Partnerships: The Key to Successful Volunteer Monitoring Ventures in Pennsylvania

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Volunteer Monitoring in Pennsylvania

180+ known groups

- Watershed Associations
- Senior Environment Corps
- Lake Associations
- School groups
Citizens’ Volunteer Monitoring Program (CVMP)

Goals

• Help citizens know their water resources better

• Give DEP a better understanding of water resources by showing volunteers collect quality data

Activities

• Technical assistance and guidance

• Watershed Snapshot

• Study design

• Workshops and conferences
CVMP Lake Program

Partnership between Clean Lakes, CVMP, volunteers

Includes:
- Water quality sampling
- Aquatic plant mapping

Future may include:
- Bacteria sampling
- Fishery info
CVMP Lake Program - WQ
Sampling Regime

Minimum 3X/year
- Deepest and other
- 1m below surface and 1m above bottom
- Before noon

Collect in situ:
- Dissolved oxygen
- Water temperature
- pH
- Secchi depth
CVMP Lake Program - WQ Sampling Regime

Collect for lab analysis:

- Total nitrogen
- Total phosphorus
- Total suspended solids
- Alkalinity
- Chlorophyll a
CVMP Lake Program - Macrophyte Surveys

On an outline of the lake shoreline, mark the coverage and density of:

• Floating plants (F)

• Submerged plants (S)

• Shoreline (emergent) plants (E)
Bacteriological Monitoring Project

Partnership between Assessments and Standards, CVMP, volunteers

400 stream segments
• 2 sites per segment
• 2 thirty day periods – 5 grabs

Bacterial indicators
• Fecal coliforms
• *E. Coli*
• *Enterococci*
Bacteriological Monitoring Project

2001 - Philadelphia SEC and DEP pilot

2002 - Five volunteer groups trained

2003 - Seven volunteer groups trained
Bacteriological Monitoring Project

Results:

• Philadelphia Sewer Authority working cooperatively with SEC to identify leaking sewer lines

• Data reviewed for use in 305(b)/303(d) process
  Data used from two groups for listing, others need more info
Pennsylvania Senior Environment Corps (PaSEC)

Partnership between DEP, Aging and EASI

- 25 Senior Environment Corps
- Monthly sampling – Physical, Chemical
- Twice a year – Macroinvertebrates, Habitat
Pennsylvania Senior Environment Corps (PaSEC)

CVMP provides technical assistance and guidance:

- Field manual / training manual
- EPA approved QAPP
- Trainings - designated trainers
- Database
- Partnerships - intergenerational
Challenges

- Old attitude that only pros can do the job
- Money and staff needs
- Coordinating within and outside the agency
Overcome Challenges

- Visionary leadership
- Support since late 1996 (319 funding)
- Watershed Stewardship Act of 1999
- CVMP liaison within Department
- CVMP partnering with agency programs
- CVMP partnering with volunteers and service providers
Program Benefits

State:

• Manpower in a time of decreasing staff

• Volunteers provide eyes in areas not covered (83,161 mi)

• Lasting partnerships
Program Benefits

Volunteers:

• Leaving a legacy for others

• Helping to reach goals, protect resources

• Access to equipment / expertise
Lessons Learned

• Have clear goals in mind – what will happen to data?

• Make sure volunteers know what is expected of them

• Some volunteers like “cookbook” approach, others want to design projects
Volunteer Monitoring Makes a Difference

- Identifies and solves problems locally
- Involves people in real science
- Raises awareness
- Creates an informed constituency that knows the powers and limitations of science