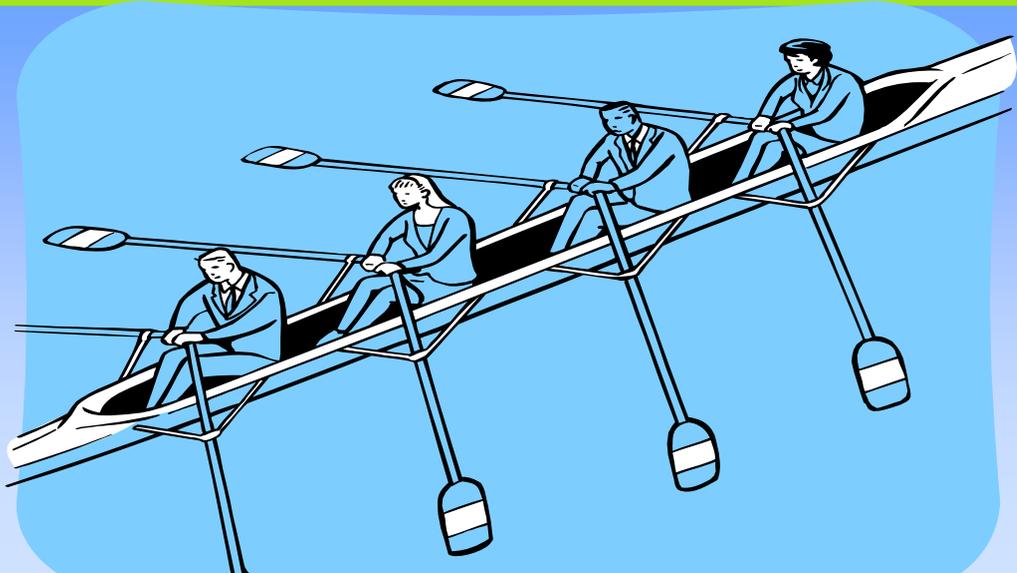
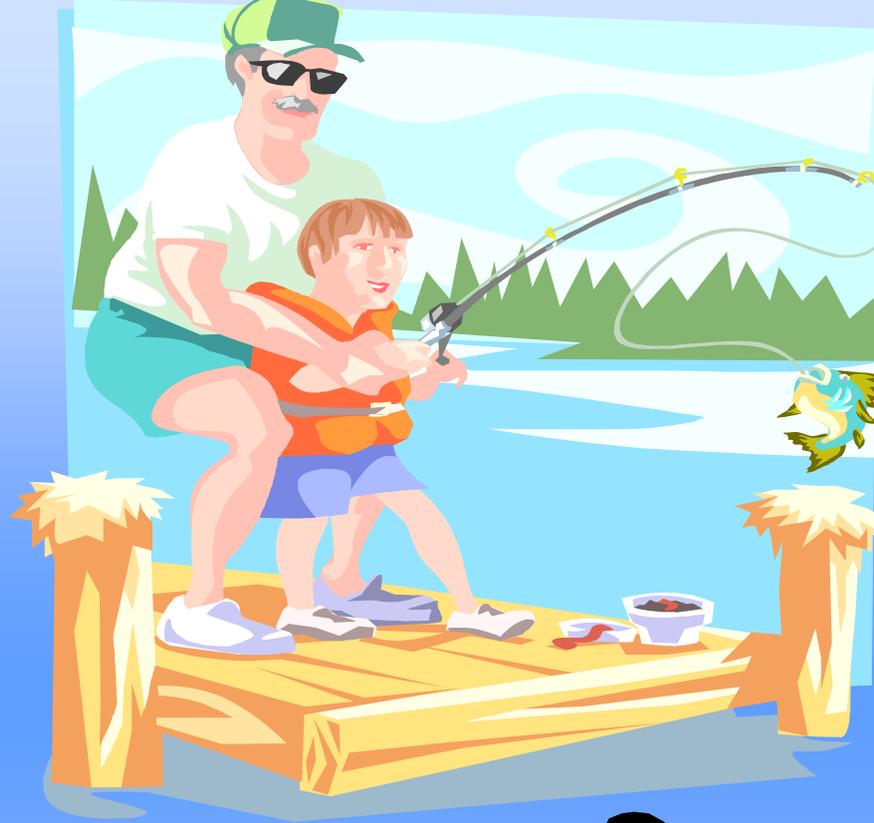
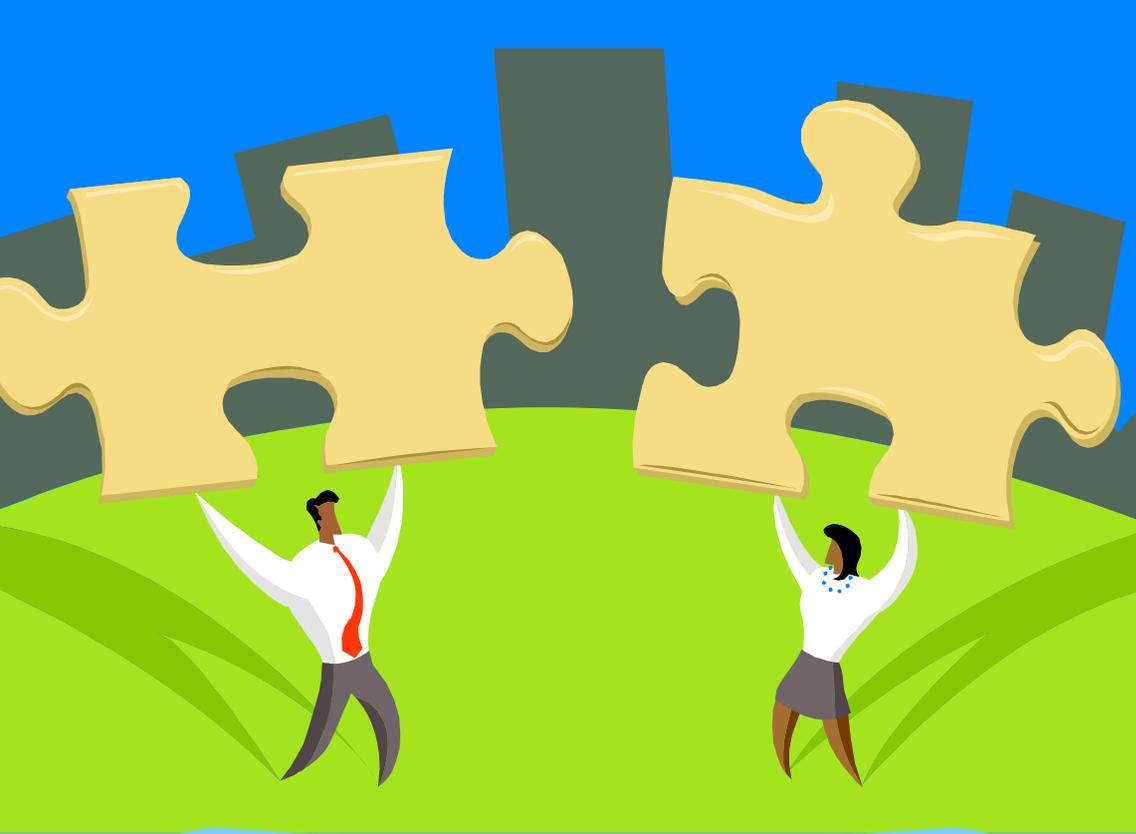
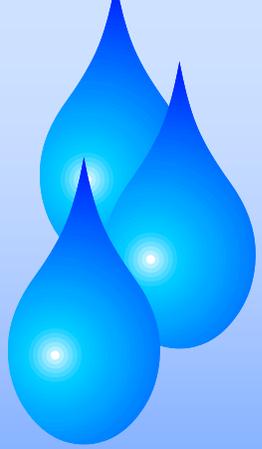


Volunteer/State Partnerships Inspire Grassroots Action

Cheryl Snyder

**Pennsylvania Department of
Environmental Protection**





Volunteer Monitoring

Watershed Associations

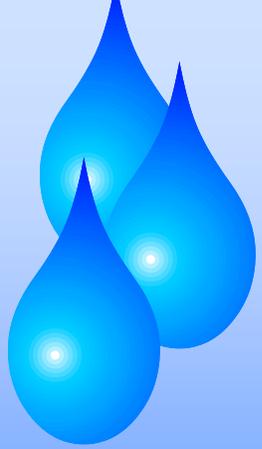
Senior Environment Corps

Lake Associations

School Groups







Citizens' Volunteer Monitoring Program (CVMP)

Goals

Help citizens know their water resources better

Show that volunteers collect quality data

Act as a liaison between volunteers, service providers and DEP

Activities

Technical assistance and guidance

Watershed Snapshot

Monitoring projects

Workshops and conferences



Bacteriological Monitoring Project

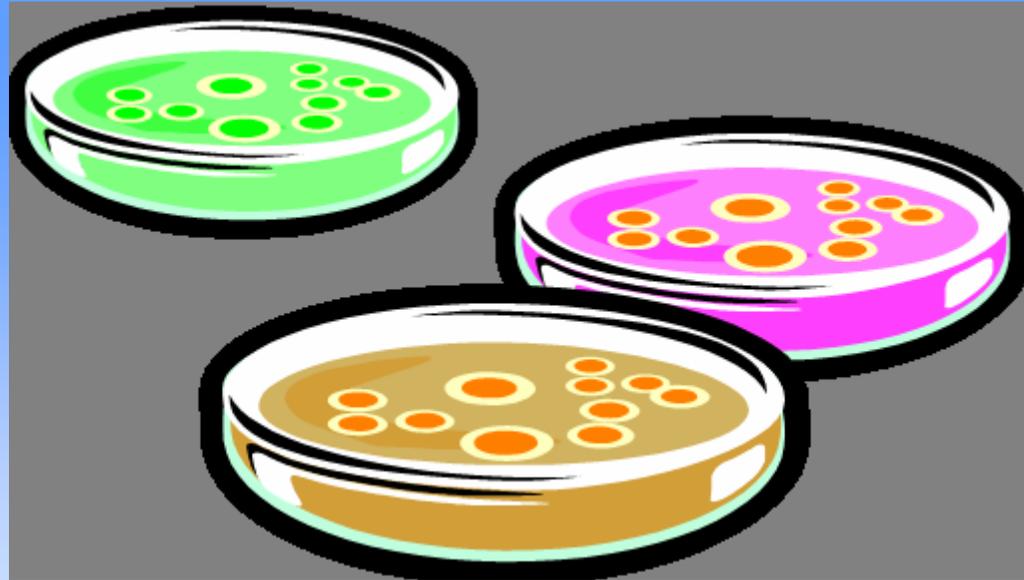
Partnership between
Assessments and
Standards, CVMP,
volunteers

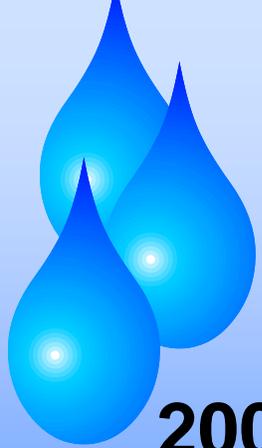
400 stream segments

- 2 sites per segment
- 2 thirty day periods – 5 grabs

Bacterial indicators

- Fecal coliforms
- *E. Coli*
- *Enterococci*





Bacteriological Monitoring Project

2001 - Philadelphia Senior Environment Corps and DEP pilot

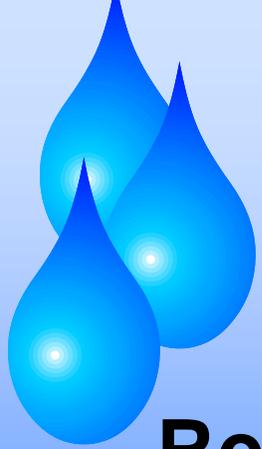
2002 - Five volunteer groups

2003 - Seven volunteer groups

2004 – Three volunteer groups

2005 - Volunteer screening



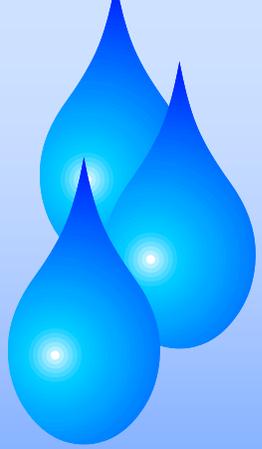


Bacteriological Monitoring Project

Results:

Philadelphia Water Authority working cooperatively with Philadelphia Senior Environment Corps to identify leaking sewer lines

Chester-Ridley-Crum Watersheds Association working with Upper Chester Creek Partnership to find and address problems



Philadelphia Senior Environment Corps

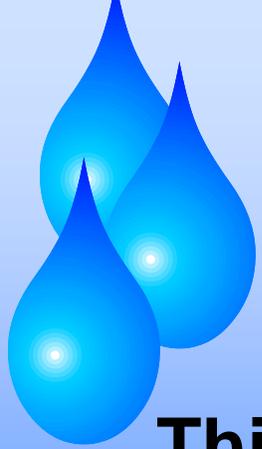
Found extensive bacterial contamination

Partnered with local college

Philadelphia Water Department

**Philadelphia PBS station documentary –
"Knee Deep"**





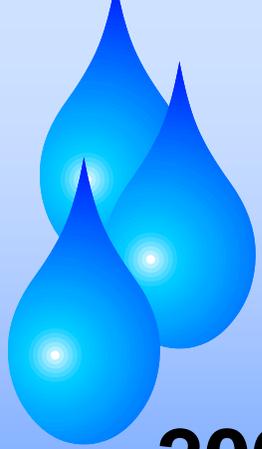
Chester-Ridley-Crum Watersheds Association

**Thirteen sites sampled 2003/2004 in Goose Creek
(trib to Chester Creek)**

Concurrent sampling with West Chester (1 site)

**Results -high bacteria counts- presented to
Partnership municipalities**

**Leads to dog waste pickup regulations at parks and
follow-up investigations to find other sources**



Department Data Use

2003 – Assessment and Standards uses data:

“We’re using some of the bacteriological data on the next 305(b)/303(d) list.”

“The following streams will show segments impaired for recreational uses.....UNT to Wissahickon Creek.....Brush Creek.....”



2006 Bacteria Model / Monitoring Plan Project

Allegheny County – Pittsburgh

**Combined sewer / storm sewer overflows
High bacteria counts**

**Partners: USEPA, PADEP, Tetra Tech,
Allegheny County Health Dept, Allegheny
County Sanitation, 3 Rivers Wet Weather,
Pine Creek Watershed Association**



2006 Bacteria Model / Monitoring Plan Project

Develop monitoring system to:

determine if meeting water quality standards

support modeling

support TMDLs

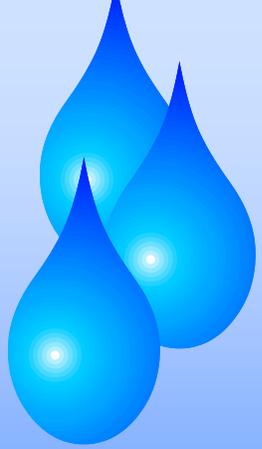
Also:

review pilot watershed data (Pine Creek)

develop monitoring program for volunteers

develop QAPP template

Program Benefits through Partnering



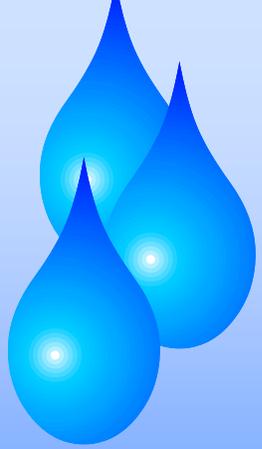
State:

Manpower in a time of decreasing staff

Volunteers provide eyes in areas not covered (86,000 mi)

Lasting partnerships





Program Benefits through Partnering

Volunteers:

Leave a legacy for others

**Help to reach goals,
protect resources**

**Access to equipment /
expertise**





Volunteers – An Untapped Resource

