# Green Infrastructure & Stormwater Management CASE STUDY

## Riverstone Mixed Use Development Phase 1

**Location:** Coeur d'Alene, ID
**Client:** SRM Development, Spokane, WA
**Design Firm(s):** Hatch Mueller PC, JUB Engineers
**Landscape architect/Project contact:** Hatch Mueller, PC
**Email:** jonm@architectswest.com
**ASLA Chapter:** Idaho-Montana

### Project Specifications

**Project Description:** Planning and design of a centralized storm treatment facility making use of grey and green to avoid costly storm trunk lines offsite. Site doubled as a 1.5 acre park for the devleopment.

**Project Type:**
Commercial
Part of a new development

**Design features:** The park essentially became a giant bioswale.

**This project was designed to meet the following specific requirements or mandates:**
State statute, local ordinance

**Impervious area managed:** greater than 5 acres

**Amount of existing green space/open space conserved or preserved for managing stormwater on site:** 1 acre to 5 acres

**The regulatory environment and regulator was** supportive of the project.

**Did the client request that other factors be considered, such as energy savings, usable green space, or property value enhancements?** The developer wanted the park to look like a park and not a storm facility.

## Cost & Jobs Analysis

**Estimated Cost of Stormwater Project:** $50,000-$100,000 (Public funding: None, all private funds)

**Was a green vs. grey cost analysis performed?** Yes, more cost efficient to do a hybrid approach.

**Cost impact of conserving green/open space to the overall costs of the site design/development project:** It ended up being lower due to off-site costs for grey connection to trunk mains.

**Cost impact of conserving green/open space for stormwater management over traditional site design/site development approaches (grey infrastructure)?** Significantly reduced costs (10% or greater savings). It also increased developable area for those lots served by the facility

**Number of jobs created:** Not available

**Job hours devoted to project:** Not available

Planning and Design: Not available
Construction: Not available
Annual Maintenance: Not available

## Performance Measures

**Stormwater reduction performance analysis:**

Impervious area allowances were calulated for development on a 10-acre initial project phase and converted to required bioswale area as part of the park development. Minor grey piping system was provided to convey to the park site rather than to off site trunk lines.

**Community & economic benefits that have resulted from the project:** The site sits over a sole source aquifer or recharge areas for a sole source aquifer. Stormwater for impervious areas related to the initial phase of development of the proejct are treated and released to base flow.