

From the Trenches - Tips and Tools for Better Presentations

University of Rhode Island

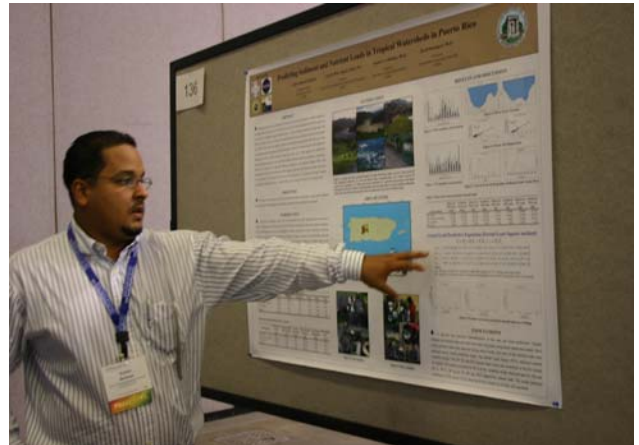
University of Wisconsin

Elizabeth Herron, Kris Stepenuck, and Linda Green

Using Data to Tell the Story

Stimulating community interest and action to protect and improve water resources is a goal of many volunteer water monitoring programs. By its very nature, water quality monitoring data is complex, encompassing multiple sites over long periods of time, under variable weather conditions. Thus, monitoring programs often spend a significant amount of time and effort helping decision makers, stakeholders and the general public to better understand the condition of local waterbodies based on volunteer-generated data. Presenting complex water quality information in an effective, relevant way is essential for their success.

Seasoned volunteer monitoring programs have been addressing this challenge for over 30 years, while others are just getting their feet wet, bringing a fresh perspective. Collectively, they have a vast breadth of knowledge about developing and presenting data effectively and have created numerous resources which serve as examples to others. The Volunteer Monitor Newsletter (Volume 7(1), Spring 1995) (<http://www.epa.gov/owow/monitoring/volunteer/newsletter/volmon07no1.pdf>) focused on “Managing and Presenting Your Data” and categorized these data presentation tools into several categories. Building upon that resource, this guidebook module delineates these tools and materials into seven categories. For each, specific examples and tips are provided from volunteer monitoring colleagues based on both their successes and their debacles with effective data presentation. This module includes a compilation of presentation resources assembled by Jo Latimore (Michigan Clean Water Corps), the New England Volunteer Monitoring Focus Area and from volunteer monitoring listserv discussions.



A Quick Overview

Researchers have discovered that most of us are more likely to remember something if there are both visual and audio components. Thus presentations need to combine those elements in appealing and relevant ways in order to be most effective. The University of Kansas Medical Center has created an excellent on-line tutorial series, with extensive links to other resources for helping to create effective presentations (<http://www.kumc.edu/SAH/OTEd/jradel/effective.html>) is a good place to get started.

This is the tenth in a series of factsheet modules which comprise the **Guide for Growing Extension Volunteer Monitoring Programs**, part of the *National Facilitation of Volunteer Monitoring Efforts* project. Funded through the USDA National Institute of Food and Agriculture, the purpose is to build a comprehensive support system for Extension volunteer water quality monitoring efforts nationally. The goal is to expand and strengthen the capacity of existing volunteer monitoring programs and support development of new groups. See <http://www.usawaterquality.org/volunteer/> for more information.

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Posters and Displays

Volunteer monitoring data are most effective when used and understood locally - but it's sometimes difficult to reach local stakeholders through newspaper articles or community meetings alone. Creating effective posters and displays that can be set-up in libraries, town halls, at community events and, or at parks or marinas can be an effective way of reaching diverse resource users.

Buzzards Bay Water Quality (<http://www.savebuzzardsbay.org/Document.Doc?id=144>) This poster of the Buzzards Bay (MA) Baywatchers Program summarizes data collected from 1992 and 2005. It uses the group's "Bay Health Index" to assess the nutrient-related health of each of the Bay's major harbors and coves, and ranks health as poor/eutrophic, fair, or good to excellent.

State of the Bay Report (<http://www.savebuzzardsbay.org/Document.Doc?id=11>) This poster examines the overall condition of Buzzards Bay in a simple, but colorful and informative way.

Wet/Dry Mapping of the San Pedro River (http://www.snr.arizona.edu/nemo/review/wd_SanPedro_AllYears24x30.pdf) This University of Arizona NEMO Program poster uses maps, pie charts and color coding to show data results of percent wet and dry periods in the San Pedro River over an eight year period.

Assessing Stream Health: Stream Bugs Tell the Story (<http://www.usawaterquality.org/volunteer/Special/EPAListserv/Clallum/BIBIV3halfsize.JPG>) This poster, developed by Ed Chadd and Adar Feller with Streamkeepers of Clallam County (WA) explains the meaning of a Benthic Index of Biological Integrity (B-IBI) and why it is important. Images and color are used to clarify the Index.

Case Studies: Peabody Creek (<http://www.usawaterquality.org/volunteer/Special/EPAListserv/Clallum/Peabody.JPG>), **Bell Creek** (<http://www.usawaterquality.org/volunteer/Special/EPAListserv/Clallum/Bell.JPG>), and **Salt Creek** (<http://www.usawaterquality.org/volunteer/Special/EPAListserv/Clallum/Salt.JPG>). These posters from the Streamkeepers of Clallam County (WA) program explain watershed process concepts. They help community members to better understand how watersheds work and how they are affected by human uses of the land.

The Basics of Poster Design (<http://www.waspacegrant.org/posterdesign.html>) This site offers advice on preparing a good scientific poster. It includes hints for poster layout, content and numerous links to additional resources.

Design of Scientific Posters (<http://writing.engr.psu.edu/posters.html>) This website includes sample posters, templates for PowerPoint posters of various dimensions and links to poster websites at other universities.

Effective posters and displays always include:

- Contact information for people who want to learn more or get involved in your project
- As little text as possible, in fonts large enough that they can be read at a distance
- Attractive design, including suitable photos and charts, organized to tell the "story" effectively

Oral/PowerPoint Presentations/ Slideshows

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Reaching out to volunteers, watershed associations, community boards and other interested groups often means speaking at a meeting or conference. Visual aids such as slide shows or PowerPoint presentations help to maintain interest, and can be an effective means of presenting complex information. There are many resources to help you create appealing and informative presentations, including:

Presenting Your Monitoring Data (http://www.micorps.net/documents/latimore_data07.pdf). This slide show by Jo Latimore of Michigan Clean Water Corps explains how to present monitoring data to various audiences and use the information to retain volunteers and educate community members.

Optimization of a Large-scale Water Quality Monitoring Network (http://acwi.gov/monitoring/ppt/durham0706/nwqmc_nhmeeting_pmb.ppt). Developed for a meeting of the National Water Quality Monitoring Council, it includes a description of the statistical methods used and the rationale for selection of those methods for interpreting monitoring data from a number of sources.

Effective Data Presentation - Making Figures and Tables (www.utsa.edu/mbrs/resources/lectures/tblfigs082006.ppt). Provides detailed information on what should and shouldn't be included in tables and figures in order to make them quickly and easily understandable.

Section VI: Bringing RAP [Rapid Assessment Procedures] to the decision-making realm: Effective communication and use (<http://archive.unu.edu/unupress/food2/UIN08E/UIN08E17.HTM>.) Another public health focused resource; the presentations on this website apply communication principles to effective dissemination of results from research.

Common Mistakes in Data Presentation (http://www.perceptualedge.com/articles/ie/data_presentation.pdf) Steven Few, a data presentation consultant, reviews some ideas for helping to better communicate data.

Creating and Effective Conference Presentation (<http://www.kon.org/karlin.html>) This online guide provides basic guidelines for creating effective posters and presentation.

Advice on designing scientific posters:

<http://www.swarthmore.edu/NatSci/cpurin1/posteradvice.htm>.



Maps, graphs, and databases

Well designed maps and graphs are excellent visual tools for presenting complex monitoring data and for galvanizing public interest and support. Showing people what and where problems are within their community is a powerful way of capturing their attention. A variety of tools are available to help organizations to analyze and present data visually.

Recognizing that local watershed groups may not have full Geographic Information System capabilities, USEPA Region 5 developed "Data to Maps" (D2M). This custom Excel application allows users to overlay sampling data on static maps and do preliminary assessment and analyses (<https://sites.google.com/site/data2maps/>). D2M is best suited to projects with pre-determined and limited (less than 15) sampling sites, and does require some initial set-up by an advanced Excel user.

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Maps, graphs, and databases (continued)

Massachusetts Water Watch Partnership (<http://www.umass.edu/tei/mwwp/librarybytopic.html#data>) has links to data presentation manuals and to utilities to help organize and graph chemical and macroinvertebrate data. A macroinvertebrate utility also includes automatic calculation of statistical summaries of a data set. Each utility has a guidance document that will step you through the process of entering data and creating different styles of graphs.

A number of programs have developed online databases, some of which are linked to maps or which have mapping capabilities, to store, retrieve and present volunteer-generated data. An extensive list of these databases is included in our factsheet module called "Planning Your Program's Data Management System" (<http://www.usawaterquality.org/volunteer/pdf/GuideBook/DatabasesIX.pdf>).

Examples include:

The Buzzards Bay Baywatchers Program (<http://savebuzzardsbay.org/baywatchers/>). An attractive, easy to use website that integrates interactive mapping capabilities, monitoring site photos, maps and graphed data results.

Loudoun Watershed Watch (<http://www.loudounwatershedwatch.org>). Downloadable Excel files that summarize benthic and bacteria monitoring data are featured. Excel charts include quality rating for each site, along with interactive macroinvertebrate mapping : (http://www.loudounwatershedwatch.org/site_map_hover.htm).

MiCorps, Michigan's Clean Water Corps (<http://www.micorps.net/data/view/search/>). This program maintains an online database accessible for searching or entering data for both lakes and streams.

Wisconsin's Water Action Volunteers Stream Monitoring Program Database (<http://www.uwex.edu/erc/wavdb/>). This site includes graphing capabilities comparing a site's results over time or to compare results between multiple monitoring locations.

Stream Health According to Biological Indicators (<http://www.usawaterquality.org/volunteer/Special/EPAListserv/Clallum/bugratings98to06.JPG>). This map from Streamkeepers of Clallum County (WA) uses a five category stream health rating based on biological data .

Alabama Water Watch online database (<https://fp.auburn.edu/icaae/index.aspx>) has real - time graphing of some results, and static maps and charts for other parameters.

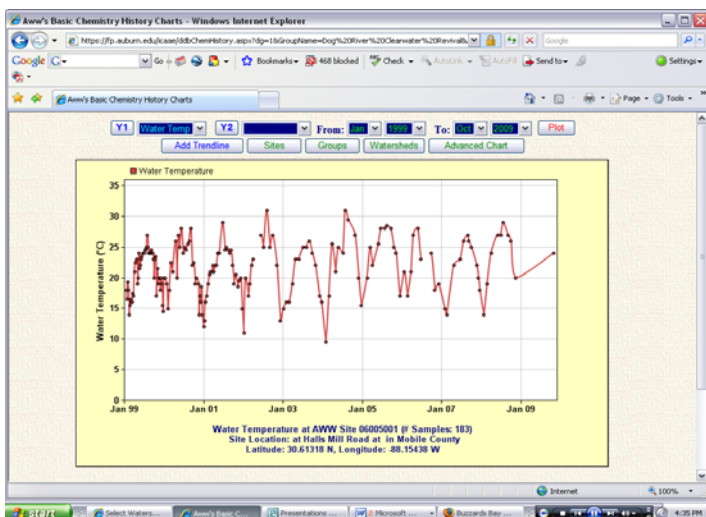
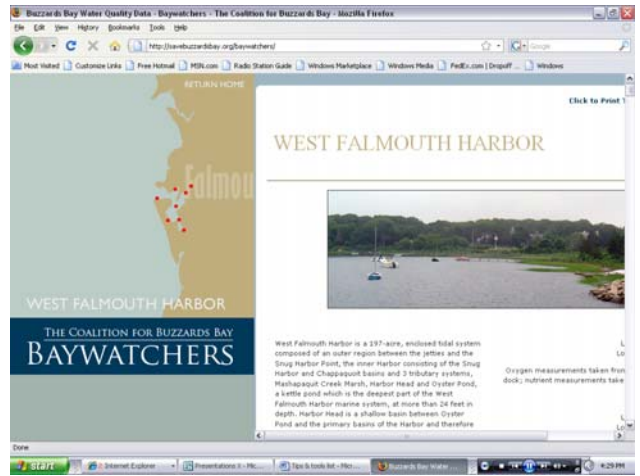
Photo credits:

Ann Reid - page 1 and middle photo page 8

Art Garceau - page 3

North Carolina Watershed Watch - top photo page 8

Elizabeth Herron - bottom photo page 8



Reports

Annual reports are a valuable data presentation tool. Not only can these reports be provided to volunteers, community members and other stakeholders, but they can be used to support oral results presentations made by volunteer monitoring program staff or volunteers. Most programs prepare reports to provide to volunteers, some of these are linked from here:

The Charles River Watershed Association (MA) annual reports, color-coded maps, parameter explanations and site descriptions (http://www.crwa.org/water_quality/monthly/monthly.html)

Minnesota Pollution Control Agency Citizen Stream-Monitoring Program single page data summaries (<http://www.pca.state.mn.us/water/csmp-reports.html#reports>)

Lakes of Missouri Volunteer Program annual report (<http://www.lmvp.org/Data/2006/index.htm>)

Friends of the Rouge (MI) winter stonefly search results (<http://www.therouge.org/index.php%3Fid=687847.html>)

The Huron River Watershed Council (MI) annual reports (<http://www.hrwc.org/publications/annual-reports/>)

MiCorps: Michigan's Clean Water Corps annual lake reports (<http://www.micorps.net/lakereports.html>)

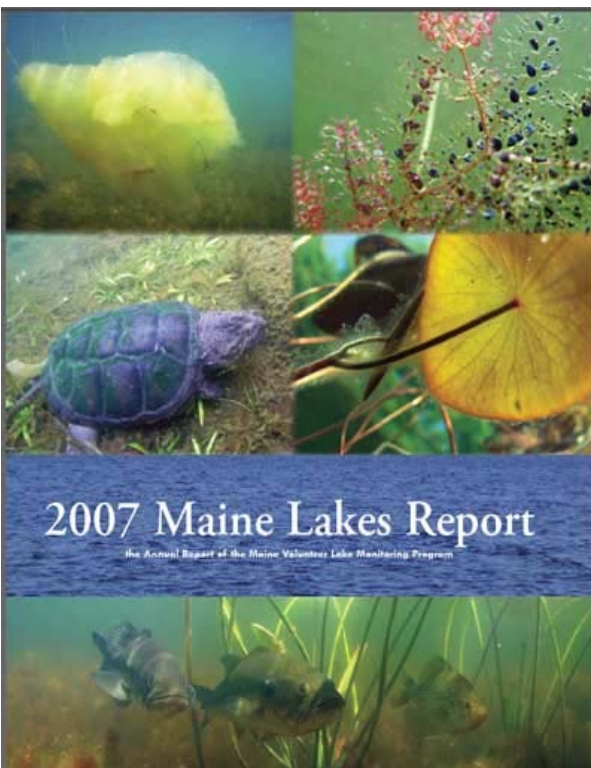
Russian River (CA) First Flush Stormwater Monitoring Summary Report (http://www.waterboards.ca.gov/water_issues/programs/tmdl/records/region_1/2004/ref60.pdf)

Streamkeepers of Clallum County's State of the Waters of Clallum County, 2004 (http://www.clallam.net/streamkeepers/html/state_of_the_waters.htm). This report uses all available data, and includes details implications for humans and wildlife, categorical water quality ratings, maps, photos, and recommendations for protecting/improving water quality

University of Delaware Citizen Monitoring Program (<http://citizen-monitoring.udel.edu/reports.shtml>)

Wisconsin's Citizen-based Water Monitoring Stream Program - Level 2 (<http://watermonitoring.uwex.edu/level2/stream.html>)

Wisconsin's Citizen Lakes Monitoring Network (<http://dnr.wi.gov/lakes/clmn/>)



Maine Volunteer Lake Monitoring Program Annual Report (<http://www.mainevolunteerlakemonitors.org/publications/>) The Maine Lakes Report includes an overview of lake water quality and invasive aquatic plants.

Rather than have staff-produced reports, a few programs, such as the Blue Thumb Program in Oklahoma and the Alliance for Aquatic Resource Monitoring (ALLARM) in Pennsylvania, have opted to instruct their volunteers how to analyze their own data and to prepare data summary reports of relevance to their local communities themselves. Many of the Blue Thumb reports are available at (http://www.ok.gov/okcc/Agency_Divisions/Water_Quality_Division/WQ_Blue_Thumb/BT_Volunteer_Monitoring_/BT_Data_Interpretations/). More information about the ALLARM program is available at: (<http://www.dickinson.edu/about/sustainability/allarm/content/About-ALLARM/>).

Metrics are a means of quantitatively measuring otherwise qualitative phenomena, like water quality. A water quality index is a means of summarizing large amounts of water quality data or metrics into simple terms (e.g., good, fair, poor) for reporting to management and the public in a consistent manner. Jerry Schoen from the New England Volunteer Monitoring Focus Area's Massachusetts Water Watch Partnership developed a list of references for developing metrics and indices to help make sense of water quality data that are collected. We've added a few to that list.

Measuring Biological Condition, Protecting Biological Integrity by James R. Karr, University of Washington, Seattle. From Principles of Conservation Biology. 3rd Edition. Bloom, Meffe and Carroll. 2006

Multimetric Indices to Prepare and Analyze Data (<http://www.epa.gov/bioindicators/html/multimetric.html>) This EPA site includes five steps describing the importance of biological indices.

Methods for Evaluating Wetland Condition: Developing Metrics and Indices of Biological Integrity (<http://water.epa.gov/scitech/swguidance/standards/criteria/nutrients/wetlands/index.cfm#modules>) – USEPA. 2002. Office of Water, U.S. Environmental Protection Agency, Washington, DC. EPA-822-R-02-016 Major contributors to this report include Natural Resources Conservation Service, Wetland Science Institute, Billy M. Teels; Oregon State University, Paul Adamus.

Four Phases for Evaluating Indicators (http://www.epa.gov/bioindicators/html/review_and_documentation.html)

Evaluation Guidelines For Ecological Indicators (http://www.epa.gov/emap/html/pubs/docs/resdocs/ecol_ind.pdf) EPA 2000. Laura E. Jackson, Janis C. Kurtz, William S. Fisher

Development of a Biological Index and Classification System for Wisconsin Wetlands Using Macroinvertebrates and Plants. Final Report to EPA Region V, Wetland Grant#CD985491-01-0. January 2000. Richard Lillie, Wisconsin DNR. (<http://dnr.wi.gov/wetlands/documents/WetlandBioIndexInvertebratesPlantsText.pdf>)

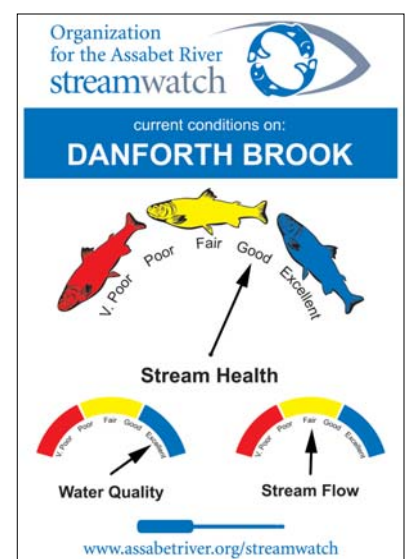
River and Stream Monitoring Water Quality Index – (http://www.ecy.wa.gov/programs/eap/fw_riv/docs/WQIOverview.html) Washington State Department of Ecology site includes a general discussion of the use and development of its water quality indices and has links to a spreadsheet template for calculating an index.

Interpretation and Communication of Water Quality Data Using the Oregon Water Quality Index (<http://www.deq.state.or.us/lab/wqm/wqindex.htm>, and <http://www.deq.state.or.us/lab/wqm/wqimain.htm>)

The Secchi Dip In Web Site (<http://www.secchidipin.org/methods.htm>) Links to information on the Trophic State Index (TSI) and other indices.

Bay Health Index - Coalition for Buzzards Bay (<http://www.savebuzzardsbay.org/page.aspx?pid=2553>) An index that measures the nutrient-related health of the bay. It is calculated from the scores of mean summer water clarity, chlorophyll, nitrogen and the lowest 20% of dissolved oxygen levels.

Stream Health Index - Organization for the Assabet River (<http://www.oars3rivers.org/our-work/monitoring/interpret-data/stream-health-index>) The index is designed to compare current conditions with ideal summer stream flow, water quality and habitat conditions for indicator fish at the sampling site in each stream.



Guidance Materials

There are many resources for helping with the organization and presentation of monitoring results. They focus on important topics related to making the best possible presentation. These include:

Ready, Set, Present! (<http://www.umass.edu/tei/mwwp/datapresmanual.html>) Massachusetts Water Watch Partnership (MWWP) data presentation manual provides advice on data presentation including layout, graphs, charts, maps, oral presentations, and interactive displays

The Volunteer Monitor Newsletter (<http://www.epa.gov/owow/monitoring/volunteer/newsletter/volmon07no1.pdf>) Volume 7(1): Spring 1995, Managing and Presenting Your Data; (<http://www.epa.gov/owow/monitoring/volunteer/newsletter/volmon06no2.pdf>) Volume 6(2): Fall 1994 Displaying Secchi Data; and (<http://www.epa.gov/owow/monitoring/volunteer/newsletter/volmon17no1.pdf>) Volume 17(1): Winter 2005, Data Documentation and Interpretation

Eleanor Ely's "Writing to Be Read" workshop (<http://writingtoberead.wordpress.com>) designed to provide guidance to environmental professionals for successful writing and presentations

Water Words That Work (<http://waterwordsthatwork.com/>) a web blog to help improve environmentalists' writing and speaking skills so they can better take action to protect and improve natural resources

Data Interpretation Manual for Volunteer Monitors – (www.umass.edu/tei/mwwp/acrobat/data%20interp%202002.pdf) MWWP manual focused on data interpretation issues typically confronted by lake monitoring groups, but it has some use for stream, wetland and coastal monitors

Illustrating Your Data (<http://imrl.usu.edu/Water/topic20/yourdata.htm>) Materials from a University of Utah-developed workshop. Questions to ask to help decide which form(s) of data illustration best suits your purpose, including suggested chart and graph types

USEPA Estuarine Monitoring Manual – Chapter 8: Data Management, Interpretation and Presentation (<http://www.epa.gov/nep/monitor/documents/chap8.pdf>) Provides an overview of how to handle monitoring data effectively – from managing to presenting

Lake Monitoring - Presenting Monitoring Results – (<http://www.waterquality.de/hartmut.willmitzer/RESULTS.HTM>) This comprehensive website, based in Germany but with English versions of its pages, provides a wealth of information on water issues, including an extensive overview of presenting lake water quality data.

Unit VI: Module 27 - Educating Decision Makers: Introduction and Presentation Skills – (http://waterontheweb.org/curricula/ws/unit_06/U6mod27.html) Water on the Web (WOW) helps college and high school students understand and solve real-world environmental problems using advanced technology. WOW contains two sets of curricula, data from lakes and rivers nationwide, extensive online primers, data interpretation and Geographic Information System Tools, and support aids

Charting in Microsoft Excel – (<http://peltiertech.com/Excel/Charts/index.html>) provides tutorials on formatting Excel charts, including customized or charts not already included in Excel chart types. Examples help guide you in chart selection, and step-by-step directions make it easy to get started

Making Data Meaningful: A guide to writing stories about numbers, How to write a statistical story (http://www.unece.org/stats/documents/writing/MDM_Part1_English.pdf) provides some concepts for helping present data in terms of issues or themes, rather than simple descriptions of data

Connecting People to Useful Information guidelines for effective data presentations (www.measuredhs.com/pubs/pdf/OD41/OD41LG.pdf) provides practical techniques on how to organize and deliver effective presentations and organize a successful data dissemination seminar

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Presentation Tip: Making Statistics Understandable:

<http://entrepreneurs.about.com/cs/marketing/a/presentingstats.htm>

With links to multiple related articles including:

- 7 Deadly Sins of PowerPoint Presentation
- Stop the Verbal Spam
- Missing Link: Communicating Your Message
- Basic Concepts in Statistics
- Presenting Data Effectively
- Supporting Your Points
- Top 7 Strategies to Deliver Great Presentations
- Giving Effective PowerPoint Presentations
- Top 10 Presentation Mistakes
- 8 Secrets to a Knockout Business Presentation
- PowerPoint Lesson Plan - Types of Clouds



Other Resources:

Tips for Presentation Handouts (<http://www.linguistics.ucsb.edu/faculty/bucholtz/sociocultural/handouttips.html>)

The Extreme Presentation(tm) Blog (<http://extremepresentation.typepad.com/blog/>) provides ideas and links to foster "Extremely effective communication of complex information"

Water Quality Signs (<http://www.savebuzzardsbay.org/page.aspx?pid=2631>) Buzzards Bay Baywatchers Water Quality Monitoring Program (MA) developed signs which show results of water monitoring at 127 beaches, bridges, and boat ramps

Data Summary Brochures (<http://watermonitoring.uwex.edu/wav/monitoring/databaseResults.html> select "past reports") – Wisconsin's Water Action Volunteers Program produced data summary brochures as a succinct way of sharing data results with citizen monitors and community members.

Expert Color Choices for Presenting Data (<http://www.stonesc.com/pubs/Expert%20Color%20Choices.pdf>) provides an overview of the principles of color selection to help enhance and clarify visual presentations (including PowerPoints, posters, maps and brochures)

Idée Labs Multicolour Search Lab (<http://labs.ideeinc.com/multicolr/>) allows you to select images from Alamy Stock Photos and/or Flickr sets based on preferred colors

Color Palette Generator (<http://www.degraeve.com/color-palette/>) allows you to enter the URL of an image to get a color palette that matches the image. This is useful for coming up with a website, poster or presentation color palette that matches a key image you want to work with

Best Visual Presentation – Observations from the Award Committee (<http://www.airweb.org/images/irapps4.pdf> - 62k) highlights examples of effective presentation techniques while explaining why they work

Tips

The experience of preparing and presenting data results can lead to stories of success or to accounts of misfortune and words of caution. When passed along to others, these stories and accounts can help minimize future data presentation fiascos. The following tips were shared with that intention by Ed Chadd and Adar Feller from the Streamkeepers of Clallam County (WA).

- Think of data presentations as a story. Start out by saying, "What's the story of this creek? What's the story we're trying to tell?" So we started with watershed-assessment documents, plus what we collectively knew about the creeks. Then we looked at the data and whether it supported the story. Then we decided which data to focus on and how to present it. In the process, we certainly became familiar with our data gaps! The basic elements of an education/outreach activity are:
 - a. A message
 - b. An audience
 - c. A delivery mechanism
- It's okay to present something that's not conclusive and say that it's not conclusive. That's science.
- Colored dots on maps are good, but too many maps can be overwhelming in a display.
- You can probably present one or two other concepts along with a basic dot on a map. See Monitoring Sites in Clallum County's Water Resource Database map as an example (<http://www.usawaterquality.org/volunteer/Special/EPAListserv/Clallum/ccwrsk.JPG>). Monitoring sites, client sponsorship of the sites, and restoration project monitoring are all shown on the map.
- Figure out when you need to be comprehensive, and when you should just focus on a few salient data findings.
- Multiple presentational graphics are good: Try integrating text, maps, photos, charts, tables, and graphs.
- Photos are important, so that people can see what the landscape impacts look like, then look at what the data tells about the results of those impacts.
- Headings and subheadings are critical. Get across whatever basic message you want to convey in the big letters, so that someone just passing by the booth will at least see those important points (and hopefully be drawn in enough to want to take a closer look)!
- Callout text of various types really helps make graphs meaningful.
- A good report-production team needs to have people with the following skills/knowledge: watershed ecology, the available data, statistical analysis, graphing, GIS, pedagogy, page layout, and word smithing. If you're lucky, some people will have several of these skills! We needed a basic team of 3 people to create our reports.
- The review process is critical. We showed drafts to our advisory board, our volunteer data-analysis team, and our education/outreach team. We got lots of feedback and went through many, many drafts. As frustrating as it often was, the posters just kept getting better.
- For graphs and maps, you've got to check the color-production of the printers and projectors you'll be using. We found, for example, that with our projector, our orange and yellow dots were indistinguishable, and with our plotter, one of our color orthophotos didn't show the land-cover features we were trying to show, so we had to take our poster file somewhere else to get printed.

Presentation Checklist: Adapted from <http://www.juiceanalytics.com/writing/always-simplify-never-screenbean/>

Always...

- **Tell a story.** Great presentations tell a compelling and cohesive story. Stories have themes, characters, plotlines, and a message.
- **Build a flow.** Try reading your slide headlines. Do the slides connect? Do they tell a story? Don't be afraid to shuffle your slides to find a cleaner way for the concepts to fit together.
- **Provide a roadmap.** It's easy to lose an audience if you have a complex argument or storyline. Give them signposts that let them know where they are and where they are headed.
- **Banish slides to an appendix.** If slides don't fit neatly into the story, find a home for them in the appendix; it's the "green room" of your presentation where potentially useful material can hang out until it's needed.
- **Simplify.** Your story can be simpler. Your slides can have more whitespace. Be ruthless in cutting.

More...

- **Pictures,** including full page pictures. Cliff Atkinson (<http://www.beyondbulletpoints.com/>) is a big proponent of pictures in place of words and offers a good, though extreme perspective.
- **Changes of pace.** Long, data intensive presentations easily become monotonous. Break these up with different kinds of slides, multimedia content, or audience interaction.
- **Animation in slides.** While animation can be a distraction, it does have its place. If you have a complex slide, consider building the layers of information. It forces your audience to focus on just one part at a time.
- **Quick punch lines.** It is always tempting to develop a presentation that gradually builds to an exciting conclusion. Your audience is impatient to get to the point. Provide it to them up front.

Less...

- **Words.** People use extra words to cover up when they don't know precisely what they want to say. Enough said.
- **Bullets.** A list with more than five bullets is beyond most people's ability to process or remember. Long lists can be broken into subgroups.
- **Bullet-points.** For short, simple lists, remove the bullet points.
- **Stock clipart:** Avoid stock clipart as much as possible - it is mostly useless filler.
- **Animation between slides.** Animation between slides is simply a distraction.
- **Capitalization.** There are rules (<http://owl.english.purdue.edu/owl/resource/592/01/>) for when to capitalize.

CONTACTS

Linda Green

Phone: 401-874-2905, lgreen@uri.edu

Elizabeth Herron

Phone: 401-874-4552, emh@uri.edu

Arthur Gold

Phone: 401-874-2903, agold@uri.edu

University of Rhode Island Cooperative Extension

Coastal Institute in Kingston, Rm 105

Kingston, RI 02881

Kris Stepenuck

Phone: 608-265-3887, kris.stepenuck@ces.uwex.edu

Robin Shepard

Phone: 608-890-2688, robin.shepard@ces.uwex.edu

University of Wisconsin Extension Service

445 Henry Mall, Room 202

Madison WI 53706

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