

Volunteer Water Quality Monitoring



A CSREES National Facilitation Project

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Who We Are...

✓ University of Rhode Island Cooperative Extension

❖ Watershed Watch Program

- Entering 14th year
 - 250 active volunteers statewide annually
 - Lakes, streams, estuaries and coastal waters
- Active nationally and regionally

✓ University of Wisconsin Extension

❖ Water Action Volunteers

- Entering 6th year
 - 1800 river cleanup volunteers annually
 - 1000 storm drain stenciling volunteers annually
- Resource for service and monitoring projects statewide





**A
Brief
History
of
Volunteer
Environmental
Monitoring**

Volunteer Monitoring Programs Make A Difference

- ✓ Identify & solve problems locally
- ✓ Involve people in real science
- ✓ Raise awareness
- ✓ Provide information on places where no one else is looking
- ✓ Create an informed constituency
- ✓ Promote individual actions for water quality protection

1995 Assessment of Extension Volunteer Water Quality Monitoring

19 States

29 Programs

8,600 Trained Volunteers

Monitoring 1,700 Lakes, Streams and Estuaries

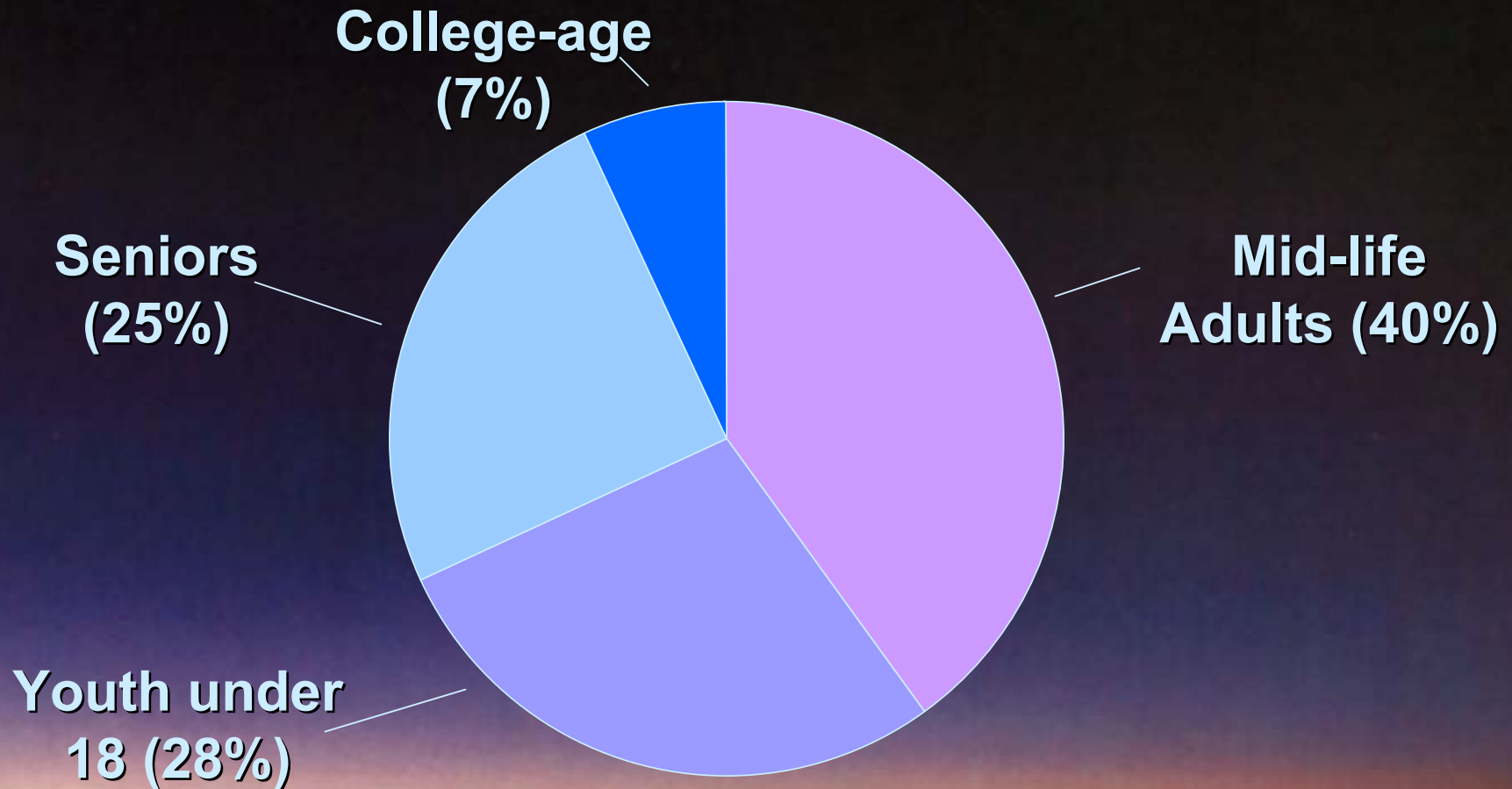
22,000 Wells: Rural, Suburban and Urban Areas

514,000 Hours of Volunteer Time per year

\$6,600,000 Contribution of Services per year

Who Were These Volunteers?

1995 Assessment Results



Extension Volunteer Monitoring Programs:



- Unique capacity to educate and motivate citizens for water quality protection
- Involve a broad spectrum of the community
- Enable communities to make informed decisions
- Have a multiplier effect

Volunteer Monitoring Works for Extension



- Create two-way communication between Extension and the public
- Heighten visibility and credibility of Extension education programs
- Recruits for other Extension programs
- Help build strong community partnerships



Enhancing the Capacity of CSREES Volunteer Monitoring Efforts


Building a Comprehensive Support System

Facilitation Project Goals

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- ✓ Improve communication
- ✓ Develop templates and materials
- ✓ Expand opportunities
- ✓ Strengthen partnerships

Project Objectives



- Identify current Extension programs
- Develop multi-media training materials
- Offer training programs
- Develop and establish internet and web-based tools
- Increase collaboration and cooperation

Identify Extension Volunteer Monitoring Programs

- ❖ Form a national project steering committee
 - To assist with developing a networking strategy
 - To develop criteria for model program designation
- ❖ Update the 1995 assessment information
- ❖ Establish an interactive web-site and electronic list serve

Develop and Implement Training Materials and Programs

- *Guide for Growing CSREES Volunteer Monitoring Programs*
 - ❖ Based on case studies of model programs
 - ❖ Modular format to ensure timeliness
 - ❖ Available in hardcopy and electronic formats
- Training sessions offered through regional CRSEES conferences and other venues

Guidebook Modules



- ✓ Types of monitoring activities available
- ✓ Effective training techniques
- ✓ Quality assurance issues
- ✓ Successful approaches to overcoming barriers to local data sharing and networking
- ✓ Volunteer management and support ideas
- ✓ Outreach tools
- ✓ Fund raising

Templates for Data Sharing



Sampling parameters should

- ✓ be common to all monitoring groups
- ✓ be easy to measure
- ✓ well-represent stream health over time

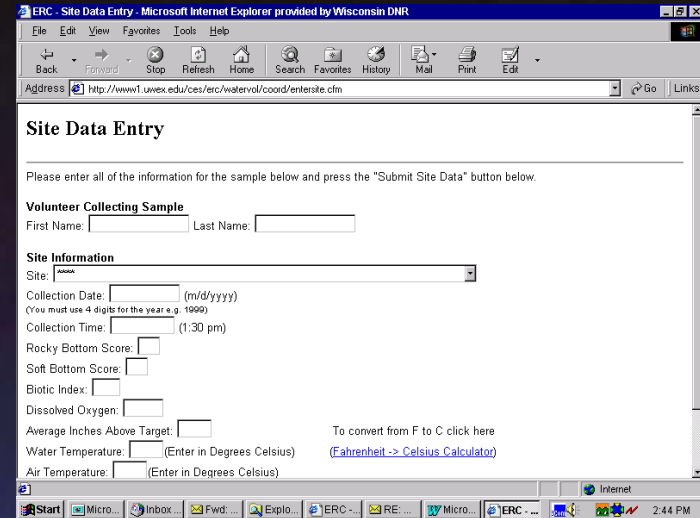
Equipment should

- ✓ be easily obtained
- ✓ affordable
- ✓ safe for volunteer use

Stream Monitoring Template


Example parameters:

- ✓ Dissolved Oxygen
- ✓ Habitat Assessment
- ✓ Macroinvertebrate Identification
- ✓ Temperature
- ✓ Turbidity




The screenshot shows a web browser window titled "ERC - Site Data Entry - Microsoft Internet Explorer provided by Wisconsin DNR". The address bar shows the URL: <http://www1.uwex.edu/ces/erc/waterval/food/enterite.cfm>. The page content includes a title "Site Data Entry" and a prompt: "Please enter all of the information for the sample below and press the 'Submit Site Data' button below." The form is divided into sections: "Volunteer Collecting Sample" with fields for "First Name:" and "Last Name:"; "Site Information" with a "Site:" dropdown menu; "Collection Date:" (m/d/yyyy) with a note "(You must use 4 digits for the year e.g. 1999)"; "Collection Time:" (1:30 pm); "Rocky Bottom Score:" with a checkbox; "Soft Bottom Score:" with a checkbox; "Biotic Index:" with a text input; "Dissolved Oxygen:" with a text input; "Average Inches Above Target:" with a text input; "Water Temperature:" (Enter in Degrees Celsius) with a text input and a link "(Fahrenheit -> Celsius Calculator)"; and "Air Temperature:" (Enter in Degrees Celsius) with a text input. The Windows taskbar at the bottom shows the Start button and several open applications including Micro, Inbox, Fwd, Explo, ERC, RE, Micro, and ERC, with the system clock showing 2:44 PM.

Data System Features



- ✓ Internet-based
- ✓ Database as opposed to spreadsheet
- ✓ Data compatibility
 - ❖ PC and Mac software
 - ❖ US EPA STORET
 - ❖ GIS

Project Outputs:



- ❖ Training materials in hard copy and electronic formats
- ❖ Data management and sharing tools
- ❖ Training programs offered through regional and state contacts
- ❖ Web site to improve communication and awareness within CSREES and with other agencies and partners

Next Steps . . .



- ❖ Select project steering committee
- ❖ Identify local and regional contacts
- ❖ Identify CSREES volunteer monitoring programs nationwide
- ❖ Nominate exemplary extension volunteer monitoring programs as models for case studies

**We look forward to
working with you!**

