Clinton River Coldwater Conservation Project

Rochester Hills City Council

June 21, 2006

Watershed Conservation Campaign

- Generate public support for the Clinton River as a valued recreational resource
- Conservation & habitat efforts to improve:
  - river access
  - water quality, fish habitat
  - river aesthetics
- Multi-year; multi-phased

CRCCP Partners

- DNR Fisheries Division, Livonia Office
- Trout Unlimited Chapters
  - Vanguard
  - Challenge
  - Clinton Valley
  - Paul Young
  - TU National
- Oakland County Planning Dept.
- Auburn Hills
- Clinton River Watershed Council

CRCCP Supporters

- Rochester & Rochester Hills
- Oakland County Drain Commission
- Daimler Chrysler
- Oakland University
- Oakland Land Conservancy
- Michigan Fly Fishing Club
- C. S. Mott Foundation
- St. Paul's Fly Fishing Club

Factors That Lead to CRCCP (2002)

- TU wanted a local project
- Found relevant book for direction
- CRWC's Strategic Plan initiative
- DNR's Clinton River Assessment
- EPA Phase II Storm Water Controls
- Clinton is a unique resource

CRCCP Objectives

- Determine the habitat's "limiting factor" for trout production
- Assess potential for expanding the existing trout fishery
- Increase public awareness and access to the river/tributaries for recreation
- Develop a sustainable, self-supporting fishery

Trout Unlimited's Mission:

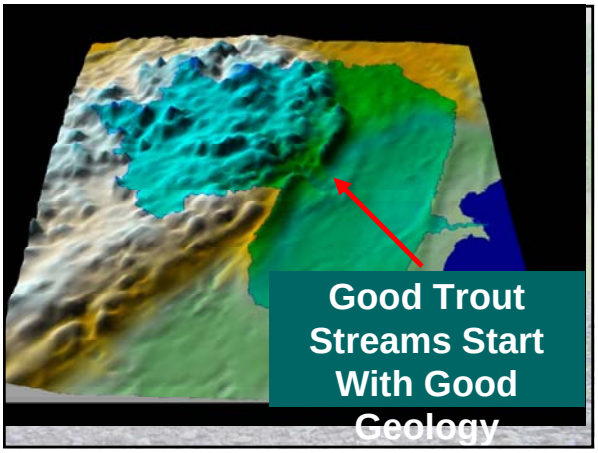
- To conserve, protect and restore North America's trout and salmon fisheries and their watershed

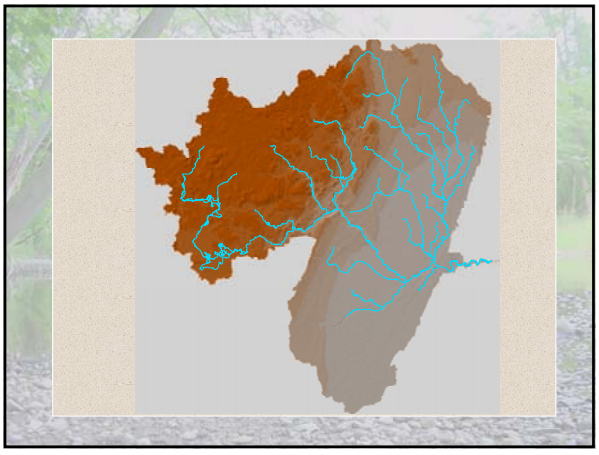
TU's Approach:

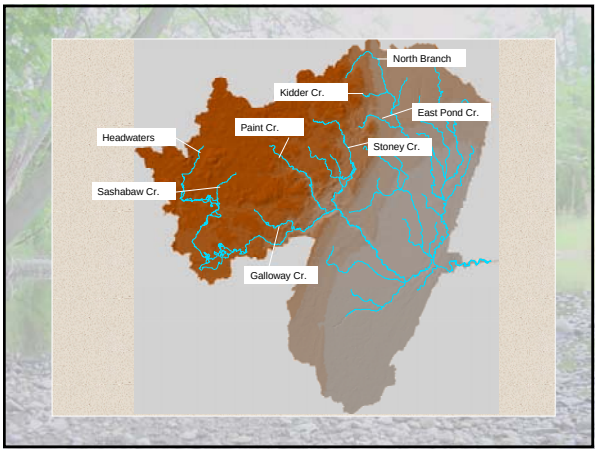
- Local, state and national levels
- Extensive and dedicated volunteer network
- National & regional offices
  - ✓testify before Congress &intervene in federal legal proceedings
  - ✓publish a quarterly magazine
  - ✓work with 125,000 volunteers in 500 chapters nationwide

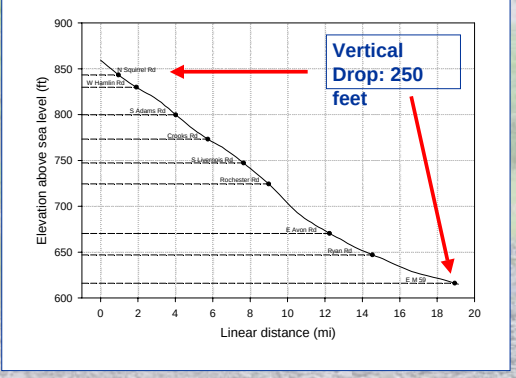
From TU Training:

- Strong Chapters have active members
- Local resource project is the best way to recruit active members
- Enthusiastic members ensure future chapter leadership
- Clinton River Coldwater Conservation Campaign became such a project









Project Study Area

- Clinton Mainstem (14 miles)
  - Opdyke Rd., Auburn Hills
  - Yates Dam, Rochester Hills
- Galloway Creek (5 miles)
  - Galloway Lake, Pontiac
  - Clinton River confluence, Rochester Hills
- Paint Creek (15 miles)
  - Lake Orion Dam
  - Clinton River confluence, Rochester

Potential for Success

- Current Clinton River steelhead fishery
  - high angler hours & success rate
  - documented steelhead spawning, upstream to Paint Creek
- Paint Creek trout fishery
  - high angler hours & success rate
  - Lake Orion bottom-draw discharge lowered summer water temperatures
- DNR river assessment
  - good indicator species
  - good-to-marginal summer water

Clinton River Coldwater Conservation

Approach:

- Gather data to assist DNR
- Determine what is limiting trout production in the project area
- Develop action plan based on those results

CRCCP Volunteer Training

CRCCP Conclusions (to date):

- Low base flows -- the biggest problem
  - marginal summer temps
- Low flow is lake level, not weather related
- River & its habitat -- healthier than generally recognized
- Setbacks still can occur (2005 fish kills)

•What has been accomplished?

CRCCP Accomplishments (to date):

- Water temperature data (Year 4)
- Water level/flow data (Year 4)
- Macroinvertebrate sampling (Year 3)
- Physical habitat survey (Clinton & Paint)
- MDNR Fisheries Assessment Study
- Brown trout stocking resumed (Year 3)
- Steelhead trout stocking increased

April 2004 Brown Trout Stocking

•4700 fingerling brown trout
•425 adults

2005 Year-In-Review

6 Projects

Clinton River Restoration Project

- National Fish & Wildlife Foundation grant
- OLC's Blue Heron Rookery Preserve, Rochester Hills
- Quail Ridge, Butler Ridge, & Rookery Woods homeowners
- Under permit by MDEQ, w/ MDNR Fisheries' assistance


Lack Of Shelter, Low Water
Lack Of Natural Riparian Corridor
12/04/2004


May 21st Work Da
Hauled Away By City of Rochester Hills!


5 Lunker Structu
6 Log Bundles


Streambank Restoration In OLC's Blue Heron Rookery Preserve
Planted 471 potted plants

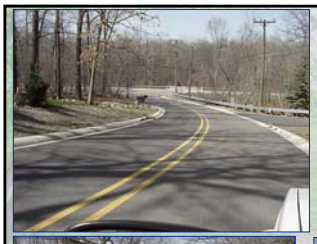

Streambank Preparation
Initial Planting


3 Months Later

Other 2005 Projects

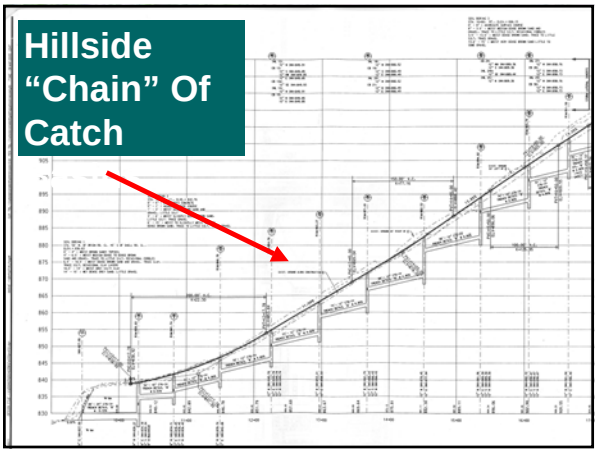
- Paint Creek Road Erosion Repair
- Stream Temperature Monitoring
- River Flow Study
- Clinton River Steelhead Fishery
- River Access Maps

Paint Creek Erosion Repair – Snell Road Hillside

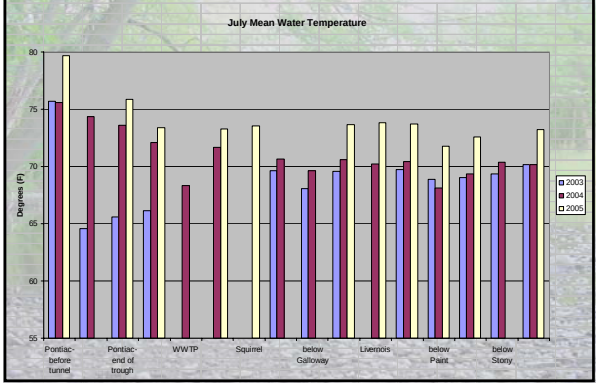


Snell Road Today

Hillside "Chain" Of Catch

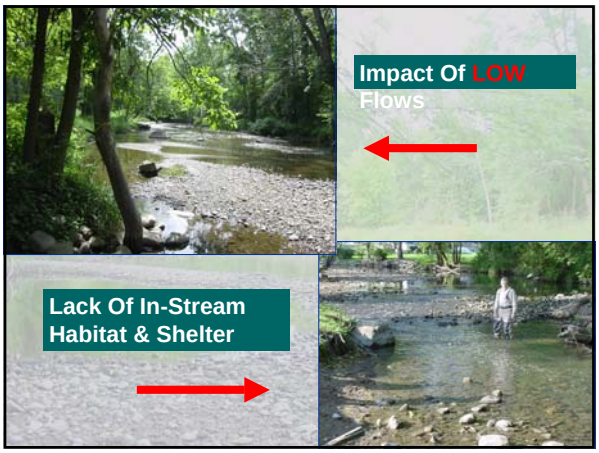


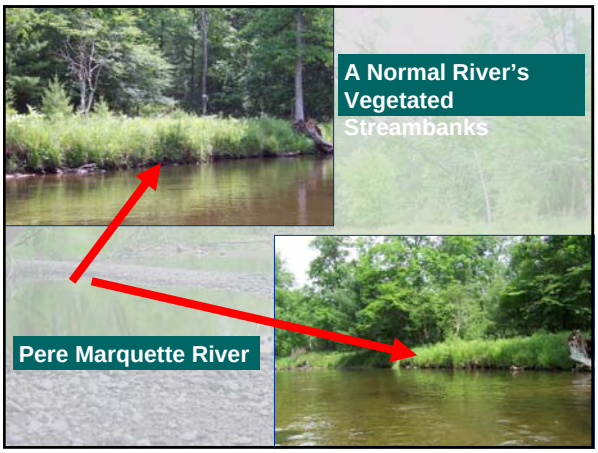
Temperature Monitoring

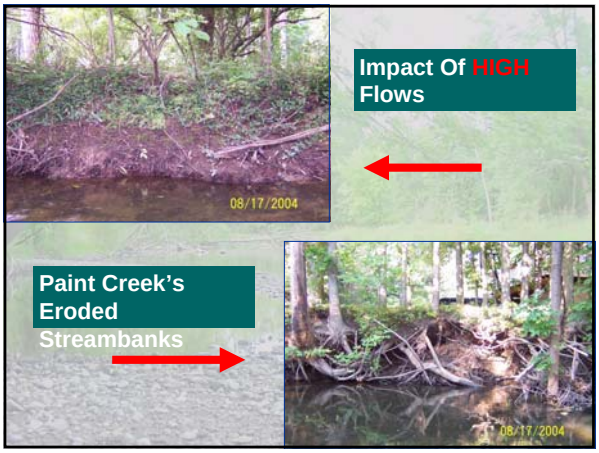


River Flow Study

- Impact of LOW flows
  - Loss of physical habitat (stream width & depth)
  - Warmer water temperatures
- Loss of spawning habitat
- Impact of HIGH flows
  - Loss of in-stream shelter
  - Channel sedimentation

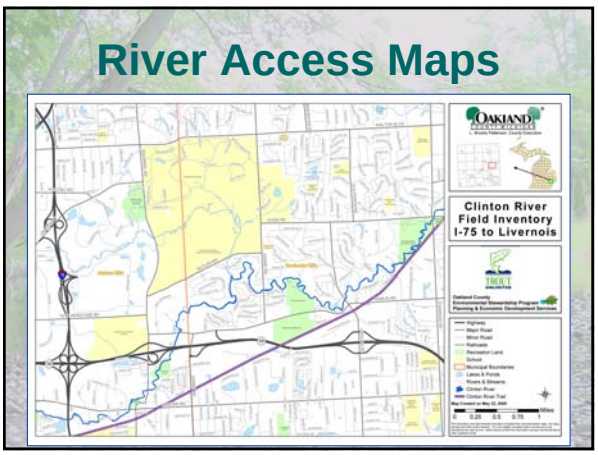

Impact Of LOW Flows
Lack Of In-Stream Habitat & Shelter


A Normal River's Vegetated Streambanks
Pere Marquette River


Impact Of HIGH Flows
08/17/2004
Paint Creek's Eroded Streambanks
08/17/2004


Clinton River Steelhead Fishery


April 19, 2006: 22,265 Yearling Steelhead Planted


River Access Maps
Clinton River Field Inventory I-75 to Livernois

Project Direction for 2006

1. "Sit & Study" Clinton River projects
2. "Focus" on Paint Creek
   - Already a managed trout stream!
   - Has its own set of problems

- New volunteers Welcome!

Clinton River Coldwater Conservation Project

THANK YOU FOR YOUR SUPPORT!