Project Planning

Mark Killar, Western PA Conservancy
Bob Hedin, Hedin Environmental

Purpose:
Complete Projects that Achieve Stream Restoration or Organizational Goals

Choosing a Fundable Project

If there are multiple projects: why is this one selected?

- Restoration Plan or Rivers Conservation Plan that lists it as a high priority project
- Stream Assessment that can be used to show the priority from water quality perspective
- Site specific reason for the project's priority

No Restoration Plan or Assessment

- Technical Assistance Program for “simple” projects
- Develop Proposal to develop Restoration Plan

Selecting the Project

- Understand why a particular project is prioritized
- Talk to DMO Watershed Manager: make sure he/she agrees with the project selection

Once a Project is selected, the goal should be to develop a plan that can be worked into a Grant Application that has a good chance of being funded

Aspects of a Good Project Plan

- Partnerships developed
- Defendable treatment strategy
- Permitting issues considered
- Property ownership settled
- Defendable budget
- Realistic schedule
- Anticipated benefits defined
- Long term Operation and Maintenance considered

Aspects of a Good Project Plan: **Partnerships**

- County Conservation District
- Local municipality
- Fish and Boat Commission
- Game Commission
- Other Environmental Organizations
- PADEP District Mining Office
- Local state Representatives
- Local environmental companies
- Local businesses
- Property Owners

Aspects of a Good Project Plan: **Partnerships**

- Letters of commitment or support from the partners

Aspects of a Good Project Plan: **Defendable treatment strategy**

- Good record of water chemistry and flow rates
- Application of "standard" treatment technology to chemistry and flow
  - Work with an experienced consultant
  - Work with PADEP DMO Watershed Manager
  - Use OSM's "AMD Treat" software
- Application of innovative technology
  - Plan on providing a technical explanation
- Face up to difficult aspects of the project
- Explain the general plan
  - Size of treatment elements
  - Site acreage and elevation

Aspects of a Good Project Plan
Permitting issues considered

- Permitting requirements depend on
  - the presence of wetlands and waterways
  - the condition of these resources
  - Project's impacts to these resources
- If permanent impacts to existing wetlands or waterways occurs, mitigation may be required
- At this time, stream restoration does not mitigate for permanent wetland impacts

Aspects of a Good Project Plan: **Property owner issues settled**

- All affected property owners should be contacted and easements obtained
- Easement forms are available on the Growing Greener web site
- For public lands, letters of support from applicable land management agency

Aspects of a Good Project Plan: **Defendable budget**

- Obtain budget forms from Growing Greener web site
- Scope out design, permitting, and construction tasks
- Develop a detailed list of list of tasks (spreadsheet)
- Determine which items tasks can be done by group and which will require contracting
- consult with consultants, engineering companies, and construction companies to estimate costs
  - can ask potential subcontractors to provide cost estimates and submit with the proposal (lock in relationship)
  - can develop an estimate of the total cost of the project and request this amount with a commitment to bid the project tasks

Show example

Aspects of a Good Project Plan: **Defendable budget**

- Investigate prevailing wage requirements

Aspects of a Good Project Plan: **Develop Realistic Schedule**

- Place tasks in chronological order and develop schedule
- Schedule killers
  - final contract with Commonwealth
  - Base map development
  - Joint permits
  - Late fall or early spring construction
- Spreadsheet basis is usually useful

Show example

Aspects of a Good Project Plan: **Anticipated Benefits Defined**

- Quantify the project's expected benefits
  - Pounds per day of pollution removed
  - Percentage of pollutional loading to stream removed
  - Calculated improvements of instream water chemistry
  - Feet (miles) of stream with restored fishery
- If project cannot provide immediate fishery benefits, then explain the "big picture" and how this advances toward an achievable goal

Aspects of a Good Project Plan: **Long-term O&M Considered**

- Develop list of O&M responsibilities
  - Routine inspections
  - Monitoring
  - Simple maintenance
  - Major repairs or maintenance
  - System rebuild
- Determine whether group can commit to portion of the responsibilities
  - Letter of commitment?

Get DEP Buy-In

- All projects should be presented to DMO Watershed Manager
  - Alert manager to possible proposal months ahead of time: meet at site to discuss ideas
  - Provide manager with draft technical proposal and budget as it develops
  - Listen and react to DEP concerns

Put it all together into Proposal

- Fill out application
- Technical attachment
- Budget attachment
- Mandatory letters of acknowledgement
- Letters of support
- Submit on time

You've Got the Money:

Now What?

Planning and Design

Create a New or Cultivate an Existing Coalition/Partnership

To Provide Technical and Administrative Assistance with:

- Water Quality
- Engineering
- Legal
- Contracting

Assist with Financial Management

- Up-front Costs
- Hold and Distribute Funds
- File Reimbursement Claims
- Keep Adequate Records (in-kind)
- Prepare and File Reports

To Develop a Public Relations Program

- With Your Organization
- With Cooperating groups/agencies
- With Media
- Educational Community

To Manage the Project

- Identify Milestones
- Develop a Timetable
- Conduct Status Reviews

Obtain Accurate and Adequate Water Quality Data

A. Chemistry (AMD Specific)

- pH
- Metals – Iron, Aluminum, Manganese
- Net Alkalinity
- Net Acidity
- DO, Conductivity, Sulfates

B. Biological

- Macroinvertebrates – Fish

Obtain Accurate and Adequate Water Quality (cont.)

C. Flow Rates

- One year at monthly intervals
- Four Seasons
- High/Low Flow minimum

Secure Assistance for Survey and Design

From Who?

- Private Consultants
- DEP/NRCS (Local, State, Fed.) (reimbursables)
- Volunteers
- Conservation District Staff

Obtain Land Rights/Permits

- Review county tax maps
- Search deeds
- Check for utility easements, mineral & oil rights
- Prepare and sign lease agreement(s) or easements (survey, construction, O&M)
- Purchase Land
- File for permits/waiver application

Arrange for Contracting and Inspection

Who Will Provide These Services?

What Services are Needed?

- Sponsor (Watershed Group)
- Conservation District
- RC&D Council
- Local, State, Federal Agency

Arrange for Contracting and Inspection (cont.)

What is Needed?

- Advertising/Bid Specifications
- Site Showing (with qualified person)
- Bonding (Bid & Performance)/Insurance
- Construction Schedule (Performance Time)
- Liquidated Damages (Penalties)
- Bid Opening
- Contract Awarding
- Breach of Contract
- Act of God damages

Developing a Monitoring Program

A. Who Will Do This?

- Sponsors/Volunteers
- Conservation District
- Local, State, Federal Agency
- Consultant ($)

Developing a Monitoring Program (cont.)

B. What Will Be Done?

- Sampling
- Testing
- Recommendations for Change
- Record Measurable Environmental Results

Perform Operation and Maintenance

Identify Items Requiring O&M

- Plumbing (Inflow, Outflow, Internal)
- Embankment Stability (Uneven settlement /sloughing)
- Vegetative Cover/Erosion
- Wildlife Damage/Vandalism
- Managing the System (Flushing, Flow Direction)
- Removal of Accumulated Sludge
- Resource Recovery

Perform Operation and Maintenance (cont.)

Assign Responsibilities

- Sponsors/Volunteers
- Landowner (Public Land)
- Sportsman's Group
- Local, State, of Federal Agency
- Private Consultant

Start Hedin (move to front)