

An aerial photograph of a suburban neighborhood. In the center, there is a large, rectangular green lawn. Surrounding the lawn are several houses with varying roof colors (grey, brown, white) and some trees. A road curves around the left side of the lawn. The overall scene is a typical residential area.

# Pattee Creek Restoration

CITY OF MISSOULA STORMWATER UTILITY & MISSOULA CONSERVATION DISTRICT

JUNE – NOVEMBER 2022

# Introduction: Myself & BSWC

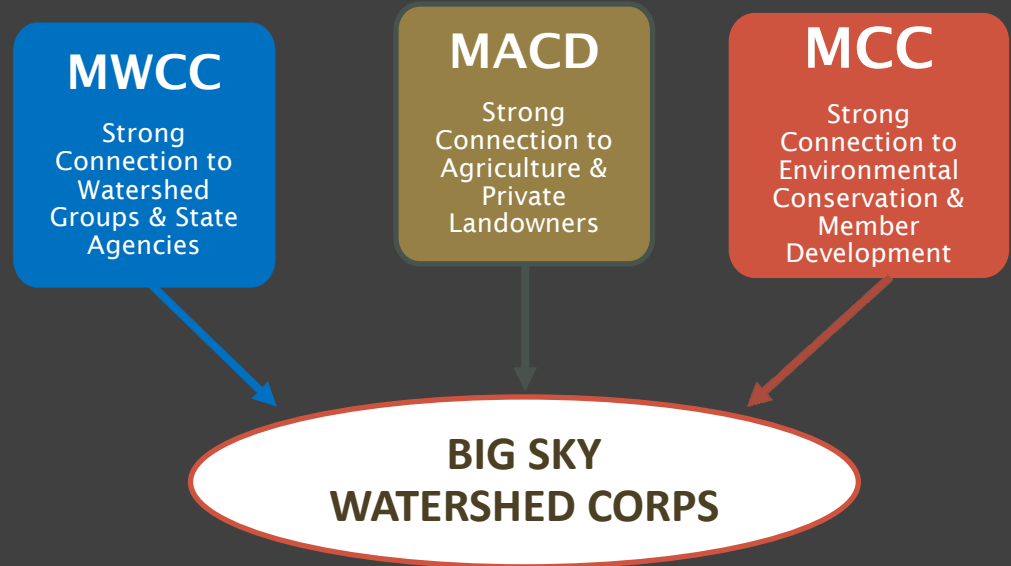
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## Mackenzie Tenan

- Big Sky Watershed Corps (BSWC) Member: January – November 2022
- From Waynesville, NC
- Masters of Science in Sustainable Engineering: Villanova University

## BSWC Program

- AmeriCorps grant funded program
- Partnership between Montana Conservation Corps (MCC), Montana Watershed Coordination Council (MWCC) and Montana Association of Conservation Districts (MACD)



# Introduction: Pattee Creek Project

**Mackenzie Tenan – Project Manager**  
**Tracy Campbell – City of Missoula Stormwater Utility**  
**Radley Watkins – Missoula Conservation District**

- Partnership between the MWCC Watershed Fund and Montana Department of Environmental Quality (MDEQ)
- Funding to assist local watershed organizations and other local entities who are currently hosting BSWC members
- Specially to address nonpoint source pollution-reduction projects in Montana's 2020 list of Impaired Waters and included in DEQ-accepted Watershed Restoration Plan

**Total Funds Awarded from MWCC: \$5308 (60:40 match)**  
personnel, materials and equipment,  
project-related education and outreach

**\*\*Additional funds awarded from DEQ for future Pattee projects: \$4975**





# Location & Scope

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# Goals and Timeline

Foundational project for the long -term goal of restoring and revegetating the entirety of Pattee Creek

- Impaired waterbody: Bitterroot River
- Referencing Bitterroot Watershed Restoration Plan

Reducing impacts of alterations in streamside and littoral vegetative covers, sedimentation, and temperature where waterbody is channelized adjacent to residential development

“Stream of concern in the Bitterroot watershed”

Focus on water quality, education, and outreach

**Task #1 (descriptive name): Landowner Outreach**

**Completion Date (month/year): June 2022**

**Anticipated Deliverables**

Deliver at least 30 pamphlets to homeowners along Pattee Creek Drive and Bancroft Street (May-June)

Lead at least 1 public meeting (May-June)

Engage and educate at least 10 community members to attend the meeting (May-June)

Identify and engage at least 4 private property owners to revegetate streambank for current project (May-June)

Identify and engage at least 4 additional private property owners to revegetate streambank for future areas (May-June)

**Task #2 (descriptive name): Draft and Finalize Landowner Agreements**

**Completion Date (month/year): June 2022**

**Anticipated Deliverables**

Enter into at least 1 private landowner agreement so they are able to maintain scoped project area within the City right-of-way after revegetation project is complete, in hopes of drafting more for other areas (May-June)

Enter into at least 2 additional private landowner agreements for riparian restoration for future projects (June)

**Task #3 (descriptive name): Assess Baseline Ecological Conditions**

**Completion Date (month/year): July 2022**

**Anticipated Deliverables**

Assess the .5 mile stretch of existing riparian vegetation along Pattee Creek Drive using the USDA NRCS Riparian Assessment

Assess, collect, and map data on the 15 foot bridges that cross the creek using GIS

**Task #4 (descriptive name): Revegetate Streambank**

**Completion Date (month/year): October 2022**

**Anticipated Deliverables**

Recruit at least 5 community volunteers for planting (August, September)

Recruit at least 20 volunteer-hours of planting (August, September)

Revegetate at least 100 feet of streambank adjacent to homeowner properties (October)

Plant at least 125 native plants, such as willows and red-osier dogwoods (October)

Protect at least 25 plants from browse (October)

# Tasks and Deliverables

## Task 1: Landowner Outreach

- Educate through pamphlets, public meetings, Healthy Riparian Guidebooks
- Promote participation in project

## Task 2: Draft and Finalize Landowner Agreements

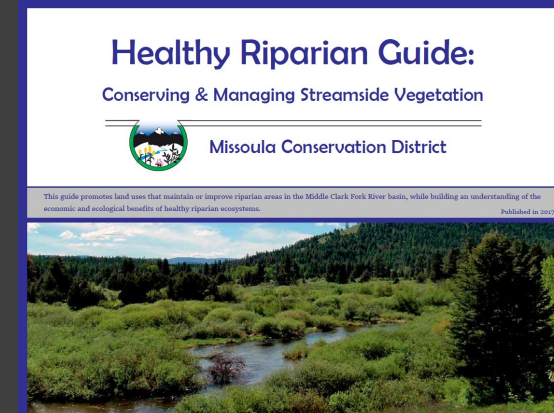
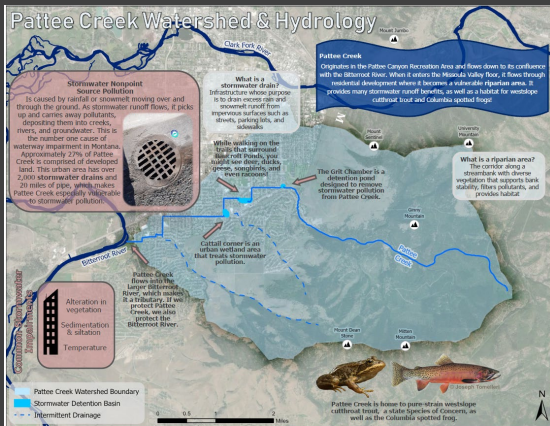
- Enter into agreements for current and future projects to “maintain” riparian areas

## Task 3: Assess Baseline Ecological Conditions

- USDA NRCS Riparian Assessment
- Collect and map footbridges that cross the creek

## Task 4: Revegetate Streambank

- Plant native vegetation and protection
- Volunteer recruiting for planting event (early Oct)





A photograph of a garden scene. In the foreground, there is a wooden plank bridge over a grassy area. To the right, a stone fire pit is visible. In the background, there are several trees, including a large white-barked tree. A mailbox with the number 130 and the name Missoulain is on the right. The text "Questions?" is overlaid in white on the left side of the image.

Questions?

Thank you!