

RIVERLEA STORM WATER MANAGEMENT PLAN

2014 - 2018

NPDES Permit No: OHQ000003

Authorization for small Municipal Separate Storm Sewer Systems to discharge storm water under
the National Pollutant Discharge Elimination System

INTRODUCTION

The Village of Riverlea Storm Water Management Plan has been developed to comply with state and federal water regulations in a manner beneficial to drainage management, natural resources, the overall environment and residents of the village. Its purpose is to protect and improve water quality, stream corridors, the Scenic Olentangy Watershed and public health in accordance with federal and state storm water regulations.

Riverlea has three outfalls that discharge directly to the Olentangy River. In order to discharge storm water, Riverlea is required by the MS4 Storm Water permit administered by the Ohio EPA to develop, implement and support a Storm Water Management Plan (SWMP) to the maximum extent practicable to protect water quality. There are six minimum control measures that the SWMP must address:

- 1) Public Education and Outreach
- 2) Public Participation / Involvement
- 3) Illicit Discharge Detection and Elimination (IDDE)
- 4) Construction Site Runoff Control
- 5) Post-Construction Runoff Control
- 6) Pollution Prevention / Good Housekeeping for Operations

In accordance with its permit, The Riverlea SWMP addresses Best Management Practices (BMP) for each of these six minimum control measures and documents lines of communication, responsibility, legal authority and rationale.

Successful implementation of the plan will require:

- 1) Formal Adoption of the Plan by Village Council
- 2) Formal Adoption of the Plan by the Riverlea Planning Commission
- 3) Village Committees Awareness and Support
- 4) Resident Participation, Awareness and Support

This Riverlea SWMP addresses the Storm Water Audit Finding of Riverlea issued September 26, 2014 by Mr. Harry Kallipolitis, Storm Water Coordinator, Division of Surface Water, Central District Office. The Village is appreciative of his time and attention and guidance regarding the structure of this document and the overall village-wide process.

BACKGROUND

The Village of Riverlea convened a meeting in March, 2015 to explain the Storm Water Audit Findings of September 26, 2014 to all interested residents. This meeting marked the introduction of the required Storm Water Management Plan and the intended corrective action regarding inclusive education, outreach and resident participation in devising the plan in accordance with federal and state requirements.

Plans are required to be submitted to the Ohio EPA once every five years.

The Riverlea Street Commissioner has responsibility for the plan, and all communication may be addressed to William P (Bill) Charles, 5825 Dover Court, Worthington, Ohio 43085.

sc.riverlea@columbus.rr.com

RIVERLEA DESCRIPTION

Riverlea is an independent, incorporated village in Franklin County, Ohio. It is surrounded on three sides (North, South and East) by the City of Worthington. Its West border is the Olentangy River, a designated Scenic Waterway. Columbus is located on the opposite side of the river.

There are 237 homes within Riverlea, and the Village is entirely residential, without commercial enterprise. Its total area is 0.2 square miles. Basic village infrastructure of streets, storm sewers, sanitary sewers and water distribution system was constructed in 1925.

Riverlea was originally platted as the "Van DeBoe-Hager Addition" in 1924. Development was significantly slowed by the Great Depression, but picked up pace in the late 1930s. It was incorporated in 1939, and was substantially built out in the late 40s, 50s, and 60s. From the mid 90s through 2014, a total of seven new single family homes were constructed. Today only a handful of "buildable" lots remain, all owned by the adjacent residents. Land use is zoned single-family homes, except for low density apartment buildings and condos that line the High Street border with Worthington.

Riverlea has its own government consisting of an elected Mayor, a six-member elected Village Council and an elected Village Clerk. The mayor appoints a Planning Commissioner and the five-member Planning Commission, a Street Commissioner and the Village Solicitor.

Riverlea is within the Worthington School District. It currently contracts with the City of Worthington for Police and Fire protection. The Village outsources contracts for the shared village services of trash pickup, snow removal, mowing of the Village Circle Park, and Counsel.

STORM WATER SYSTEM

Burgess & Niple, Riverlea's general services consultant, in 2013 conducted an internal investigation of the system. A detailed report, "Storm Sewer and Manhole Internal Inspection, Riverlea, Ohio" was issued in March of 2014. It documents the investigation including:

- 1) Detailed mapping
- 2) Inspection of structures
- 3) Cleaning and televising of pipes
- 4) Condition assessment
- 5) Recommendations for repair
- 6) The work also includes dry weather screening of storm sewer outfalls within the system for identification of possible illicit discharges in accordance with the General Permit for Municipal Small Storm Sewer Systems (MS4)

The project included all existing storm sewers and structures (pipe, manholes, inlets, catch basins) within the Corporation limits of the Village of Riverlea. The collection system is comprised of approximately 8,815 linear feet of vitrified clay and reinforced concrete ranging in size from 8" to 30" and 58 storm structures, a majority of which are located in residential streets.

The Village has three storm sewer outfalls. These outfall pipes discharge to the Olentangy River and include:

- 1) 30" pipe outlet located west of the intersection of Riverglen Dr. and Olentangy Blvd.
- 2) 30" pipe outlet located west of the intersection of Southington Ave. and Olentangy Blvd.
- 3) 24" pipe outlet located along the south corporation line west of Olentangy Blvd.

ORGANIZATIONAL TABLE

The Ohio Environmental Protection Agency (OEPA) requires a table of organization that identifies the primary point of contact for each of the six minimum measures that must be addressed and person responsible for implementation. With overall responsibility for the plan, the Riverlea Street Commissioner is the primary point of contact and is responsible for Best Management Practices (BMPs). The Street Commissioner is appointed by the Mayor, approved by Council and serves under the Mayor's direction. For success of this plan, Riverlea Council, Planning Commission and communications must align.

ALL PARTICIPANTS SERVE THE VILLAGE IN ADDITION TO WORKING THEIR FULL TIME JOBS

<p>PRIMARY POINT OF CONTACT Current Riverlea Street Commissioner Bill Charles 614-403-3733 sc.riverlea@columbus.rr.com</p>
<p>CURRENT RIVERLEA MAYOR Kirk McHugh 614-547-3037 kmchugh@riverleaohio.com</p>
<p>Measure 1) Public Education and Outreach Measure 2) Public Participation and Involvement Measure 3) Illicit Discharge Detection and Elimination (IDDE) Measure 4) Construction site runoff Measure 5) Post-Construction Runoff Control Measure 6) Pollution Prevention / Good Housekeeping for Operations Primary Point of Contact and Person Responsible: Street Commissioner</p> <p><u>Participation from Riverlea Council:</u> Scott Gordon, sgordon@riverleaohio.com Eric MacGilvray, emacgilvray@riverleaohio.com Jenny D. Jones, jennyj@riverleaohio.com Mike Blanchard, mblanchard@riverleaohio.com Josh Schoenberger, jschoenberger@riverleaohio.com Jacalyn Slemmer, jslemmer@riverleaohio.com</p> <p><u>Participation from the Planning Commissioner:</u> Carolee Noonan, cnoonan@riverleaohio.com</p> <p><u>Participation from official Village Communicators:</u> Jody Jones, Web Site Manager, jjones@riverleaohio.com</p>
<p>Riverlea Website: riverleaohio.com</p>
<p>Friends of Riverlea Facebook Page: Friends of Riverlea</p>

STORM WATER MANAGEMENT PLAN

This plan is organized by the required six Minimum Control Measures (MCMs). It will be reviewed and used as a tool to complete the required annual reporting.

1. PUBLICATION AND OUTREACH

A) Program Requirements

- Develop a plan to inform and involve individuals and households about steps they can take to reduce storm water pollution including measurable goals, target audiences, target pollutants, outreach strategies and input into the development of the SWMP.
- Develop five different storm water themes or messages to be conveyed to target audiences during the permit term of five years. The development community must be the target for one theme or message.
- Develop rationale for target audiences and pollutants that will make the greatest difference for improving storm water quality.
- Identify approaches and mechanisms (e.g., printed brochures, newspapers, media, workshops, etc.) to reach target audiences, and how many people will be reached over the permit term. At least 50% of the population needs to be reached.
- Evaluate the success of this minimum measure, including how you selected the measurable goals for each of the BMPs.

B) Riverlea

• Decision Process, Targets and Rationale

Riverlea will use a comprehensive approach to maximize effectiveness of education and outreach. The small size of the village and closeness of its residents will allow contact with most, if not all, households over the permit period. The program will target residents, and in some cases, developers and contractors. Target pollutants that the five required five themes or messages will address include lawn and garden chemicals, lawn clippings and leaves, overflow of trash, littering, and intentional or accidental spills into the sewers. Consideration has been given to actions that residents will be interested in and capable of, existing community resources, frequency of construction, conditions of curbs, sewers, gutters and manholes, and recreational use of the river.

• Communication Vehicles

Riverlea communicates with its small number of residents with a managed and regularly updated website with pages devoted to contact information for Village officials, Council meeting minutes, news alerts, the Street and Planning Commissioners, newsletters and other information. Periodically, a printed newsletter is published and distributed to 100% of households. Monthly council meetings are open to and attended by residents.

- Themes
 - 1) Storm Water Basics (SW101)**
 - a) Know your system - Basics, System Maps and 2014 Survey Report
 - b) Where does it go
 - c) How does it get polluted
 - d) What are adverse effects on the environment
 - 2) Only Rain in the Drain (ORD)**
 - a) Keeping gutters clean
 - b) No dumping
 - c) Village street sweeping
 - d) Minimize lawn and garden fertilizers, chemicals, pesticides and salt
 - 3) Runoff Reduction / Residential Conservation Measures (RR/RCM)**
 - a) Rain barrels
 - b) Rain gardens
 - c) Trees and shrubs
 - d) Permeable hardscaping and paving for driveways
 - 4) Storm Water Management Toolkit for Builders and Remodelers (SMT/BR)**
 - a) FCSWC sources included in Audit Report
 - b) Develop BMPs for erosion control
 - c) Develop BMPs for sediment control
 - d) Develop BMPs for construction activities
 - 5) It Takes a Village (ITV)**
 - a) Shared property - Circle Park, ravine, trails, entrance markers
 - b) Planting programs
 - c) Clean-up and keep-up
 - d) Help neighbors
- Best Management Practice
Distribute educational information through the Riverlea website, Village Newsletter, Council Meetings and the Planning Commission.
- Measurable Goal
Number of households reached.

2. PUBLIC PARTICIPATION AND INVOLVEMENT

A) Program Requirements

- Describe public involvement opportunities in developing and implementing the plan.
- Describe target audiences for public involvement including ethnic, economic and stakeholder groups.
- Describe a minimum of five public involvement activities over the permit term.
- Evaluate the success of this measure, including how you selected the measure goals for each of the BMPs

B) Riverlea

- Process
Stakeholders include all Village residents, with a particular stakeholder group of residents whose homes are located on the banks of the River. Update information will be posted on the Village website asking for public review and comment on development of the plan. The website includes contact information. Public involvement may include activities such as “adoption” of a sewer, placing an identification no dumping seal on a sewer inlet, litter patrol, leaf removal, treasure hunt for storm water structures, hikes to the river.
- Event Suggestions
 - 1) Volunteer recruitment
 - 2) Mark all 58 storm drain inlets with “official no-dumping” signs
 - 3) Partner with Franklin County for Riverlea participation in educational events
 - 4) Scheduled days for residents to tour outfalls, sanitary water lift station, and river
 - 5) Scheduled river clean up days
 - 6) Street tree and individual property tree program
- Best Management Practices
Provide opportunity for consideration of public input
Provide educational and inclusive activities as listed above
- Measurable Goals
Number of comments, suggestions and follow-up discussions
Number of activities conducted.
Number of participants per activity

3. ILLICIT DISCHARGE DETECTION AND ELIMINATION

With limited exceptions, illicit discharge is any discharge to the MS4 that is not composed entirely of storm water.

A) Program Requirements

- Develop and enforce a program and a plan to eliminate discharges
- Complete a comprehensive map
- Prohibit discharge through Village ordinance
- Provide information about public hazards of improper disposal
- Identify illicit discharges

B) Riverlea

- Process

Riverlea has the required complete and comprehensive map (updated 2014). Riverlea has the required ordinance prohibiting illicit discharge. The Village is 100% residential with no Home Sewage Treatment Systems (HSTS).

While incidents of residents or contractors disposing of unused or unwanted debris through the storm water system are considered rare, the public will benefit from knowing how to recognize and report suspected violations.

Riverlea's known illicit discharge is overflow from the Riverlea Sanitary Sewer Lift Station. A remote system notifies the Street Commissioner of lift station alarms such as power outages, pump failures and high levels that may lead to an overflow.

Overflow can occur when the lift station pumps become blocked due to unusual, flushed household matter that does not belong in the system. Residents will benefit from knowing how to help prevent this type of overflow which goes directly into the Scenic Olentangy River. Informed residents will help to eliminate this discharge.

- Best Management Practices

Publish documents, maps and reports on the Riverlea website.

Perform Dry Weather Outfall Screenings.

Provide information on how to identify and report a suspected violation.

Provide Citizen Complaint Form and contact information on Riverlea website.

Develop Enforcement Procedures for noted and reported violations.

Provide information about the integration of storm water and waste water systems.

Provide automatic emergency backup power (generator) for the sanitary lift station.

Conduct tours of the waste water system and the storm water system.

Ask residents who live along the river for observations and recommendations.

Introduce children to the water systems and their ability to affect the environment.

- Measurable Goals

Implementation of Complaint Reporting and Enforcement Procedures

Performance of Outfall Dry Weather Screenings

Provision of automatic backup power at the Sanitary Lift Station

Number of reported violations, residents involved and documented follow-up

4. CONSTRUCTION SITE STORM WATER RUNOFF CONTROL

This minimum control measure addresses management of storm water runoff from construction activity disturbing one acre or greater. Storm water runoff management addresses both how water is retained and released during and after storm water events and how erosion is minimized through design, management of construction activity and use of erosion control practices until the site is stabilized with permanent vegetation.

A) Program Requirements

- Ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance, equivalent to the OEPA General Permit for Construction Site Storm Water
- Site operator implementation of erosion and sediment control BMPs
- Site operator control of waste, concrete truck washout, chemicals, litter, sanitary waste
- Procedure for review of prevention plan
- Procedure for receipt and consideration of information submitted by the public
- Procedure for monthly site inspection and enforcement of control measures

B) Riverlea

Process

The Village has the required ordinance. Riverlea uses existing zoning and building codes and state regulations to require and enforce erosion and sediment controls. Riverlea will evaluate and amend existing ordinances as needed to require specific implementation of erosion and sediment control BMPs on projects where risk of pollution is high due to the extent of excavation and/or amount bare soils exposed during construction. Riverlea has an active Planning Commission serving both new construction and remodeling projects.

The Village has very few construction events, and no buildable sites of one acre or greater. Even so, Riverlea will continue to develop, implement and enforce a program to control construction site runoff control.

Best Management Practices

- Create “builders tool kit” for Planning Commission to issue with “Certificate of Appropriateness” (COA) for building construction and remodeling projects
- Create procedures and forms for public comment and Riverlea response
- Create procedures for inspections
- Create procedures for non-compliance

Measurable Goals

- Implementation of above BMPs

5. POST CONSTRUCTION STORM WATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT

Riverlea understands this measure to refer primarily to commercial development and redevelopment. The Village is entirely residential, with only single family and apartment structures. There are very few buildable lots in the Village. However, as an older neighborhood, incorporated in 1939, there is opportunity for remodeling of current homes. There are also 2 park-like common areas in the Village.

A) Requirements

The requirements for this measure underscore those of the previous measure (4).

B) Riverlea

The Village will incorporate BMPs and Measurable Goals from the previous measure (4).

6. POLLUTION PREVENTATION AND GOOD HOUSEKEEPING

This measure requires the Village to examine and alter its own actions to help insure a reduction of pollution that collects on streets and open spaces.

A) Requirements

The listed requirements for this measure include training of employees, maintenance of industrial facilities, fleet and building maintenance and storm water system maintenance.

B) Riverlea

Riverlea, as a 100% residential neighborhood with no commercial enterprise, no fleets or maintenance facilities and no employees, plans to use this measure as a residential enhancement to measures (1) and (2).

Storm Water System Maintenance and Repairs

Riverlea is committed to implementing recommended Storm Water System repairs and maintenance plan outlined in the B&N's 2014 Storm Water System report. The plan is to incorporate this work into an overall Infrastructure Renewal Project (new curbs & gutters, streets rebuild, storm sewer system repairs & upgrades, new water distribution mains & service lines, new lift station sanitary force main). The future of this \$7 million project will depend on passage of the proposed Village Infrastructure Bond Levy in Nov. 2015.

Other Measures

Riverlea will examine and evaluate implementation of the following Street Maintenance BMPs over the course of the permit period:

- Minimizing / Controlling Road Salt Application
- Street Sweeping Program