

Middle Grand TUC Strategic Planning

Nith River above Paris



**2024 MGTUC AGM
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Trout Unlimited
CANADA



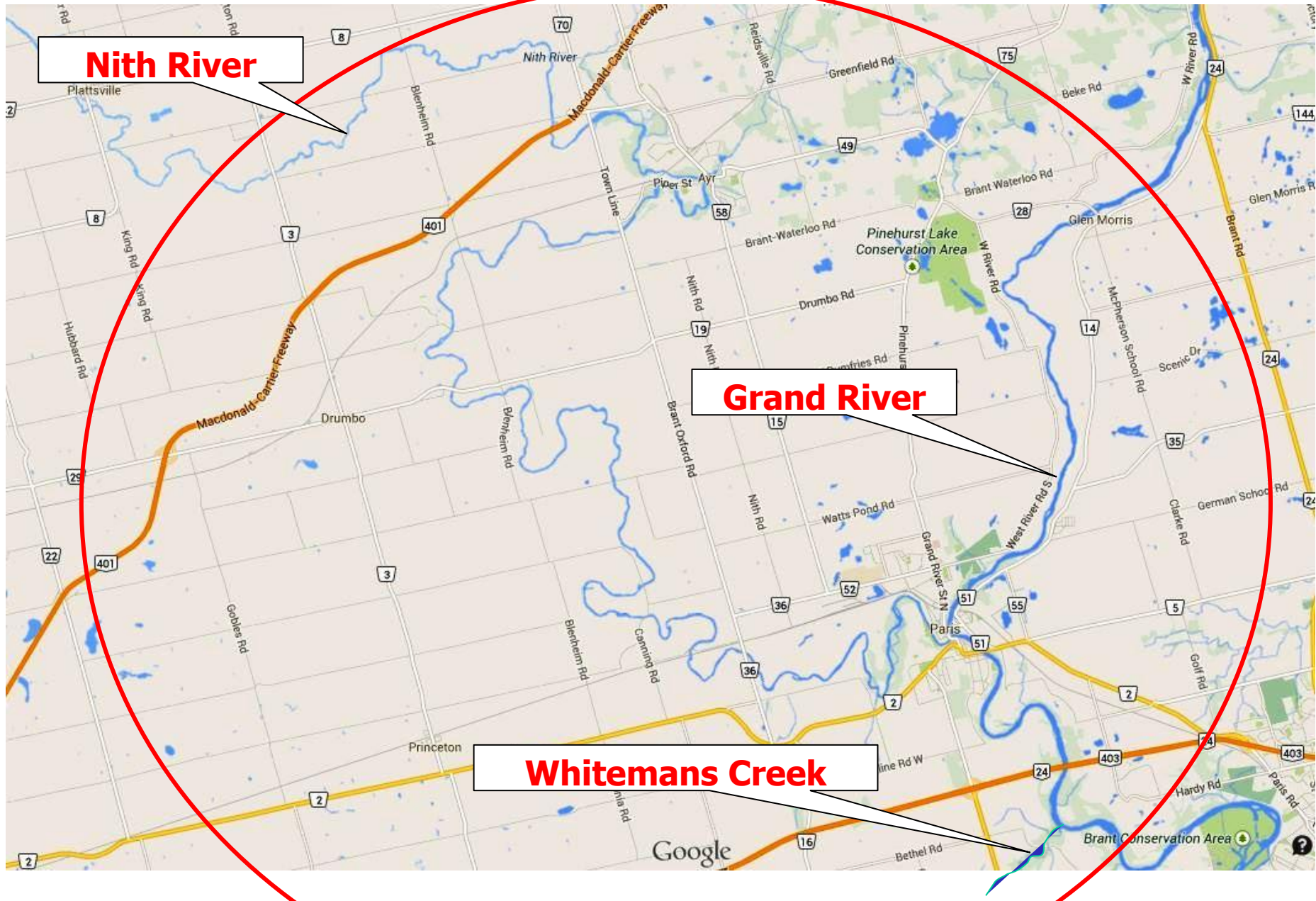
Truite Illimitée
CANADA

TUC History on the Middle Grand

A group of about seven people are gathered on a rocky riverbank next to a flowing stream. They appear to be engaged in a discussion or activity. The background is filled with dense green trees and bushes, suggesting a natural, wooded environment. The water in the stream is dark and turbulent, with some rocks visible in the shallows.

- **Whitemans Creek Chapter (1989 – 1995)**
 - Mainly Whitemans/Rest Acres at Nature Centre
- **Middle Grand Chapter (2003 – 2012)**
 - Mainly Whitemans & Falkland Creeks
- **“Reborn” Middle Grand Chapter (2014 – Present)**
 - Nith, Whitemans & small Middle Grand tribs

Middle Grand Chapter Area of Interest

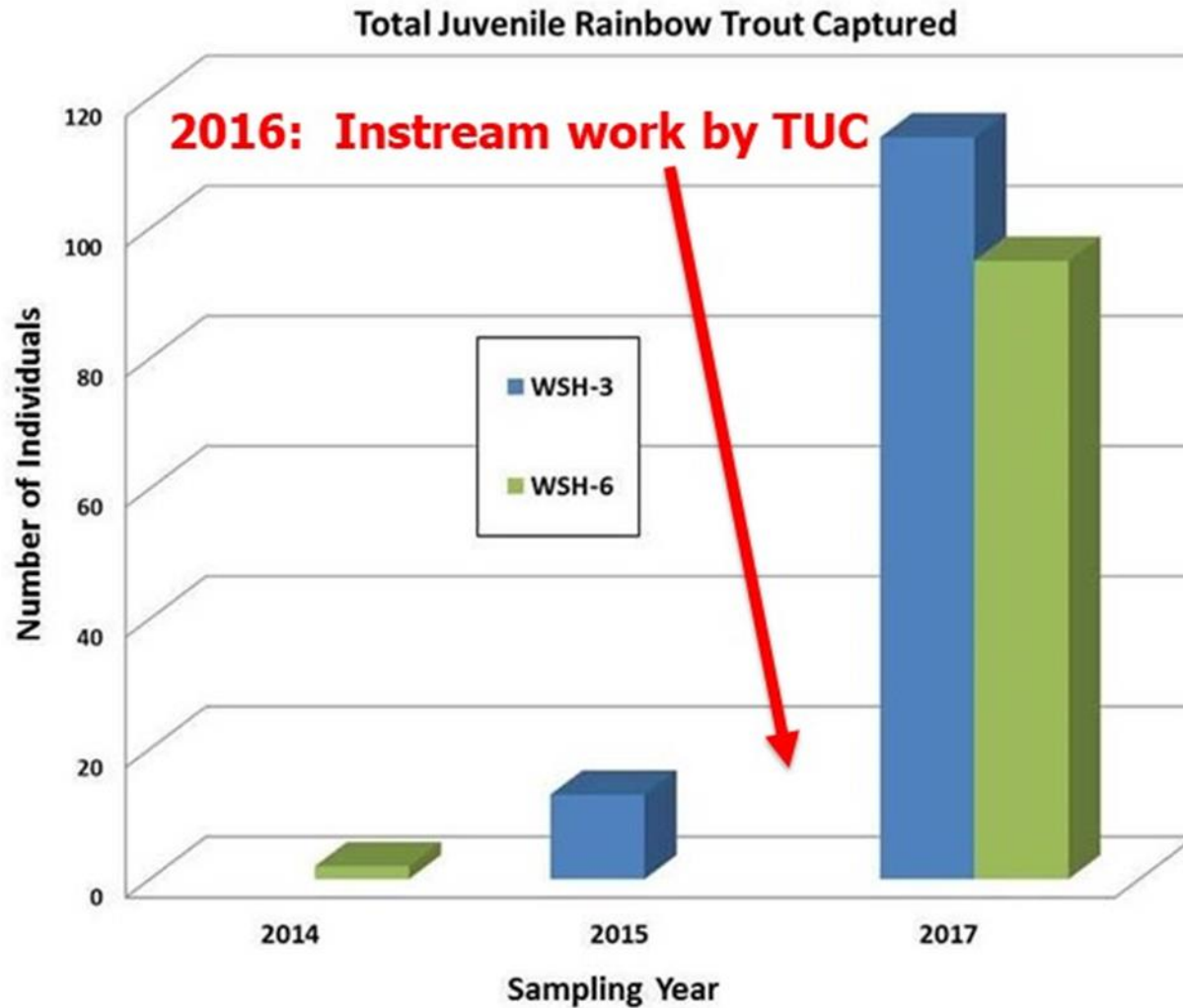


Rehabilitation Work Days



- The core of what we do
- Chapter has hosted 30+ work days since 2014
- Consistently 20+ participants per event
- Over **8,000** Person-Hours of volunteer effort

Rehabilitation Works!



But....Failures Happen. Why?



- Treating the symptoms and not the problem
- Applying the wrong technique for the wrong stream type

Biggest Danger – Using a cookbook approach to stream rehab without understanding the Big Picture!

Avoid this with proper planning.



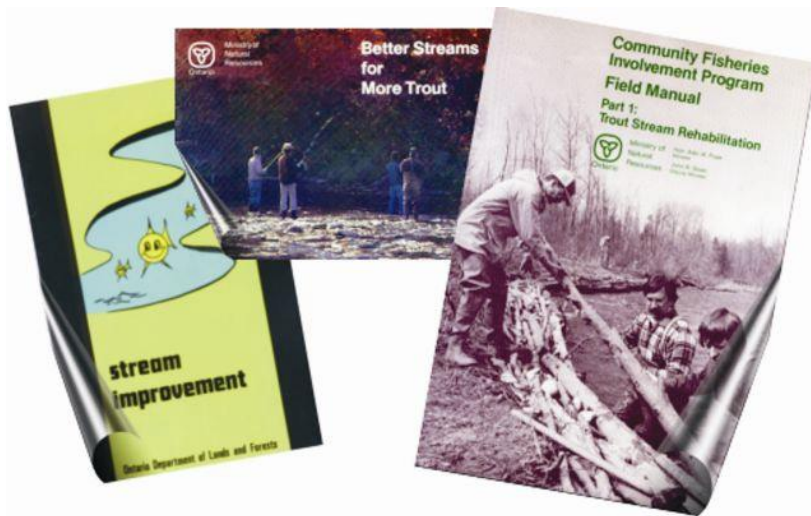
Whitemans Chapter TUC cover placement - 1992

Planning for Success



- Use a Watershed Context
- Focus on Ensuring **System** is Functional (not just the parts)
 - Species Embedded in Healthy and Natural System
- Work with the Natural Tendencies of Rivers & Streams
- Understand the Big Picture
- Treat the Causes of Problems, not the Effects

How the Stream Rehab/Stewardship Climate has Changed



Where we started

- Emerged in 1970's
- Blossomed in the 1980's (CWFIP, SPOF)

Trends through Time...

- From Agency Projects to Community Projects
- From Sites & Reaches to Watersheds/Ecosystems

The Learning Years...

Mill Creek, circa 1983



- Much of the initial rehab work was considered 'experimental'
- Techniques based primarily on work from Wisconsin and Michigan

A Community-based Approach to Fisheries Management in the Grand River Watershed

PART A

Grand River Fisheries Management Plan



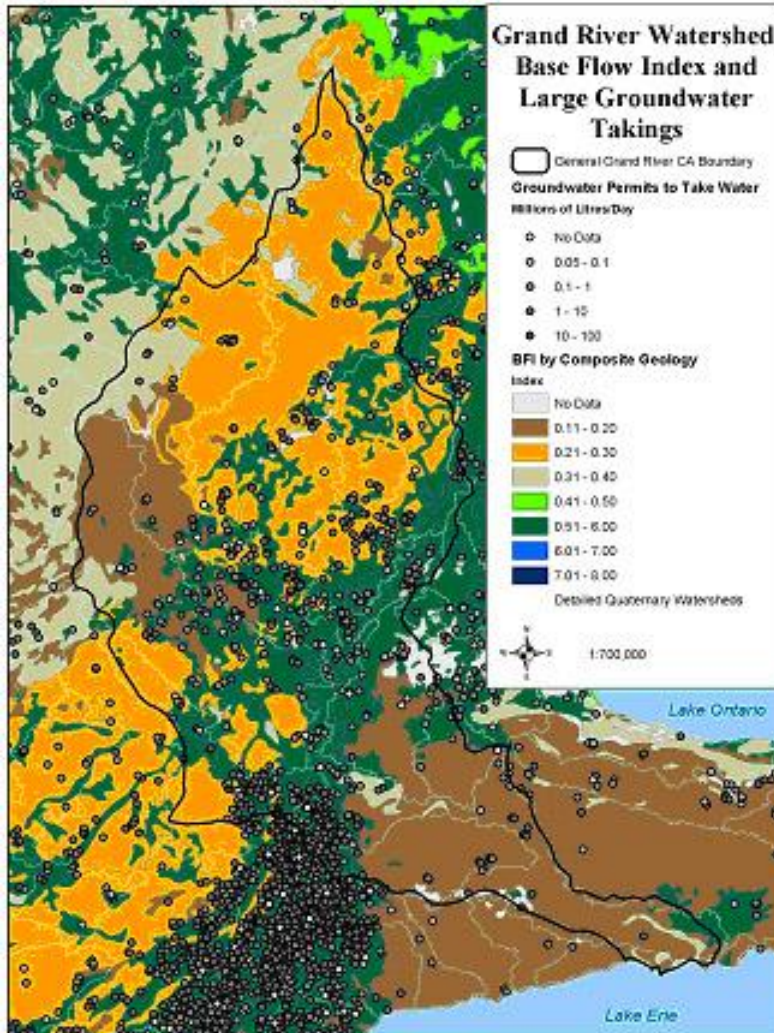
**Grand River Fisheries Management Plan
Implementation Committee**

Why is Planning Important?



- Focuses on priorities
- Tracks Progress (Feedback Loop)
- Critical for Fundraising

The Watershed Perspective



- Composed of *Table Lands* and *Corridors*
- Watershed Attributes
 - Size
 - Soils
 - Slopes/Topography
 - Vegetation
 - Climate
 - Land Use

Planning for Success: The Basics



Step 1 - Focus



- What draws you to the water's edge?
- What concerns do you have about your stream experience?
- Do other's share these concerns?

Putting these thoughts into words –
A Mission Statement

Our Mission Statement

To work in partnership with watershed residents, agencies, and other non-government organizations to conserve, protect and restore the freshwater ecosystems and their coldwater resources in the Middle Grand River, Nith River, Whitemans Creek, and their tributaries, for current and future generations through education, science-based plans, and direct action..

Trout Unlimited Canada Middle Grand Chapter

***Step 2:
Research &
Reconnaissance***



"Look Before You Leap"



Desktop Research

- Contact OMNRF, Conservation Authorities, Universities, Municipal Offices
 - Fish Plans (e.g. Grand Plan)
 - Subwatershed plans
 - Stream survey files
 - Soils maps
 - Fish collection reports
 - Historic Aerial photos & Ortho Imagery
 - Wetland mapping
 - University research studies
 - Other GIS based and hard copy file info

Site Reconnaissance & Data Collection



- Field check on issues identified during initial research
- Recon also presents opportunities for landowner, public education & partnership
- Need to collect data at three levels of scale
 - Watershed, Reach & Site

Step 3 : Evaluation & Impact Assessment

Constraint



**Intensive Agriculture
Upper Horner Cr**

Opportunity



**Abandoned Pasture on Horner Creek
Potential Tree Planting Site**

Step 4: Goal/Objectives Statement



- Reflects the desired future for your watershed & stream
- Should be consistent with Mission Statement
- Should reflect values of landowners in the watershed
- Realistic expectations (given what your research has uncovered)



before

Objectives & Goals



after

- Created from the problems (constraints) & opportunities identified in Step 3
- Provide direction for preparing, implementing and monitoring your stream rehab program
- They declare which stream reaches will be rehabilitated and what to expect when they are

GRFMP Fish Community Objectives Examples for Nith SubWatershed

NITH RIVER SUB-BASIN

Mixed water tributaries

LOWER NITH RIVER (from Town of Plattsville to mouth)

NITH RIVER: MIXED WATER TRIBUTARIES

BLACK CREEK

ALDER CREEK

EDEN CREEK

FISH COMMUNITY OBJECTIVES

- coldwater fish community in areas where geological and biophysical characteristics are present and habitat exists or has been rehabilitated
- warmwater fish community in reaches that cannot support coldwater fish

NITH RIVER SUB-BASIN

Coldwater tributaries

LOWER NITH RIVER (from Town of Plattsville to mouth)

NITH RIVER: COLDWATER TRIBUTARIES

WOLVERTON CREEK

WASHINGTON CREEK

HILLER CREEK

CEDAR CREEK

FALKLAND CREEK

FISH COMMUNITY OBJECTIVES

- coldwater fish community (consisting of native brook trout and seasonal migratory rainbow trout) in areas where geological and biophysical characteristics are present and habitat exists or has been rehabilitated

Targets



- Specific outcomes that usually have a time frame attached to them
- They should be measurable
- Often found in an **Implementation Plan** that may or may not be part of the main plan
- Usually reviewed annually (e.g. via annual work plans)

The Feedback Loop



***Step 5: Plan, Consult & Prepare
Turning Thoughts into Actions***



Alder Creek – Aug 9 2023

Consultation



- Will help you refine your objectives & targets & pick your preferred alternatives
- Who to talk to?
 - Landowners
 - Agency Professionals (both biologists & planning staff)
 - Neighbourhood groups
 - General Public

Preparing an Action Plan



- Involves developing a work plan & budget that will address annual targets
- Usually based on a calendar year
- Will guide your labour, equipment & supply requirements
- **Budget will guide your fundraising**

Step 6 - Implementation



Landons Creek – July 26 2023

Some Tips from Scott & Barry...

- Break the annual work plan (& each work event) down into logical steps – what is required for each?
- Recruit volunteers & assign roles
 - How many volunteers for each role?
- Check lists are very useful
- Assign a first aid/safety supervisor
- Invite media
- Take lots of pictures – before, during & after
- Acknowledge & thank landowners/volunteers

Step 7: Monitoring & Reporting

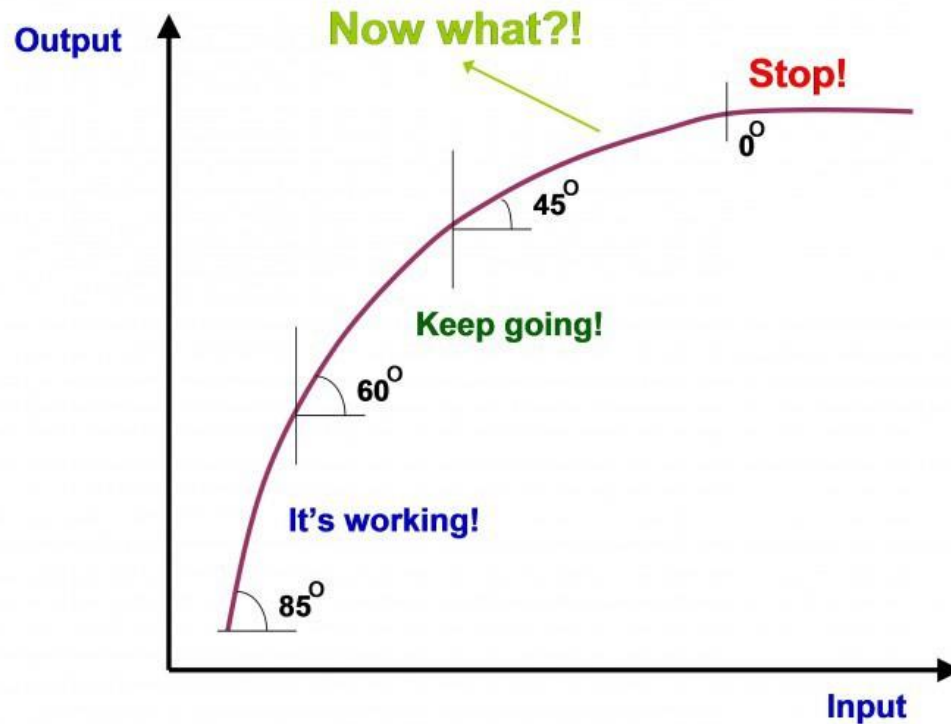


Monitoring Tips



- Objectives & targets will guide you where to focus monitoring
- Before & After Data are critical
- Establish test and reference reaches to follow changes through time
- Take plenty of pictures

Law of Diminishing Returns



Degraded streams with high potential respond much better to stream rehabilitation than streams that are already near carrying capacity

Lessons Learned



“It’s not easy being green”

Kermit the Frog

- Do your homework. Careful planning is the key to success
- Start slow and involve all stakeholders – credibility in the community is earned
- Collect the data, and monitor to ensure goals are reached
- Don’t go it alone – partnerships are vital
- Respect and involve landowners: their support is key

Where are We in the Planning Process?



- Plans needed for 3 Units (Nith, Whitemans & Grand tribbs)
- Draft Whitemans Plan nearly complete; Background info partly compiled for Nith
- Meanwhile, we have compiled a “Best Bets” list of projects based on GRFMP and our knowledge of the system

Overview of Whitemans Draft Plan



Thermally stressed trout at Rest Acres Creek mouth

Major Issue

- Summer water temperatures in lower Whitemans Creek are marginal for trout
- If it wasn't for numerous thermal refugia there would be few trout to fish for there

Draft Best Bets for Whitemans Creek



Cool things down by:

- Planting trees in the upper reaches
- Enhance quality and quantity of thermal refuge habitat in lower reaches
- Improve access to cold tributaries (thermal refuge)
- Look for opportunities for floodplain pool & wetland creation in upper reaches

"Best Bets" Projects List 2022



Reinhart Creek dam



Washington Creek Culvert



Airport Creek Culvert



Caledonia Fishway Retrofit

- An opportunistic list of "on the shelf" projects that was compiled by the MGTUC in August 2022.

Best Bets List: 8 Projects

Project	Location	Ownership	Description
1. BRGC dam removal and associated rehabilitation	Landons Creek near Burford ON (Brant County)	Brant Rod and Gun Club (BRGC) downstream of Bishop Gate Road. Private landowners further upstream	Remove low head (1.5 m high) dam located on BRGC property and rehabilitate fish habitat through channel narrowing and cover placement above and below the dam site.
2. Horner Creek riparian tree planting	Horner Creek in Blandford-Blenheim Township (Oxford County)	2 sites for demo project: Enbridge Gas and farm landowner	Plant tall stock trees in abandoned pastureland. Promote 2 demonstration sites to achieve landowner buy in for a larger scale future afforestation initiative.
3. Rest Acres Creek rehabilitation	Robinson Road south of Paris ON (Brant County)	GRCA	Modify (lower invert) of a culvert blocking flow. Cedar canopy removal to encourage a more diverse riparian zone.
4. "Cool Crew" thermal refuge enhancement team	Whitemans Creek tributaries between Burford and Grand River confluence (Brant County)	Various sites owned by GRCA, County of Brant, Five Oaks Retreat, and private landowners	Hire a crew of summer students to enhance previously identified thermal refuge sites on lower Whitemans Creek through strategic placement of structures that increase cover and depth.
5. Washington Creek culvert modification	Washington Creek south of Washington ON Oxford County)	Township of Blandford-Blenheim	Remove three undersized culverts that are blocking fish migration and impairing fluvial processes. Replace with single larger culvert or single span bridge.
6. Reinhart Creek culvert removal	Reinhart Creek near Nith River confluence in Ayr ON (Waterloo Region)	GRCA	Remove perched concrete box culvert that is blocking fish migration and impairing fluvial processes. Replace with a properly placed single culvert or single span bridge.
7. Airport Creek culvert modification	Airport Creek near Brantford ON (Brant County)	Private	Build 2 rocky ramp grade control structures downstream of a perched culvert that is blocking fish migration and impairing fluvial processes.
8. Caledonia Dam fishway retrofits	Grand River in Caledonia ON (Haldimand County)	GRCA	Modify entrance to an ineffective fishway by cutting a new entrance in the concrete side wall and installing 3 new baffles to create a pool and weir fishway as an interim measure until a new fishway can be constructed.

**Barrier removal and tree planting are usually safe bets
(but not always)**

Remove Barriers with caution



Apps Mill Dam Rest Acres Creek
Circa 1987



Brant Rod & Gun Club Dam
Landons Creek

The Journey Continues...

