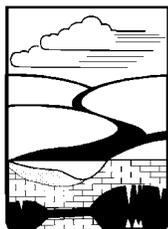


FINAL REPORT
NOVEMBER 2003



Solving the Watershed Puzzle
Kentucky Watershed Roundtable

August 19-20, 2003 — Lexington, Kentucky



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Acknowledgments

In August 2003 the Kentucky Division of Water and the Kentucky Waterways Alliance convened the first Kentucky Watershed Roundtable. The event culminated effort and commitment by a diverse and dedicated group of individuals and organizations. We thank the following members of the planning committee:

Planning Committee

Hugh Archer, KY Dept. for Natural Resources

Mark Ayers, US Geological Survey

Bob Bauer, KY Forest Industries Association

Don Becker, Tennessee Valley Authority

Lee Colten, KY Division of Water

Jerry Deaton, KY League of Cities

Kori Jones, KY Farm Bureau

Jim Kipp, UK, Water Research Institute

Tammy Liebenauer, UK, KY Small Business Development Center

Christine Olsenius, SE Watershed Forum

Judith Petersen, Kentucky Waterways Alliance, Inc.

Vicki Pettus, KY Infrastructure Authority

Juva Sizemore, Homebuilders Association of KY

Richard Wahrer, KY Dept. for Surface Mining Reclamation and Enforcement

Corrine Wells, KY Division of Water

Pamla Wood, KY Division of Water

Roundtable Sponsors:

- Kentucky Waterways Alliance, Inc.
- Kentucky Division of Water
- US EPA Region 4
- Tennessee Valley Authority
- US Geological Survey
- University of Kentucky Water Resources Research Institute

Overall, I think the attendance and participation demonstrated a broad grass roots commitment to watershed management in Kentucky. Now to keep up the momentum!

—Karen Schaffer, Scientist,
J.E. Edinger Associates Inc.



Lee Colten (DOW) and Judith Petersen (KWA) conference co-chairs greet Roundtable participants.

There were so many individuals and organizations that contributed to the success of this event, it will be impossible to thank them all, but we would also like to thank the facilitators and their organizations.

Roundtable Facilitators:

Jon Walker, US Forest Service
Karen Schaffer, J. E. Edinger Associates, Inc.
Vicki Pettus, KY Infrastructure Authority
Frank Sagona, Southeast Watershed Forum
Mike Griffin, USGS
Patti Grace-Jarrett, Metropolitan Sewer District
Christine Olsenius, Southeast Watershed Forum
Leslie Cole, KY Environmental Quality Commission
Mary Kathryn Dickerson, Boone, Campbell and Kenton County Conservation Districts

Networking was key! It put me in touch with key people who can help me move this issue along at the county level.

Roundtable participant...

Conference objectives:

- ◆ Raise awareness of watershed issues and resources
- ◆ Leverage resources by building trust and forging links among partners
- ◆ Provide tools to support watershed and community development



Opening plenary session of the Roundtable.

I made a great number of contacts and found out who to communicate with and go to work on all these great ideas.

Roundtable participant....



Above: Conference participants take advantage of networking opportunities.

Executive Summary

After a year of planning the first Kentucky Watershed Roundtable, it was wonderful to see the crowds fill the ballroom at the Holiday Inn North in Lexington. A total of 228 people attended some portion of the day and a half event with nearly 200 in attendance each day. A mix of local, state and federal government professionals, nonprofit and citizen groups, and individuals participated in the Roundtable sessions and discussions.

The objectives of the Kentucky Watershed Roundtable were: to raise awareness of watershed issues and resources; to leverage resources by building trust and forging links among partners; and to provide tools to support watershed and community development. Comments from the participants were very supportive and encouraging. Indeed, the evaluations showed that the objectives were on target and were achieved:

- 87% thought the Roundtable was a good chance to network with other organizations and agencies;
- 76% thought the training and workshops offered practical applications for their city, organization or watershed; and
- 96% thought the Roundtable should be an annual event!

The Roundtable blended a mix of facilitated basin breakout sessions and informational sessions on a variety of topics. A plenary session opened the Roundtable with an overview of watersheds and watershed processes. A discussion panel comprised of a variety of interest groups told the crowd why the Roundtable was important to their interests. A leadership plenary session comprised of state and federal agencies and other state leaders closed the Roundtable by listening and responding to the top concerns raised by the participants.

The luncheon speaker was Christine Olsenius, Executive Director of the Southeast Watershed Forum addressed “The Role of the State Watershed Roundtable”. Ms. Olsenius discussed the need to build a constituency for watershed protection and how Watershed Roundtables help accomplish this goal.



Participants were seated by watershed at the luncheon for additional networking opportunities.

The Southeast Watershed Forum piloted the first multi-stakeholder regional Roundtable in 1998, as part of an effort to see how local issues and concerns could be better communicated to State and Federal Agencies. This regional Forum has fostered the subsequent development of state level Roundtables in Mississippi, Tennessee, Georgia, Alabama -- and now in Kentucky. She defined Watershed Roundtables as signature events that bring together a broad representation of stakeholders in a neutral setting to foster dialogue, build partnerships and improve water protection and restoration activities. She concluded by stating, “It is good to see a great first Roundtable in Kentucky!”

A key feature of the Roundtable was a series of facilitated watershed breakout sessions. This provided participants an opportunity to express and discuss issues and actions in *their* respective watersheds. Participants met with others within their watershed, within each of seven major river basin groupings in the state: Big and Little Sandy, Four Rivers (Jackson Purchase area), Green-Tradewater, Kentucky, Licking and nearby Ohio tributaries, Salt and nearby Ohio tributaries, and Upper Cumberland watersheds.

The respective Division of Water Basin Coordinator and Kentucky Waterways Alliance Basin Delegate gave an overview of the conditions in each basin. A facilitator then guided each group with three basic questions.

1. Where can we work together: on issues or locations?
2. Who is doing what: actions and partners?
3. What do we commit to: in our organization, in our basin group, or outside this meeting?

Input from each basin group was compiled to provide a statewide summary of issues, actions and calls for commitments. The following are the key summary points raised by the participants, in preparation for the leadership panel in the closing session of the Roundtable. The details of each watershed breakout session are provided in Appendix B.

Top Issues Presented to the Leadership Panel by Basin Groups:

- ◆ **Straight-pipes and septic systems**
- ◆ **Resource extraction** for both logging and mining
- ◆ **Nonpoint source runoff (NPS) and Urban Wet Weather Pollution;** including wet weather-related issues such as sedimentation, stormwater, combined sewer overflows (CSOs), confined animal feeding operations (CAFOs), development, flash floods, pathogens and agricultural runoff
- ◆ **Development, urban sprawl** and land use planning- the need for a comprehensive approach.
- ◆ Need for **community interest, involvement, and education**

Calls for Action and Action Steps:

- ◆ **Straight-pipes (septic systems)** call for systematic approach for operation and maintenance of systems when/where “sewer” pipes not available, and enforcement from state level
- ◆ **Resource extraction** calls for logging to stipulate minimum log size and to prohibit “bad” players from selling to mills; and for mining to include intermittent and ephemeral streams in federal legislation.
- ◆ **Nonpoint Source Pollution** calls for proper installation and use of best management practices (BMPs) encouraged by incentives, recognition, and enforcement (as appropriate) combined with research and application of innovative designs and materials
- ◆ **Development** calls for (1) education of buyers and builders, channel restorations, holistic developments, community-level roundtables, and greener ordinances; (2) incentives and rewards for existing developments, compensation for lost green space,

and comprehensive planning; (3) ordinances and enforcement of existing laws/regulations and consistency in regulations

- ◆ **Community interest, involvement, and education** calls for better collection, assessment, and dissemination of data, encourage local officials to attend education seminars (e.g., “water ed”), lobby for adequate staffing to implement erosion control programs
- ◆ **Urban sprawl** calls for increased education, outreach, and communication between agencies and public; develop and implement ordinances that protect water quality and quantity; and increase Health Department’s role in permitting and enforcement of onsite systems
- ◆ **Land use planning** calls for landowner and resident education, geographic information system (GIS) to track failing septic systems, targeted monitoring, publicity, and small flows planning

Selected Commitments from Groups:

- ◆ Kentucky Infrastructure Authority to look at *funding* resources, especially State Revolving Loan Funds (SRF)
- ◆ Area Development District’s via Water Councils to **work** with utilities and co-ops
- ◆ Roundtable attendees to be *included* on River Basin Team membership and correspondence
- ◆ *Continue and expand* informal (monthly breakfast) communication/coordination with local utilities and planning staffs
- ◆ Look to realtor boards to *sponsor* education efforts
- ◆ *Enhance* stormwater education from Division of Water (DOW)
- ◆ PRIDE to *contact* electric co-ops and, through the billing process, reach residents with information about septic systems
- ◆ Basin coordinators to *expand* invitations list for annual basin conferences

The statewide Leadership Panel was given this summary of issues, actions and commitments from the Roundtable participants. The Panel was asked the following for response and/or commitment for the “piece of the watershed puzzle” they hold. The questions and selected responses from the panel follow the list of Leadership Panelists.

Leadership Panel Participants:

Hugh Archer, Commissioner, Department for Natural Resources

Lloyd Cress, Chamber of Commerce

Rice Leach, Commissioner, Department for Public Health

Bob Logan, Commissioner, Department for Environmental Protection

Jerry Deaton, Director, League of Cities

Roger Recktenwald, Executive Director, Kentucky Infrastructure Authority

Marjan Peltier, EPA Region IV

1. How can we get better communication and cooperation between your agencies?

- ◆ Cities are in the middle of this. Education is the key. The League has added staff for water and wastewater issues. (Jerry Deaton)
 - ◆ Institutionalizing the process by incorporating (communication and cooperation) into one of our "media units," the Division of Water. This has helped to get a holistic approach. (Bob Logan)
 - ◆ With less state revenue and many pressing public health issues, you need to build the case better. It's not enough to state: "It's a public health problem" since there is no widespread disease. Must work together at the local level. (Rice Leach)
2. What about inconsistency and how can we increase enforcement resources?
- ◆ Enforcement is a tool that a resource agency uses to ensure that there is compliance with regulations and laws. Is it a good tool? That depends. Consistency is always a difficult task. Enforcement does not have clear-cut rules and procedures. (Bob Logan)
 - ◆ Enforcement should be prompt, decisive, effective, and directed at compliance rather than penalties. Our experience recently has not been decisive or prompt. If there is a compliance issue, there needs to be prompt resolution. (Lloyd Cress)
 - ◆ It's going to be hard to hold the line through traditional enforcement. This is running into private property rights. Thus, the future of environmental management is in education: adult and K-12. We need to get landowners involved. (Hugh Archer)
 - ◆ Any time an entity enforces a law, one hopes to get a change in behavior or a change in the environmental conditions. (Marjan Peltier)

It was extremely helpful as Basin Coordinator to get many diverse individuals in one room to discuss and vote on issues and actions for the Salt River Basin. New thoughts and ideas were mentioned that no one else has ever brought to my attention. I believe this first Roundtable in Kentucky is the beginning of a great dialogue in the Salt River Basin.

I look forward to another great one next year!!!

*—Angela Kessans,
Salt River Basin Coordinator*



Appendix A: Agenda
Solving the Watershed Puzzle

Kentucky Watershed Roundtable Agenda

Tuesday, August 19

9:00 a.m. **Registration opens**

10:15 – 11:45 a.m. **Plenary Session**

- Welcome: Reggie Van Stockum
- Watershed Overview: Barry Tanning, Tetra -Tech
- Panel: Why I'm Here
- Barry Tanning, Moderator
- Mary Jane Warner, Eastern KY Power
- Larry Thomas, Hardin County Farmer and Chairman of KFB Natural Resources Committee
- Mayor Shirlee Yassney, Russellville
- Judith Petersen, Kentucky Waterways Alliance
- Steve Owens, McCreary County Water District

11:45 a.m. – 12:35 p.m. **Lunch**

- Feature on-going slide show of watershed basins: Ken Cooke, DOW
- Christine Olsenius, Southeast Watershed Forum: "The role of a state Roundtable in building partnerships and programs"

12:45 – 1:15 p.m. **Facilitated basin/watershed discussions**

1:25 – 2:20 p.m. **Concurrent skills/tools sessions**

- *Forestry*: Dave Gabbard, Lexington-Fayette Urban County Government; Gary Moll, American Forests; Moderator: Bob Bauer
- *Construction/Development*: David Tomes, Triad Development; Barry Tanning, TetraTech, Moderator: Juva Sizemore
- *Source Water Protection*: Case studies: Wesley Wright, Logan County Conservation District; Steve Owens, McCreary County Water District; Moderator: Joe Burns
- *Agriculture*: David Sawyer, USDA NRCS; Larry Thomas, Hardin County Farmer; Moderator: Kori Jones

2:20 – 2:35 p.m. **Break**

2:35 – 3:30 p.m. **Concurrent skills/tools sessions**

- *Stormwater*: Johnny Gonzales, Division of Water; Chad McCormick, FMSM Engineers; Moderator: Johnny Gonzales
- *Forestry*: Dave Gabbard, Lexington-Fayette Urban County Government; Gary Moll, American Forests; Moderator: Bob Bauer
- *Construction/Development*: David Tomes, Triad Development; Barry Tanning, TetraTech; Moderator: Juva Sizemore

3:40 – 5:00 p.m. **Facilitated basin/watershed discussions**

Wednesday, August 20

8:00 a.m. **Registration opens – continental breakfast served**

8:45 – 9:30 a.m. **Facilitated basin/watershed discussions**

9:40 - 10:35 a.m. **Concurrent skills/tools sessions**

- *Watershed Planning*: Kurt Mason, NRCS; Mayor Dodd Dixon, Winchester; Moderator: Margaret Shanks
- *Wastewater*: Jim Tolliver, Letcher County Water and Sewer District; Scott Drake, Eastern Kentucky Power; Moderator: Mike Davis
- *Agriculture*: David Sawyer, USDA NRCS; Larry Thomas, Hardin County Farmer; Moderator: Kori Jones
- *Watershed Development*: Randall Arendt, Greener Prospects

10:35 – 10:50 a.m. **Break**

10:50 – 11:30 a.m. **Plenary Session**

- Gordon Garner, moderator
- Presentations from facilitated discussions to Leadership Panel and panel responses
 - Hugh Archer, Commissioner, Department for Natural Resources
 - Lloyd Cress, Chamber of Commerce
 - Rice Leach, Commissioner, Department for Public Health
 - Hank List, Secretary, Natural Resources and Environmental Protection Cabinet
 - Bob Logan, Commissioner, Department for Environmental Protection
 - Sylvia Lovely, Director, League of Cities
 - Roger Recktenwald, Director, Kentucky Infrastructure Authority
 - Tony Wilder, Boyle County Judge/Executive
 - Marjan Peltier, EPA Region IV

11:30 – 11:55 a.m. **Open Floor Dialogue**

11:55 a.m. – 12:15 p.m. **Closing remarks**

Appendix B: **Basin Breakout Session: Detailed Notes**

Facilitated process: The Division of Water Basin Coordinators and Kentucky Waterways Alliance Basin Delegates gave an overview of conditions, maps, and available information to start the breakout sessions.

Participants were asked the following three questions:

1. Where can we work together: issues and areas?
2. Who's doing what: actions and partners?
3. What we commit to do: in our organization, in our basin group, outside this meeting?

Each basin group prepared a list of issues, calls for action, and commitments by those present. The groups selected their top 2-3 items, which were then used to prepare the statewide summary for the Leadership Panel.

The comments and inputs provided by the basin breakout groups follow. The groups include: Kentucky River: Group #1, Kentucky River: Group #2, Big and Little Sandy Rivers, Green-Tradewater Rivers, Salt River, Upper Cumberland River, Licking River and Four Rivers (Jackson Purchase area includes, Lower Cumberland, Tennessee, Mississippi and lower Ohio River tributaries).

I felt that the Kentucky Watershed Roundtable was an excellent opportunity for environmental educators, elected officials, and members from other environmental organizations to get together and share ideas with one another. This conference also allowed everyone to hear, first hand, some of the environmental issues that we face across the state of Kentucky. Another positive aspect of the conference was the chance to network and make a connection with people that are facing some of the same environmental battles: whether it is enforcement or how to educate the general public in the most successful way. In turn, this forum helped create new ideas to help us overcome the environmental issues that continue to occur.

*Andy Lawson
Tennessee Valley Authority*

Kentucky River Basin #1 Breakout Session

Facilitator: Jon Walker, US Forest Service

Who is doing what: actions and partners?

Action Items:

1. Education
 - Education (builder & buyers)
 - Reviewing ordinances (planning & zoning)
 - Promote holistic approach to development
 - Community level development roundtables
 - Involving Local Government

2. Incentives and Rewards
 - Incentives and rewards to communities that have and use a comprehensive development plan.
 - Retrofitting existing developments to be more watershed friendly
 - Mitigation (beyond wetland, i.e. greenspace, tree replanting/compensation)
 - Funding for low-impact development

3. Ordinances/Enforcement
 - Reviewing ordinances (planning & zoning)
 - Involving Local Government
 - Enforce (or find resources to enforce) existing planning/development regulations.
 - Consistency of regulations

Malissa McAlister
Kentucky River Basin Coordinator
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What do we commit to: in our organization, in our basin group, or outside this meeting?

Commitments:

(Note: To some extent our group made commitments for groups that weren't there because it seemed like they needed to be involved. I think we were problem solving at this point.)

- Technical assistance promised by Erica Anderson @ Division Of Water (DOW)
- Funding? Natural Resources Environmental Protection Cabinet – all programs; Other agencies— i.e. KY Transportation Cabinet
- Realtors or Realtor Board to sponsor education
- Corporate sponsorship
- Enhanced storm water education (talk to Johnny Gonzalez, DOW)
- Bluegrass Pride is looking at the possibility of doing extensive storm water education program. This might include a storm water education month.
- KY Infrastructure Authority funding for Sanitary Sewer Operations separation
- Area Development District's or Legislative Resource Commission reviewing ordinances??
- Create multi-agency task force for ordinance review/implementation (include developers)

Where can we work together: on issues or locations?

Issues:

- **High rates of development**, particularly in the lower portion of the basin. *Note: After rewording and combining with similar issues, this was our top issue.*
- **Coal mining**, mountain top removal and the associated sediment runoff.
- Need more watershed education.
- **Biological protection/restoration** particularly in the headwaters. Also interested in how we target funding for restoration.
- **Working with public officials** and involving local governments.
- **Recreation/tourism** particularly on the main stem of the river. Need to strive for balanced use of the river.
- **Existing residential development** (retrofitting). Also, suggested the use of the tree availability service from the U.S. Forest Service. Also, we need more education about making watershed friendly neighborhoods.
- **Push watershed concepts with the developers** (they don't have an understanding of them). Also examine zoning ordinances.
- **Incompatible of grazing practices**, particularly downstream of the Kentucky River forks region.
- **Logging concerns**, and associated Best Management Practices (BMPs)
- **Education needs**. Misunderstood problems have lead to misspent money in the past. There is a lot of money in the Abandoned Mine Lands fund that is inaccessible due to political reasons.
- **Straight pipes**
- **Garbage**
- **Acid runoff from mining** is a problem. Funding for mining restoration versus funding for fixing safety hazards.
- **Karst issues** and how they figure into the watershed approach
- **Effectiveness of BMPs** (particularly with agriculture) and how are they tested/monitored.



Above: Kentucky River breakout session.

Kentucky River Basin #2 Breakout Session

Facilitator: Karen Schaffer, J. E. Edinger Associates Inc.

Where can we work together: on issues or locations?

Issues:

1. Community interest/involvement/education **13 votes**
2. Drinking water issues (quantity and quality, and funds for Source Water Assessment Protection Plan (SWAPP) implementation, locks and dams (i.e., changing the height in Kentucky river pools affects both quality and quantity) **9 votes**
3. Pollution source assessment and TMDL implementation (technically sound identification and quantification of pollution sources, TMDL implementation that considers likelihood of success and best use of funds. Include measures of success). For TMDL implementation, remove barriers between point source and NPS funding (319H etc). **7 votes, but won #3 slot on re-vote.**
4. Categorize and rate BMPs for municipal stormwater (i.e., create a handbook of BMPs for them to use. Generate funding and political will to address urban stormwater. **7 votes**
5. Enforcement of existing regulations **7 votes**
6. Coordinate on the straight pipe issue **1 vote**
7. Assess KY River Authority's effectiveness as a coordinating body and replicate in other watersheds if a useful structure for watershed management. **0 votes**
8. Section 208 plans – resurrect, update as a way to formalize watershed planning. Caution that 208 boundaries are based on ADDs not watershed boundaries. **0 votes**

The following items were handed in on notecards but not discussed by the group:

9. Quality and quantity of water
10. Control of discharge
11. Stream loss

Who is doing what: actions and partners?

Action:

#1 Issue: Community Interest/Involvement/Education

- ◆ Better collection, assessment, and dissemination of data to ensure that appropriate data are collected (i.e., to support source identification, not just ambient conditions). Also, technically sound assessments, use of volunteer monitoring data (pending approval of Quality Assurance Plans). Assist local representatives with proper use and prioritization of data, share data with the general public, distribute reports to local officials.

Malissa McAlister
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I think one of the most important observations from the KY River Basin #2 group was the emphasis on data: collecting the right data, doing technically sound assessments, disseminating the results to everyone from schools to local officials. People were interested in use of volunteer data. One of the data gaps was source assessment - making sure that pollution sources were correctly identified and the effectiveness of management measures was evaluated.

*Karen Schaffer, Scientist
J.E. Edinger Associates Inc.*

- ◆ Improve education of K-12 students, nonformal educators (e.g., 4-H, Scout leaders, etc.), local officials, and general public.
- ◆ Convince local officials of watershed priority; provide education credits for environmental seminars through KACo, League of Cities
- ◆ Lobby for adequate staffing to implement programs, especially erosion control
- ◆ Support formation and activities of local watershed action committees
- ◆ Create better connection between Conservation Districts and DOW, local officials, etc., to leverage resources
- ◆ Emphasize importance of water for aquatic life and biological uses (not just human health).
- ◆ Generate interest in stormwater utilities
- ◆ Provide more education about the proper maintenance of septic systems.

What do we commit to: in our organization, in our basin group, or outside this meeting?

Big Sandy Watershed Breakout Session

Facilitator: Vicki Pettus, KY Infrastructure Authority

Where can we work together: on issues or locations?

Issues:

1. Resource extraction – mining and logging, specifically
2. Straight pipes – need for systematic way to correct; affects recreational opportunities
3. Lack of funding for infrastructure and for water quality testing
4. Acid mine drainage (AMD) – potential exists continually and throughout the watershed
5. Abandoned mine land (AML) projects
6. Change in land use from forestland to other uses
7. Floodplain fill
8. Displaced wetlands
9. Flooding (due to mining and deforestation)
10. Lack of education and outreach for youth & adults re the importance of watersheds, protecting natural resources, etc.
11. Lack of availability of funding (need grants, not loans from State Revolving Fund)
12. Solid waste disposal (garbage) – hurts the aesthetics

Ted Withrow
Big Sandy Basin Coordinator
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Top issues identified: (number of votes in parenthesis)

Resource Extraction	(6)
Straight Pipes	(6)
Funding	(2)
Education/Outreach	(1)
Floodplain Fill	(1)
AMD	(1)
Garbage	(1)

The group decided to focus on two issues because there was a tie for the top issue.

Who is doing what: actions and partners? and

What do we commit to: in our organization, in our basin group, or outside this meeting?

Specific notes on top two issues:

1. Straight Pipes

Key players: Sanitation districts, local health departments, city and county officials, electric co-ops, DOW, KIA, citizen volunteers

Activities

- Need to inventory the problem (using health departments and volunteers); volunteers can take water samples
- Request KY Infrastructure Authority to consider taking actions that would convert a percentage of State Revolving Fund money, from loans to grants (set poverty criteria for homeowners to use)
- Cluster systems, package plants, septic systems, etc., should be operated and managed through a sanitation district or other entity; need to be systematic in approach
- Need to have proper enforcement from state level (take out the local politics; DOW must be more diligent)
- Need to provide education and outreach via volunteer groups
- Need to link having water with having sewer; start with existing water lines and make sure they close the loop by providing sewer lines for the area; then proceed to other areas that have neither water nor sewer

Commitments KIA, KRWA, Area Water Management Councils, ADDs, Electric Co-ops

2. Resource Extraction

Key players: Kentucky Coal Association; Kentucky Forest Industry Association; Association for Oil & Gas; U.S. Office of Surface Mining (Lexington, KY, Virginia, West Virginia); Kentucky Department for Surface Mining, DOW, Division of Forestry, Division of Water, Tourism (State Parks), conservation districts, KFTC, Kentucky Waterways Alliance, Corps of Engineers

Activities

- Clarify roles of DOW and Division of Conservation regarding erosion and sediment control and enforcement
- Re logging: stipulate that a logger who receives 3 violations will be prohibited from selling to local mills (need to be enforced by Division of Forestry via cooperation from Kentucky Forest Industries Association). Begin this through voluntary program but work toward regulations.
- Stipulate a minimum log size – need regulations for this
- Lobby U.S. legislators to amend Clean Water Act to include ephemeral and intermittent streams
- Request money for remediation of AMD areas
- Encourage Div of Conservation and conservation districts to sit at the table to resolve issues

Commitments: Not sure

Green-Tradewater River Basin Breakout Session

Facilitator: Frank Sagona, Southeast Watershed Forum

Basin Overview:

Dr. Ouida Meier, WKU, Center for Water Resources, began with an overview, identifying challenges and strengths of the Green-Tradewater River Basin.

Challenges: livestock
agriculture
karst topography
straight pipes/septic systems
coal mining
channelization
urban—stormwater/sewage

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Strengths: biodiversity water quality (+/-)
Conservation Reserve Enhancement
Program (CREP) -\$110 billion
people and institutions

Dale Reynolds, Division of Water and River Basin Team Coordinator for the Green-Tradewater Rivers, said the River Basin Team was in the process of establishing priority watersheds and determining which should receive high ratings— high indicating either severe impairment or pristine quality

Where can we work together: on issues or locations?

The 20 or so participants identified these issues of concern in the basin:

1. Biodiversity
2. Federally endangered species
3. Public awareness of the watershed
4. Karsts sensitivity-groundwater
5. Public education-stormwater phase II
6. Public complaint-erosion, flooding, pollution
7. Uncontrolled growth
8. Raw sewage-straight pipes/septic
9. Contamination of water from mining activities
10. AFOs (animal feeding operations)
11. Illegal dumping
12. Funding of stormwater remediation
13. Funding for dye-tracing and monitoring (of groundwater)
14. Forestry mismanagement, clear-cutting
15. Infrastructure capacity

After considering various ways of combining these issues, the group decided upon the three most pressing issues:

1. Groundwater contamination from straight pipes and septic systems
2. Animal feeding operations (AFOs)-- just slightly under the "size" limit and thus avoiding the more stringent regulations for CAFOs (confined animal feeding operations)
3. Infrastructure capacity for rural areas and small communities

Who is doing what: actions and partners?

Actions/Needs/Ideas/Partners

1. Participants spoke about agencies being able to ‘treat’ an immediate problem, such as a utility district bringing clean water to a locality with contaminated water but not being able to solve the problem that created the water contamination. It is not enough to have the ability to pipe clean water. The awareness that focuses on a single fix, ignoring the comprehensive watershed solution will not solve water quality problems.
2. Monitoring is too often done on a complaint basis.
3. Participants spoke of a need for a model that works on a scale more suited to smaller communities. Urban solutions will not always work for rural areas, with limited infrastructure. There needs to be a comprehensive workable model for water resources, including landuse and development standards.
4. Need for watershed awareness/education for local officials, planners and developers as well as the public. Decision-makers need to be equipped to make informed determinations
5. Suggestion for all in breakout session (from a member of the Leadership Panel): A need to develop graphic illustrations for ‘the people.’ What is important to them? People must be engaged and feel connected to influence their behavior. A need to better communicate, educate/inform people about water resource issues in a way that is easy to understand and follow—e.g. graphics.

What do we commit to: in our organization, in our basin group, or outside this meeting?

Commitments:

1. Participants will be provided with contact Roundtable breakout sessions information for networking.
2. Participants will be invited to work with the Green/Tradewater River Basin team, which meets monthly.
3. Several participants made reference to networking strategies that already are in place and working, such as monthly breakfast meetings

The Green/Tradewater breakout meetings raised the issue of improving communication among local agencies to make local government activities/decisions more coordinated. It was implied that local agencies need to be encouraged from the top down to create local agency roundtables that discuss pending development requests to make sure that things don't slip through because one agency is ineffective or misses a deadline.

—Dale Reynolds
Green-Tradewater Basin Coordinator

Salt River Basin Breakout Session

Facilitators: Mike Griffin, USGS and
Patti Grace-Jarrett, Metropolitan Sewer District

Session 1: Basin overview

Angela Kessans, Salt River Basin Coordinator, introduced Bruce Scott, KWA delegate, and he went on to discuss the terms 303(d), 305 (b), and impaired stream.

Angela Kessans
Salt River Basin Coordinator
Phone: 502-338-7874
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Angela then discussed briefly the statistical summary of the Salt River Basin. She went through impaired stream miles in basin, what they are impaired for, landuse in basin, water withdrawal permits, KPDES permits, and finally where individuals can find the Salt River Basin Status Report online.

Pennie DuBarry, USGS, added details about looking at where the KPDES sites lay, in addition to why sedimentation was such a large issue for the basin.

Frank Elsen, KWA delegate, also added to the discussion.

Not much attention was brought to the maps of the basin as far as impairment issues. USGS and MSD felt as though the data was not representative of the current information that is available.

The group brainstormed then asked that the two facilitators and the Basin Coordinator work to group the issues together and bring them back to the next session so they could vote on the issues. Below is a list that combined the various issues mentioned during the session.

Where can we work together: on issues or locations?

Summary of the issues brainstormed by group (compiled by the Facilitators):

- Non-point Source issues
- KPDES permits/programs
- Data Issues-GIS, Realtime stream flow, water quality information, stream monitoring, separate MORT and rest of basin results.
- Urban sprawl-development, building codes, minimizing channeling, industrial/residential development along waterways.
- Land application of chemicals-agricultural, residential, golf course.
- Bacteria
- Sedimentation
- Water pollution
- Division of transportation issues-planning, bisecting communities, waterways, ecosystems.
- Agricultural issues-animal waste disposal, Ag chemical usage, farmer friendly solutions, motivation for farmers and landowners, funding.

- Public apathy
- Short-term thinking
- Erosion Control
- Biodiversity
- Diversity of watershed-MORTs vs. Salt River Watershed

Who is doing what: actions and partners?

Actions and Commitments

Group then narrowed it to (agreed and voted on by the team):

- Non-point Source issues
- KPDES permits/programs
- Data Issues-GIS, Realtime stream flow, water quality information, stream monitoring, separate MORT and rest of basin results.
- Urban sprawl-development, building codes, minimizing channeling, industrial/residential development along waterways education, erosion/sedimentation, bacteria.
- Land application of chemicals-agricultural, residential, golf course.
- Bacteria
- Sedimentation
- Division of transportation issues-planning, bisecting communities, waterways, ecosystems.
- Agricultural issues-animal waste disposal, age chemical usage, farmer friendly solutions, motivation for farmers and landowners, funding, erosion, education.
- Public apathy and Short-term thinking
- Erosion Control
- Biodiversity
- Diversity of watershed-MORTs vs. Salt River Watershed

Once this was finished the individuals voted on what they believed were the three top issues.

The top four issues for the basin were:

- Urban sprawl
- Agricultural issues
- Public apathy and Short-term thinking
- Erosion Control

Here the group decided that it would be better if the four issues were voted on for both the MORTs and Salt River Basin.

Top issue for MORT:

Urban Sprawl

Top issue for SR Basin:

Agriculture issues

The group next brainstormed actions for both the Urban Sprawl issues and the Agricultural issues. The actions were primarily ideas they would like to see implemented, not necessarily that they would implement the idea.

What do we commit to: in our organization, in our basin group, or outside this meeting?

Urban Sprawl Action summary:

- Implement sediment/erosion control ordinances in all areas.
- Better education/outreach between government agencies and public groups.
- Develop and implement development controls that protect water quality and quantity.
- Health departments need to step-up and become more involved in environmental permitting and enforcement of on-site waste systems and straight pipes.

Agricultural Action summary:

- Utilize all media and special events to educate the schools, Ag community and public.
- Provide new additional funds (lack of) for volunteer incentive programs for water quality protection.
- Develop a coordinated effort of stream protection groups/partnerships from the farming community-environmental and farming groups.
- Enforcement of the water quality standards.
- Increase grassroots input in the beginning of the regulatory process.

The group then narrowed these long lists down to three.

Top MORT actions:

- Develop and implement development (including sediment and erosion) controls that protect water quality and quantity.
- Increase education and outreach efforts between government agencies and public groups.
- Health departments need to step up and become more involved in environmental permitting and enforcement of on-site waste systems and straight pipes.

Top Salt River Basin actions:

- Utilize all media and special events to educate the schools, Ag community and public.
- Provide new additional funds (lack of) for volunteer incentive programs for water quality protection.
- Develop a coordinated effort of stream protection groups/partnerships from the farming community and environmental groups.

Session 3: Prepared Comments:

The group began the day with finishing the commitment part of the session. Individuals in the audience threw out actions they or their agency/organization would commit to doing.

Summary of commitments in the Salt River Basin session:

- The Basin Coordinator accepts all input and invites all participants to join the SR Basin Team meetings.
- The Conservation District will help promote Low Impact Design through education of Planning and Zoning Board and developers.
- Little Kentucky Watershed Watch commits to watershed education thru stream monitoring, newsletters, etc.
- KY DOW commits to attend basin team meetings and support the effort.
- River fields commits to continue to educate people about the benefits of only one bridge over the Ohio River.
- Farm Bureau commits to lobby for upholding current levels of funding for incentives programs.
- Interested citizens will fight zoning changes that would increase sprawl.
- Basin Coordinator will talk to basin team about projects that address the issues mentioned here today.
- USGS commits to allowing the basin team to use their meeting rooms.
- Interested citizens will contact more legislatures for watershed protection.
- The NRCS will continue to work with landowners on land preservation issues.

Summary of stakeholders/partners brainstormed by group:

- US Geological Survey
- KY Division of Water
- Metropolitan Sewer District
- University of Kentucky
- Little Kentucky River Conservation District
- Salt River Watershed Watch
- KY Division of Forestry
- Salt River Basin Team
- KY Division of Solid Waste
- Sinking Creek Watershed Council
- River Fields
- County Conservation District
- Nature Conservancy
- County Health Departments
- Area Development Districts
- KY Transportation Cabinet
- Natural Resources Conservation Service
- Kentucky Waterways Alliance
- KY Fish and Wildlife Services

- US Army Corps of Engineers
- Trout Unlimited
- Landowners
- Schools (public and private)
- Farmers
- Churches
- Elected officials

The group finally brainstormed comments for the Leadership Panel.

Summary of comments:

- Do you plan to approach legislature about additional funding for watershed projects?
- Is funding being targeted for restoration or preservation?
- Are more funds directed towards preservation or restoration in the Salt River Basin?
- Why isn't there greater participation from state/federal agencies in the watershed framework planning?

Upper Cumberland River Breakout Session

Facilitator: Christine Olsenius, Southeast Watershed Forum

Where can we work together: on issues or locations?

Issues:

- ◆ Inappropriate and unplanned residential and commercial development
- ◆ Need enforcement of existing or developed nonpoint source guidelines
- ◆ Need a complete database of all nonpoint source information
- ◆ Need stormwater retention requirements
- ◆ Non-compliant point sources
- ◆ Protecting/restoring endangered species
- ◆ NPS education for the public and public officials
- ◆ Fecal coliform
- ◆ Human vs. animal fecal detection
- ◆ Pharmaceutical metabolites as pollutant
- ◆ Better protection of outstanding resource waters
- ◆ Non-compliance with Agriculture Water Quality Act
- ◆ Knowledge of all straight pipes and failing septic systems
- ◆ Increased negative side effects of tourism
- ◆ Sedimentation in drinking water sources
- ◆ Better enforcement of package plant violations
- ◆ Lack of funding and knowledge of funding
- ◆ Illegal dumping

Rob Miller Upper Cumberland Basin Phone: (606) 878-0157 Email: robert.miller@ky.gov
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Areas:

ATV management/regulation at Cromer Ridge in Rockcastle Co.
Fecal Coliform in Buck Creek

The group then consolidated the issues into four main issues:

1. Land use planning
2. Enforcement/ incentives to comply
3. Education/research/monitoring
4. Funding

Out of these four issues the following was voted the top issue: A need for education/research/monitoring in regards to straight pipes and failing septic systems. Specifically, to identify straight pipes and failing septic systems, identify who specifically to notify about their existence and what financial incentives can we offer for those residents who do not fall under other financial assistance plans to correct their systems.

Who is doing what: actions and partners?

Actions:

- ◆ Homeowners and resident education
- ◆ Secure GIS to locate failing septic systems
- ◆ Targeted monitoring
- ◆ Publicize---Newspapers, Electric Coops , radio
- ◆ Small flows planning

Partners and Cooperators:

- ◆ Property Valuation Administration (local PVA)
- ◆ Area Development District
- ◆ Health Department
- ◆ Home Inspectors/Appraisers
- ◆ Solid Waste Coordinator
- ◆ Churches/Social Agencies
- ◆ Fiscal Court
- ◆ Utilities
- ◆ Water District
- ◆ Division of Waste/Water
- ◆ Natural Resources Conservation Service
- ◆ Soil and Water Conservation Districts
- ◆ Schools
- ◆ Municipal government



A group from the Upper Cumberland watershed look at maps and GIS data layers for their area.

What do we commit to: in our organization, in our basin group, or outside this meeting?

Commitments:

- ◆ PRIDE will contact the electric coops for publicity as a vehicle to communicate to people with straight pipes or failing septic systems and will continue with current endeavors
- ◆ KY Rural Water (KRW) will help to identify and address small flows concerns in communities requiring alternative waste management systems
- ◆ Third Rock Consultants will identify straight pipes and failing septic systems and provide (Division of Water?) with GIS information
- ◆ Appalachian Science in the Public Interest (ASPI) will seek funding to identify alternative onsite waste management systems
- ◆ Nature Conservancy will conduct field trip with KRW and PRIDE to Jackson Co. problem area
- ◆ Basin Coordinator will help to expand invitations to annual basin conference

Comments for Leadership Panel

- ◆ Can there be continuing education (CEU) for utilities, League of Cities Members given for attendance to roundtables and workshops ?

- ◆ Would it be beneficial for District Conservationists to attend?
- ◆ What kind of assistance/enforcement/incentives can we offer people who do not qualify for assistance under current programs to replace straight pipes and failing septics? (and how to identify/track these people)
- ◆ What better methods can we use to locate/identify failing systems?
- ◆ Can Kentucky identify a better routing system among agencies for landowners with failing septic systems? (Who to call when one is located, who maintains database to know what has been fixed---what hasn't, how to direct landowners to proper agencies for assistance, a central clearinghouse?)

Four Rivers Area Breakout Session

Facilitator: Leslie Cole, KY Environmental Quality Commission

Attendance:

Facilitator: Leslie Cole, Director, Environmental Quality Commission

Recorder: Anne Sundermann, Kentucky Waterways Alliance

Note taker: Erik Siegel, Environmental Quality Commission

Basin Coordinator: Bob Wise

KWA Delegate: Bob Johnson

Nancy Forsythe Retired Educator

Tom Forsythe Retired – TVA

Andy Lawson TVA

Margo Farnsworth Cumberland River Compact

Kevin Murphy Manager, McCracken Sewer District

Bob Hunt Corps of Engineers, Memphis District

Brad Rodgers Planner for Mayfield

Lindsey Blanton Red River Watershed Association

John Rundle Division of Water, 401 Water Quality Section

Brent Harrel U.S. Fish and Wildlife Service

Ernest Collins Ky. Department of Agriculture

Billy Smith TVA, Lower TN. Watershed

Ricky Murphy City of Paducah, Engineer

Bob Johnson Jackson Purchase RC&D Foundation

Bob Wise Four River Basin Coordinator, RC&D Foundation

Don Becker TVA

Bob Wise Four Rivers Basin Coordinator Phone: (270) 554-1022 Email: bob.wise@rcdnet.org

Overview of Basin – Bob Wise

- Priority rivers – Red River, Clark River, Bayou de Chein
- Main Pollutants
 - Sedimentation/siltation
 - Pathogens
 - Channelization – habitat alterations
- Items to address
 - Stream restoration – restore straight line channels
 - Pathogens –
 - Black water collection and lagoon treatment
 - Flash flooding caused by runoff from roads, roofs, compacted soils, buildings (basin never had flash floods 30 years ago).
 - Need tools and resources to fix watersheds.
 - Funding -- Challenge to ask people to pay when economy is bad – jobs take priority.

Where can we work together: on issues or locations?

Issue or Area: Consensus was to discuss key issues

Listed Issues (round robin)

- ◆ Sedimentation
- ◆ Environmental Education
- ◆ Sedimentation/Agriculture and BMPs
- ◆ Pathogens, nitrates, surface/groundwater interaction.
- ◆ Economics and Karst Geology
- ◆ Wet Water Issues – Pathogens levels from CSOs, agriculture, wildlife???
- ◆ Garbage or trash (need mandatory garbage collection)
- ◆ Sedimentation from land development
- ◆ Lack of BMP use or poor use.
- ◆ Recreation and Tourism impacts – marine and resort sanitation
- ◆ Lack of functional wetlands
- ◆ Lack of hydrologic data – no baseline data
- ◆ Pathogens
- ◆ Flash flooding because of poor use of BMPs and channelization
- ◆ CAFOs
- ◆ Lack of public awareness and public involvement
- ◆ Poor storm water management
- ◆ Creek monitoring issues, issue of responsibility
- ◆ Lack of interest of elected officials (pro-development, pro-jobs, pro-economic development)
- ◆ Responsiveness of state to local problems
- ◆ Inconsistent enforcement of regulations across state from one locality to another
- ◆ Local officials manage by crisis - wait until a problem becomes a public relations problem
- ◆ Risk communication with the public

“Wet weather runoff is a significant threat to the Four Rivers Basin and will remain a concern unless we can work together to address the many challenges confronting the region.”

*—Kevin Murphy
Director of Operations of
the Paducah McCracken
Joint Sewer Agency*

Consolidation of Issues: Rather than vote on the above, the group combined several issues into the following categories:

- ◆ *Issue 1. Wet Weather Issues – Nonpoint Source*
 - Sedimentation
 - Stormwater
 - CSOs
 - CAFOs
 - Pathogens
 - Land Development
 - Flash Floods
- ◆ *Issue 2: Education/Lack of Awareness*
 - Landowners/farmers
 - Public officials
 - Bankers/Land Developers
 - General Public

- ◆ *Issue 3: Land Use and Development*
 - Lack of planning/zoning
 - Reasonable balance between land development and land use.
- ◆ *Issue 4: Infrastructure*
 - Stormwater
 - Wastewater
 - Onsite sewage
- ◆ *Issue 5: Data and Analysis*
 - Lack of data (baseline)
 - Lack of clear understanding of sources and issues
 - Lack of monitoring
- ◆ *Issue 6: Regulatory Issues and Enforcement*
 - Inconsistent enforcement of regulations
 - Lack of responsiveness by state and local regulators

"Since the Cumberland River runs through both Kentucky and Tennessee it's vital to have interest and action in both areas. With this kind of attendance, I can see a new day for water issues in our Basin."

*—Margo Farnsworth,
Executive Director,
Cumberland River Compact*

Unanimous selection of the following top three priority issues for the basin.

- ◆ *Issue 1. Wet Weather Issues (NPS)*
- ◆ *Issue 2. Education/Lack of Awareness*
- ◆ *Issue 3: Land Use and Development*

Who is doing what: actions and partners?

Throughout the session, several participants shared a number of efforts ongoing in the basin. These included:

- ◆ Cumberland River Compact
 - Education Initiatives – School lesson plans
 - Survey of local officials
 - Living Watershed Center – Water Resource Center for the Cumberland River Basin is under discussion
- ◆ Corps of Engineers
 - Watershed planning
- ◆ US FWS
 - Restoration programs and initiatives
- ◆ TVA
 - Lower Tennessee Watershed Team
- ◆ McCracken County
 - Phase II stormwater requirements
 - Workshops for planners under development
- ◆ Basin Coordinator
 - 319 projects to restore straight line channels

- 319 cluster system on Pirate Cove
- Watershed watch groups
- ◆ W. Ky. University
 - Phase II stormwater workshops

Actions Steps- Suggested Actions

A general discussion of the actions needed to address the top three issues in the basin.

Issue 1. Wet Weather

- Involve public in addressing issues (raise public awareness)
- Proper installation, use and maintenance of BMPs followed up by enforcement as well as promoted through incentives and recognition.
- Greater use of riparian and sink hole buffer zones.
- Better assessment of problem
- Better use of BMPs
- Better enforcement of laws and regulations on the books.
- Mandatory garbage collection
- Funding and resources (state and local)
- Better building management
- CAFO regulation and better nutrient management (on and off site)
- Targeted monitoring to identify and assess problem areas.

Issue 2: Education/Lack of Awareness

- Basinwide Water Resource Center to coordinate workshops, serve as a clearinghouse, conduct surveys, house and develop education resources, etc.
- How-to-workshops
 - Development industry
 - Planners
 - Public officials
- Comprehensive planning – raise awareness and benefits
- Basin reports with school lesson plans
- Demonstration projects
- Farmer Education Workshops
 - BMPs
 - Pesticides
- Create Benchmarks to measure and report progress to public and local officials and raise public awareness.
- Education Resources Survey of Needs to match with existing resources
- Educational materials and opportunities for public officials – compensation for attendance—integrate into existing classes, conferences, etc.
- Get public officials attention through enforcement actions (will not do anything unless it hits them in the pocketbook – slap on the wrist does not work).

Issue 3: Land Use/Land Development

- Minimum buffer zones (sinkhole and riparian)
- Improved construction practices
- Stronger and more consistent enforcement of BMPs.

- Brownfield redevelopment
- Infill urban areas
- Strengthen regulations on wetland mitigation and maintenance with priority to saving high functional existing wetlands.
- Floodplain building restrictions/bans. Update floodplain maps.

Priority Issues, Actions Items, Partners

Issue 1: Wet Weather Issues – Nonpoint Source

Action: Proper installation and use of Best Management Practices encouraged through incentives and recognition and enforcement as appropriate. Promote innovative design and use of materials.

Partners: TVA, Extension Service, Universities, Landscapers, USDA, local watershed organizations, NRCS, RC&D, local officials, Div. of Water, Conservation districts, farm groups, developers, Ky. Div. of Conservation, Ky. Dept. of Agriculture

Issue 2: Education/Public Awareness

Action: Formation of a basinwide watershed resource center to serve as a clearinghouse, trainer, educator, research center for the basin. (link with proposed Living Resource Center – Cumberland River Compact)

Partners: National groups, TVA, COE, regional universities, TVA, NEMO, local and state officials

Issue 3: Land Use

Action: Statewide and local incentives to encourage and promote commonsense land development.

Partners: City/county planners, ADDs, state and local elected officials, developers, planning groups, watershed groups, conservation groups, homeowner associations.

What do we commit to: in our organization, in our basin group, or outside this meeting?

Commitments

Throughout the sessions, various participants discussed commitments and follow-up actions they would pursue.

- ◆ Watershed Basin Coordinator will consider expanding out watershed watch annual meeting to more of a roundtable discussion format and will discuss concept of Watershed Resource Center with regional universities.
- ◆ Cumberland River Compact will work more closely with basin coordinator and others in the four river region to bring them into the Living Watershed Center concept discussion.
- ◆ Dept. of Agriculture will seek out partners from roundtable participants for its 319 pesticide project in the basin.
- ◆ Jackson Purchase RC&D and city of Paducah will consider development of a workshop for planners

Licking River Basin Breakout Session

Facilitator: Mary Kathryn Dickerson, Boone, Campbell, and Kenton
County Conservation Districts

Where can we work together: on issues or locations?

Top Three Priorities

1. Enforcement of laws and regulations
2. Stormwater, BMPs, impervious, planning and development (distribution and population)
3. Onsite wastewater treatment

Lajuanda Haight-Maybriar <i>"appointed 11/16/03"</i> Licking River Basin Coordinator Phone: (502) 564-3410 Email: Lajuanda.Haight-Maybriar@ky.gov

Top Issue: Enforcement

- ◆ Division of Water apparently short-handed
- ◆ Enforcement comes out of Frankfort; local office can't really enforce
- ◆ Enforcement limited in Frankfort by overload
- ◆ Limitations to planning and zoning by the constitution
- ◆ Fish and Wildlife can prosecute on complaints in their jurisdiction (dead animals); Ineffective, bureaucratic layers; red tape
- ◆ Enforcement for straightpipes fall into that problem
- ◆ Straightpipe law is not being enforced
- ◆ Some people do not perceive that they are illegal (long-standing situations)
- ◆ Education about laws is needed
- ◆ Overwhelming numbers of straightpipes
- ◆ Help people comply with laws
- ◆ Jurisdictional issues: Health Dept has some oversight; DOW (depends on the pipe/non-pipe)
- ◆ Local pressure to not enforce (on health departments)
- ◆ Need alternatives

Who is doing what: actions and partners?

Actions/Ideas for resolution for Enforcement

- ◆ Raise fines (for developers)
- ◆ Sanitation District can issue stop-work orders
- ◆ Clarify jurisdictions
- ◆ What's allowable in terms of enforcement
- ◆ Establish deadlines (ex: to end straightpipes)
- ◆ Identify technologies that work in LR, and disseminate that information to the appropriate agencies and the public.
- ◆ Problem with Health Depts not approving technologies: training, education, approvals.
- ◆ Educate installers, increase the number of certified installers.
- ◆ Public expression of opinion to legislative representatives
- ◆ Provide wastewater funding for non-urban areas

- ◆ Identify appropriate sources of information (example: mis-use of blue-line streams (see Doug Hines)
- ◆ Public education necessary to achieve compliance
- ◆ Basin Coordinator help needed.
- ◆ Educate people about comprehensive planning
- ◆ Need to tie economic impacts to issues in order to get people’s attention – the financial impacts.

What do we commit to: in our organization, in our basin group, or outside this meeting?
Commitments: Bill will help with technologies available.; Stormwater BMPS: Erin, Bill

Initial listing (groupings for voting)

- ◆ No Basin Coordinator - 6
- ◆ Education and awareness – 9
- ◆ Nonpoint source lack of education
- ◆ Raising citizen awareness
- ◆ Funding – 3
- ◆ New construction funds for wastewater
- ◆ Water Quantity (high and low flow and demand) – 4
- ◆ includes increased usage from public water and lack of wastewater(Water supply lines expand and waste disposal lags)
- ◆ Impervious surface and increased flooding
- ◆ Water quantity – completing uses and instream needs
- ◆ Conservation and restoration biodiversity - 2
- ◆ Aquatic biodiversity conservation
- ◆ Endangered species & aquatic mussels
- ◆ Terrestrial diversity
- ◆ Riparian zone use and management
- ◆ Onsite wastewater treatment - 6
- ◆ Straight pipes, onsite systems, septic systems, including operation & maintenance
- ◆ Enforcement of laws and regulations - 9
- ◆ Legal means to implement plans
- ◆ Stormwater, BMPs, development planning and development – 7
- ◆ Redistribution of population
- ◆ Water quality, sediment & erosion (including non-ag) – 7
- ◆ Water quality – reservoirs: iron and manganese
- ◆ Water quality watershed improvement at the local level
- ◆ NPS, solid waste, including tire disposal - 1
- ◆ Testing watersheds and characterization of the land and water resource – 1
- ◆ Character evaluation of issues and water: hydrogeochemistry
- ◆ More testing needed

The Strodes Creek Conservancy went to the Clark County Fiscal Court yesterday (where they received the necessary \$24,000 in grant match they needed!). One of the city employees who has been involved told me the Roundtable was excellent, that he learned “so much”. He said he hoped we would do more of them. He said it was very useful to have time to discuss with people from the area, and that he was able to connect with people. This kind of enthusiasm for training or a conference is rare.

—Pamla Wood,
 (Former) Licking River Basin
 Coordinator

Final voting for top issues:

12 – Enforcement of laws and regulations

9 - Stormwater, BMPs, impervious, planning and development (distribution and population)

7 – Onsite wastewater treatment

7 – Water quality sedimentation and erosion.

6 – Education

3 – No Basin Coordinator

Appendix C:



**Kentucky Watershed Roundtable
Evaluation Report**

August 19-20, 2003 Holiday Inn North, Lexington

Evaluations Received: 72

Responses

Question 1: What purpose could the Roundtable serve for your organization or agency?

Responses: 70

- 61 - Gives me a chance to network with other organizations and agencies
- 32 - Helps clarify state and national watershed programs
- 45 - Gives me a better sense of local watershed needs/concerns/issues
- 31 - Gives my organization/agency new ideas for implementing watershed programs.
- 16 - Provides innovative Programs that can be replicated in my city or watershed
- 4 - Other: Offered perspective of agencies and the need for cooperation.
 - Opened opportunities to offer assistance to watershed groups
 - Helped identify information and services and grant sources
- 0 None

Comments to Question 1:

- Other: Helps to identify information.
- Other: Gives me a chance to voice my concerns about my area.
- Other: Sparks new concepts and ideas.
- Other: Opportunity to offer assistance to watershed groups.
- Other: As a volunteer sampler this gave me a better perspective of the diverse agencies involved in watershed issues and the need for more cooperation.
- Other: A chance to get the agency leaders involved and hear the issues.

Question 2: Do you feel the information, programs or networking at the Roundtable will change the way you do business in your community, organization, or company?

Responses: 70

- 33 - Yes
- 8 - No
- 31 - Maybe

Comments to Question 2:

- Maybe: Depends on programs offered or agreements between agencies.
- Maybe: My agency will try to participate more in watershed programs
- Maybe: Depends on the commitment shown by lead agencies in solving the issues after the meeting so it is not just another conference.

Maybe: They serve to interest me in areas previously overlooked. I am not a decision maker in my organization but I can act as a conduit with helpful resources for decision makers.

Maybe: Possible good partnering opportunities with agencies within the basin

Maybe: For the most part we know what needs to be done. However we need support of other state and local agencies and public/commercial workgroup.

Maybe: By sharing this info with other agencies in my community (planning comm. etc.) that were not in attendance, it may change their news and/or spark new interest in those agencies.

Maybe: Am hoping for benefit from networking and raised awareness.

Yes: Re look at how we fix location of installed systems.

Maybe: Not broad enough representation at Roundtable...need more city planners, judge exec. public health board members...easy to criticize hard to find solutions.

Maybe: Currently apply for funds to extend sewer to unserved. May provide a means to clean up watershed to reduce problems at WTP and make streams useable for recreations, etc.

Maybe: Not enough discussion on existing and successful programs for me to run with.

Yes: Networking was good/helpful. Maybe at next roundtable be more watershed specific with one or more success stories per basin.

Yes: Will work on educating local officials and decision makers. Will evaluate adopted regulations to gauge compliance with initiatives. Will include more agencies when evaluating development proposals.

Yes: More local focus

Yes: Will use good ideas.

Yes: Came away with a better understanding of the players and the local issues

Yes: I made a great number of contacts and found out who to communicate with and go to work on all these great ideas.

Yes: Networking was key! It put me in touch with key people who can help me move this issue along at the county level.

No: We have had a plan to serve groundwater data and geologic data to the Commonwealth for a long time. We seem to be in line with needs.

Yes: Yes, I hope so.

Yes: Bring together different issues.

Yes: I hope so, I hope networking and discussions can help me create better programs.

Yes: Formed new connections– "joint" exposures to new ideas will help us implement the ideas and concepts.

Maybe: Professionally the goals are outside my scope. However personally being more active as a citizen can... [not finished]

Yes: Attempt to work more with groups like KWA to moderate extreme positions that can be detrimental to real environmental progress.

New approaches always interesting.

Yes: Opened opportunities to offer assistance to watershed groups.

Yes: A number of existing organizations and contacts will assist future efforts in "The Clean Water Act."

Yes: Hope so, we need more intergroup interactions

Maybe: Improve communication and education between agencies& public.

Maybe: Too much government but a lot of promise.

Yes: It helps to know who do contact, depending on situation. I think it is a great start for conservation and improvement of water.

Maybe: I work for an agency...changing way of business is not all that easy.

Yes: Made me more aware of the big picture of how all our activities affect the watershed.
Plan to take this message forward.

Yes: I now have a better idea of watershed issues that I can share with others.

Maybe: A better understanding of the watershed concept will improve planning with watersheds in mind.

Maybe: Many of issues have been worked on in past and not solved. Hopefully [this] will change.

Yes: to communicate the needs and concerns of the watershed to state agencies and other community organizers.

Yes: Allows me to pitch the idea of change from the perspective that other agencies are behind us.

Maybe: Gives us a chance to network with other organization or agency.

Maybe: If funding becomes available our agency could definitely make a difference, by going into the community and systematically work on the problems in our community.

Yes: The networking that the Roundtable facilitates has given me a better sense of the resources that can be utilized for amore effective strategy of addressing issues in our area of the basin.

Maybe: If there is more support for my projects when I return.

No: Not as a result of this Roundtable. Hopefully future Roundtables will address/identify more specific conditions and prioritize those that can be practically improved at the local level.

Yes: Awareness and education on watershed programs.

Yes: I was able to make several face-to-face connections with people that will assist in my efforts in the basin.

Question 3:What do you like most about the Roundtable program? (Check all that apply)

Responses: 72

35 - Training Workshops

21 - Plenary Session (Observation: People who checked "B" most often checked all categories)

44 - Networking

48 - Basin Breakout and Discussion Sessions

2 - Other: meeting other people who are doing things locally in watershed

This might be a good forum to host onsite.

Comments to Question 3:

Basin breakouts: excellent.

Plenary session: The Wed. session was much more interesting than the morning one. Nearly everyone made explanations about why it can't be done and defended their current position. Wanted more of be done and defended their current position. How can we change to better communicate with "the" people. Except for [that] she was great.

Other: Meeting other people who are doing things locally in their watershed.

Other: this would be a great forum to volunteer to host onsite/hands on discussion groups.

Networking: Networking with individuals who have more specific information and experience.

Question 4: Do the Training Workshops offer practical applications for addressing your city/agency/group watershed needs?

Responses: 63

48 - Yes

7 - No

8 - Not applicable

Comments to Question 4:

Crossed out Training Workshops and changes to Skills/Tools Sessions

No: I was expecting the training sessions to address the current situation in Kentucky. For example I was expecting the Agriculture training session to explain the actual influence of agriculture is having on watersheds in KY rather than telling us that the farmers are good conservationists (Many farmers are great conservationists but agriculture is a primary negative in KY).

Yes: Suggestion: give a short abstract on content so participants can better select attendance.
Basin breakouts: So many divergent views -hard to select appropriate focus small enough to buy into meaningfully.

Question 5: What do you like least about the Roundtable program?

Responses: 46

6 - Training Workshops

9 - Basin Breakout and Discussion Sessions

16 - Plenary Session

14 - Other

Comments to Question 5:

They are all important (respondent did not check any)

Other: Dominance of advocacy groups and regulatory agencies. Other: Needed more time.

Other: I would have liked the opportunity to attend more of the training workshops.

Basin breakout location was in an open area and we were interrupted by noise/laughter/phone conversations.

Basin breakout: not enough time in breakout sessions to be really useful

Other: Not enough time to attend all training workshops.

Other: Choosing between workshops.

None checked: too much time on basin breakouts - resulted in preaching to the choir.

Other: The circularness of the breakout sessions and the lack of resolution.

None checked: all programs were equally beneficial.

None checked: need a better layout of schedules rooms (maps). The facilitators could announce prior to breaking up.

Other: all sessions were good and valuable.

Other: Training workshops didn't seem like training but more like idea sharing.

Other: The forestry workshop should have been listed as an urban forestry workshop as it dealt with other forest issues.

Other: I would have liked another selection for the rural non technical volunteers in the last (Wed. am) skills session.

Plenary sessions: first one was a little long.

Plenary sessions: some had too many presenters, too little time for their presentations.
Plenary sessions: Tuesday morning. Liked Barry, didn't see purpose of why I'm here.
Other: Strict time limits put a damper on spirited discussion. People didn't have time to get things off their chest.
It's all been good.
Other: Trying to force our suggestions into general questions for a panel that has no real interaction or power.
Other: Leadership panel not very focus, not sure why. Vague questions? Complaints about resources not very inspirational!
Other: Not enough opportunity for Q & A and dialogue.
Plenary sessions: The closing plenary deflated a lot of the energy and enthusiasm generated during the prior session. The speakers were discouraging in their remarks and were given too much time to speak. Should have given time limits so that more questions could have been asked.

Question 6: How could the Watershed Roundtable be improved?

Responses: 39

Specific comments:

If possible, extend the time for workshops.
Relax the schedule and promote informal discussion, field trips, more case histories, invite more elected officials, training/info on funding.
It started slow! That will get better through experience.
More time needed.
Be held more often.
This one needed more time per session. We cut discussions short just to get 3/4 through the agenda.
Take it down to the river basin level.
More time for basin breakout sessions.
I think people need a chance to vent for a little while on their favorite issues, then they can get down to business.
On the nametag list the persons affiliation.
Yes, give participants a better overview/understanding of the basin breakout session before the roundtable.
Involve elected officials by getting sessions approved for CEU, thereby giving officials incentive to attend.
Provide update on how issues have been handled prior to the next roundtable.
My group (4 River Basins) missed both workshops on Tues. because of confusion about schedule...should have explained agenda better at Roundtable opening. (Also...) Broader range of interested (hard to accomplish. (and) Don't have basins meet so long. Have basin members mix for exchange of ideas at second roundtable.
Get more developers, builders and industry.
Better signage at each room for breakout sessions.
Have PowerPoint that are used, be available online immediately for downloading.
Be more action oriented.

Even more diverse participation by stakeholders (ie, those impacted adversely by advocacy groups like KWA)

More involvement from other groups (eg, solid waste)

More time for Q&A and discussion of skills/tools session.

Maybe short (5 minute) presentation on what worked -- Bring something to the table--positive & real that this occurred -- not proposed.

Little more time for agency lead panel and for local issues by category, not by basin.

Spend 2 full days--Have field trips to see successful examples of wastewater issues, stormwater, non-erosion practices, etc., and other watershed management practices.

Add more workshops and expand to 2 full days...make longer breakout sessions.

Very little industry represented.

Slightly more focus would be good...for example, urban forestry was kind of scattered. Also, mark room doors with session schedules. It was very hard to figure out where to be when.

We needed more space. You had to climb over people if you needed to leave during a session....the program was great...I could not see slides during lunch as it was stuck in a corner. Lunch was great.

No suggestions. In our breakout sessions we came up with questions for panel. In some ways panel seemed kind of out of touch with this process and not an appropriate body for our questions. It was as if they could not help with our concerns.

It the training workshops covered a broader spectrum.

Make the training sessions to be truthful explanations of actual conditions in the state or specific watersheds, and how these are being addressed. Try not to pick presenters who will only present a positive side to what they do.

It was a lot of activity packed into a short period of time.

Not Basin-specific--Should start from available info on basin (basin plan) , not redefining watershed issues.

More advertisement of the conference.

Include more local decision makers

More time for basin discussions.

Include local decision makers.

Longer time periods for facilitated basin breakout sessions. Once discussion got going it was time to move to the next session.

Question 7: How do you view the role of the Watershed Management Framework?

(Check all that apply)

Responses: 70

- 52 - Acting as a clearinghouse of watershed information
- 43 - Providing watershed training
- 58 - Improving coordination of regional/basin water issues
- 50 - Enhancing partnerships between the public and private sectors
- 43 - Promoting water education
- 30 - Serving as an advocate for local/regional watershed interests to federal agencies
- 34 - Serving as a neutral forum/convener to host meetings on regional water issues
- 6 - Other

Comments to Question 7

DOW dominance damages function.

Other: More/greater training on the above issues/programs needs to be given to the basin coordinators.

General: I really don't think we are neutral!

General: added...to offer reasonable compromises.

General: ...the role of what the framework *should be*? [Emphasis added by respondent]

Other: Provide data.

Other: Acting as watershed watch-dog and direct link to appropriate enforcement agencies.

Other: Assisting with seeking funding.

Other: Exchange of projects that may lead to in kind assistance.

Other: I have no idea what the watershed mgmt. framework does but I would like for it to do those checked (A&C)

Question 8: Should the Kentucky Watershed Roundtable be an annual event?

Responses: 69

66 - Yes

0 - No

3 - Other

Comments to Question 8:

Other: Probably 2-yr at minimum

Definitely!

Yes: Possibly establish priorities, then each year or every other year evaluate progress made toward the priorities.

Other: semiannual.

Overall--all very good programs that will enhance future efforts.

Yes: How far have we come since last year? What worked, what didn't.

Other: every other [year].

Yes: As long as length (1 1/2 days) is maintained.

Yes, for at least 2-3 years.

Yes: and longer and bigger

Yes: Need follow up

Comment: We need a means to show ~how~ programs have been initiated. Also need to know how obstacles to success of those programs are identified.

Other: maybe for a while, eventually every 2 years.

Appendix D: List of Participants