“SOLVING THE PROBLEM” WITH A WRP

Define the Problem
Set the Goal
Chart the Course
Disclaimer

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Sideboards

• Information in this presentation is most applicable to addressing identified beneficial use impairments.

• “Pollution” includes contamination or other alteration of the physical, chemical, or biological conditions in a waterbody, such that water quality standards are exceeded. Pollution can include everything from heavy metals, to changes in temperature and flow, to loss of riparian and wetland habitat.
Scoping
Why

• You don’t have the time or the resources to do everything. If you try to do everything, you will burn out.
Who

- Who should be involved in scoping?
- How should they be involved?
Who

• Your watershed group, and any others who regularly attend your meetings
• The people you can depend on (this is work)
A Few Essential Roles

• A facilitator
• A scribe
• A good writer
• Someone to bring the doughnuts
Who Else?

• Community at large
  • Use a tool (survey, interview)
• Stakeholders
• Get on the agenda.
  • You will typically get more information and build more productive relationships if you go to them, rather than asking them to come to you.
• Be purposeful in your contact
  • Have a message and a set of questions
  • How do you demonstrate you value a stakeholder’s time?
What should I be aiming for?

- 1 to 4, 12-digit HUCS
- One or two impairment causes on a longer stretch of stream
- One or two impairment sources in a larger watershed
Another Way To Look At It

In the course of a year or two, do you and your staff/board have time to personally meet the owners/managers of all the causes and sources you hope to address?
Why not leave the door open . . .?
How to Get There

• Low Hanging Fruit
• Ask Questions
• Recovery Potential Screening
Low Hanging Fruit

- Streams of local interest
- Pollution of local concern
- Streams with ongoing, large-scale restoration efforts
- Streams with charismatic megafauna
- Streams with glaring problems
- Streams where several landowners have expressed interest in doing projects
Ask Questions

- What are landowners willing to support?
- How is the watershed used, and how might it be used?
- What can you get funding for?
- Will the stream fix itself over time?
- How will you detect change?
Recovery Potential

- Social factors
  - Political demographics
  - Attitudes towards government involvement
  - Tight-knit vs fractured community
  - Will you need to wait for a key landowner to move or die?
  - Is there a local champion?
  - Effect on people’s lives if the problem goes unfixed, vs if it gets fixed
Recovery Potential

- Economic factors
  - Relative costs associated with addressing different problems
  - What are you likely to get funding for?
Recovery Potential

• Physical limitations
  • Flow depletion/augmentation from irrigation or dams
  • Tight transportation corridors
• Urban development
• Natural conditions
Important: Be Clear; Be Realistic

- Potential vs perfection – “don’t let the perfect become the enemy of the good”

- Don’t try to turn the lower Milk River into a Rocky Mountain trout stream

- Use the 80:20 rule (identify and set aside the 20% you can’t agree on, and focus on the 80% you can agree on)
Now that you have a planning area . . .
Set a goal to create **measurable improvement** in the physical, chemical, or biological health of your stream or lake.

- Be clear; be realistic
- 10-20 year planning horizon (*minimum*)
- Multiple partners
- $$$
Examples

• Achieve water quality standards on ABC Creek
• Achieve the TMDL target for E. coli on the East Fork of ABC Creek
• Get ½ way to achieving the TMDL target for sediment on the North Fork of ABC Creek
• Reduce nitrogen loading in the ABC watershed by 25%
• Reduce E. coli loading to ABC Creek from livestock by 50%
• Create permanent riparian buffers along 50% of XYZ Lake
Quantify the Distance

TMDL Targets

Instream Monitoring

• Intangible rallying point
• Tough to track incremental improvement
• Can be technically or financially infeasible for many groups
• Baseline may already exist as part of TMDL / Assessment
Physical Features/Source Inventory

- Walk the Stream (with a purpose)
  - NRCS Riparian Assessment Method
- Proper Functioning Condition (PFC)
- Multiple Indicator Monitoring (MIM)
- USFS (various methods)
Physical Features/Source Inventory

• Aerial and ground photo surveys
  • GIS
  • Google Maps “street view”
  • Bing Maps “streetside”
  • Historical Aerials
    • USGS EarthExplorer https://earthexplorer.usgs.gov/ (may need a GIS map viewer and 7-Zip file extractor)
    • Google Earth “history”
Google Street View
Google Street View
Aerial Photo Survey

ABC Watershed - Livestock

Legend
- WCIP: AU305B_Streams_2016
- Overgrazed_Pasture
- Heavy Use_Pasture
- AFO

ABC Watershed - Pollution Potential

Legend
- Pollution_Potential
  - High
  - Moderate
  - Low
Historical Imagery

2005

2013
Pollutant Transport Pathways

- Tributary flows
- Groundwater
- Surface water runoff
- Direct discharge
Pollutant Pathways
Recognizing Processes

- Physical
- Chemical
- Social
Milestones

- Points on a path, moving toward a defined endpoint
- Milestones vs activities
Measurable, Attainable

- Important for sustaining volunteer commitment
- Important for justifying funding needs to potential funders
- Chance to celebrate success along the way
Spacing and Scheduling

- Not too far apart, not too close together
- Evenly spaced
- Use logical points along the path
Remembering and Implementing
Write it Down

• 1 sheet of paper, front and back if necessary
• Include the following
  • Contact information
  • Goals
  • A map of the planning area
  • A milestone chart
  • Anticipated schedule
  • Review and revise frequency (5 years or more)
  • A plan for celebrating
• (Note: *I am not suggesting a 1-2 page WRP, just a fact sheet for easy reference 😊*)
Remembering and Implementing

• Post the milestone table in a conspicuous place, and make it public
• Publish your goals (website, posters, newsletters)
• Use the plan to guide annual planning sessions with your board; refer to the plan often in your board meetings so that everyone becomes familiar with it.
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