water, such as channel erosion.

Industrial facilities typically perform a portion of their activities in outdoor areas exposed to the elements. This may include activities such as material storage and handling, vehicle fueling and maintenance, and shipping and receiving, all of which can result in pollutants being exposed to precipitation and capable of being carried off in stormwater runoff. Also, facilities may have performed industrial activities outdoors in the past and materials from those activities still remain exposed to precipitation. In addition, accidental spills and leaks, improper waste disposal, and illicit connections to storm sewers may also lead to exposure of pollutants to stormwater.<sup>1</sup>

### **Six Types of Activities that have Potential to be Pollutants in Stormwater**

#### *1. Loading and Unloading Operations*

Loading and unloading operations can include pumping of liquids or gases from tankers to

storage facilities, pneumatic transfer of dry chemicals, transfer by mechanical conveyor systems, or transfer of bags, boxes, drums or other containers by forklift or other material handling equipment. Material spills or losses in these areas can accumulate and be washed away during a storm.

#### *2. Outdoor Storage*

Outdoor storage activities include storage of fuels, raw materials, by-products, intermediate products, final products, and process residuals. Materials may be stored in containers, on platforms or pads, in bins, boxes or silos, or as piles. Storage areas that are exposed to rainfall and/or runoff can contribute pollutants to stormwater when solid materials wash off or materials dissolve into solution.

#### *3. Outdoor Process Activities*

Although many manufacturing activities are performed indoors, some activities, such as timber processing, rock crushing, and concrete mixing, occur outdoors. Outdoor processing activities can result in liquid spillage and losses of material solids, which makes associated pollutants available for discharge in runoff.

#### *4. Dust or Particulate Generating Processes*

Dust or particulate generating processes include industrial activities with stack emissions or process dusts that settle on surfaces. Some industries, such as mines, cement manufacturing, and refractories, also generate significant levels of dust that can be mobilized in stormwater runoff.

#### *5. Illicit Connections and Non-Stormwater Discharges*

Illicit connections of process wastes or other pollutants to stormwater collection systems, instead of to sanitary sewers, can be a significant source of stormwater pollution. Non-stormwater discharges include any discharge from the facility that is not generated by rainfall runoff (for example, wash water from industrial processes). With few exceptions, these non-stormwater discharges are prohibited.

<sup>1</sup>From "Developing Your Stormwater Pollution Prevention Plan: A Guide for Industrial Operators," by Environmental Protection Agency, 2009, EPA 833-B-09-002

<sup>2</sup>From "Best Management Practices For Industrial Storm Water Pollution Control," by Sacramento Stormwater Management Program.

## 6. Waste Management

Waste management practices include everything from landfills to waste piles to trash containment. All industrial facilities conduct some type of waste management at their site, much of it outdoors, which must be controlled to prevent pollutant discharges in stormwater.<sup>1</sup>

### Stormwater Pollution Prevention

#### 1. Prevent water from contacting working areas

Shipping areas, outdoor equipment, material storage areas, vehicle maintenance spaces, and working areas of all sorts are subject to contamination with raw materials, process liquids, grease, oily wastes, vehicle fluids, heavy metals, and miscellaneous potential pollutants. If you prevent stormwater, wash water, or water from other sources from contacting areas exposed to pollutants, you will be less likely to discharge pollutants into your storm drains.

- Keep rainfall from directly contacting working areas, by installing roofs, placing structures, or moving industrial operations indoors.
- Prevent run-on stormwater from contacting industrial areas, indoors or out by using properly designed berms or grading. Run-on is water that flows across the industrial area. It picks up pollutants as it flows.
- Avoid practices where you use water that later enters the storm drains. For instance, washing in outdoor areas. Most of these practices, including many that were acceptable in the past, are now considered to be "illegal dumping" of non-storm water to the storm drain.

#### 2. Keep pollutants off surfaces that come into contact with water.

Evaluate your site carefully to identify all areas that are contacted by storm water, wash water, cooling water that is otherwise unpolluted, or other water that is allowed to be discharged to the storm drain. Then take special care to keep pollutants off these surfaces. That means controlling minor leaks and spills that you might otherwise overlook, and taking a close look at your operating routines and equipment to determine whether any substances are exposed to storm water that do not need to be.

#### 3. Manage stormwater before it is discharged to the storm drain.

If you can't avoid adding pollutants to stormwater, you may need to remove pollutants to meet water quality requirements before discharge. Stormwater control regulations consider treatment as a last resort and emphasize source control options because they are usually less costly and more effective in the long run.<sup>2</sup>

### Stormwater Millersburg Permit Requirements

Federal and state storm water regulations now require many kinds of industrial facilities to take steps to prevent stormwater pollution.<sup>2</sup> Below is a list of permits that may be required in the City of Millersburg.

- City of Millersburg Grading permit
- City of Millersburg Post Construction Stormwater Quality permit
- City of Millersburg Erosion Control permit
- NPDES 1200-C permit



<sup>1</sup>From "Developing Your Stormwater Pollution Prevention Plan: A Guide for Industrial Operators," by Environmental Protection Agency, 2009, EPA 833-B-09-002

<sup>2</sup>From "Best Management Practices For Industrial Storm Water Pollution Control," by Sacramento Stormwater Management Program.