

How effective will the pond be at trapping sediment?

Unfortunately the watershed is too large to capture and treat all of the runoff from a typical storm event in this wet retention pond. The riparian buffer is used to increase the footprint of the pond through dry detention without having standing water behind residences. Dry detention allows for filtering of larger sediment particles and helps reduce erosion downstream. The table below provides sediment trapping estimates for a typical storm event by the pond system.

Soil Type	Percent Capture
Sands and Gravels	> 95%
Silts	35% - 50%
Fine Clays	< 5%



Sediment Accumulation in Trendwood Park

How can you help?

You can help improve water quality in Deadmans Run in your own yard. By installing a rain barrel in your gutters or planting a raingarden, you can help reduce the amount of storm runoff that flows into Trendwood Park. With less water entering the park, the pond becomes more efficient at trapping pollutants. To learn more, go to the City's website (<http://www.lincoln.ne.gov/>) and search with the keyword "rain barrel" or "raingarden".

Will the project help control flooding?

No, this project will not control flooding. This is solely a water quality improvement project.

Who is paying for the project?

This project is being funded through the 2012 Stormwater Improvement Bond.

Sponsored by the City of Lincoln Public Works and Utilities Watershed Management Dept.

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Trendwood Park Water Quality BMP Project

**PUBLIC MEETING
19 NOVEMBER 2013**

**INFORMATIONAL
HANDOUT**



What's going on in Trendwood Park?

The City of Lincoln Public Works and Utilities Department is constructing a **retention pond** to improve water quality in **Deadmans Run**. This pond will be 2 to 6 feet deep and will serve to remove sediment, nutrients, and dissolved pollutants from storm runoff. Native grasses will be planted around the pond to create a **riparian buffer** that will improve trapping efficiency. The design also includes a concrete **outlet structure** to control the flow of water through the pond and a concrete **forebay** to facilitate maintenance and removal of trapped sediments.

What is the purpose of the project?

To treat storm water runoff from the surrounding 270-acre urban watershed in a retention pond. This pond will trap sediment and improve water quality in Deadmans Run.

What is Deadmans Run?

Deadmans Run is a 6-mile long stream that starts in Trendwood Park and flows through Lincoln before entering Salt Creek near 27th Street and Cornhusker Hwy. Water then flows down Salt Creek to the Platte River.

What's wrong with the water in Deadmans Run?

Deadmans Run drains roughly 9 square miles of eastern Lincoln. This urbanized watershed produces pollutants such as sediment, lawn chemicals, animal waste, trash, organic matter, metals, oil and grease. Additionally impervious surfaces such as roofs and pavement in the watershed increase storm water runoff, which causes erosion in the stream. Pollution and erosion harm downstream water quality and aquatic species.

What is a Retention Pond?

A retention pond is a small reservoir that is designed to capture and hold storm water runoff for an extended period of time. The extended holding time allows for sediment particles to settle out of the water and become trapped in the pond. Natural biologic processes in the pond and uptake from surrounding vegetation help remove pollution such as nutrients and bacteria from the water.



Example of a Retention Pond

What is a Riparian Buffer?

Riparian buffers are areas of native vegetation such as tall grasses, trees, and shrubs that are planted along the banks of ponds or streams. These buffers serve to stabilize the banks and filter trash, sediment, and other pollutants from storm runoff.



Example of a Tall Grass Riparian Buffer



Example of a Concrete Outlet Structure

What is an Outlet Structure?

An outlet structure typically consists of a pipe or weir used to control the flow of water. In Trendwood Park, a concrete weir has been designed to slowly drain water through the pond to maximize trapping efficiency. Additionally, the weir has been designed to overtop at higher flows such that it will not increase flooding upstream.

What is a Forebay?

A forebay is typically a small impoundment upstream of a larger reservoir that is used to facilitate maintenance. In Trendwood Park a concrete lined forebay was designed to catch water before entering the pond to allow for easy removal of trash, gravel, and sediments by park maintenance staff.