Chesapeake Renewal Project

Findings

Alliance for the Chesapeake Bay

6600 York Road

Baltimore, Maryland 21212

Phone: 410-377-6270 / Fax: 410-377-7144

Email: mail@acb-online.org

Web site: www.acb-online.org

June 15, 1999

Submitted to the

2000 Chesapeake Bay Agreement Planning Committee

of the Chesapeake Bay Program

Prepared by Lisa Keir, under a contract with

the Alliance for the Chesapeake Bay

Email: lkeir@acb-online.org

Chesapeake Renewal Project Findings Report

Executive Summary

Introduction to the Chesapeake Renewal Project

> The Chesapeake Bay as we know it today is the result of thousands of years of continuous change. The Chesapeake, less than 10,000 years old, continues to change. Nature, like a dissatisfied artist, is constantly reworking the details. Some modifications enhance the Bay; others harm it. All affect the ecosystem and its interdependent parts.
>
> — From Chesapeake Bay: Introduction to an Ecosystem

This constantly changing Chesapeake Bay is a study in contradictions. We picture it as a tranquil sanctuary for wildlife, a snug harbor for fishing boats, and a sun swept sandy beach. But it is much more—it is the ports of Hampton Roads and Baltimore, a vital part of the economies of the states of Virginia and Maryland. It provides a living for thousands of commercial watermen. And millions of people swim, fish, crab, sail, motorboat, Jet Ski, water ski, sail board, and live besides its shores. It is dredged, bulkheaded, drained, and crowded with piers. Factory, home and automobile emissions float above it and, below its surface, pipes discharge hundreds of millions of gallons of wastewater filled with nutrients, sediments, and chemicals and debris. Millions of acres of land, from cities to farmland, discharge nutrients and sediments into thousands of miles of small streams and rivers, ending in the Bay.

In 1987 an extraordinary agreement was signed in which the governors of Pennsylvania, Maryland, Virginia, the Mayor of the District of Columbia, the Chairman of the Chesapeake Bay Commission and the Administrator of the Environmental Protection Agency agreed to work to restore the Chesapeake Bay's abundance of living creatures and protect its waters in the future. Since that historic signing much work has been done. Many of the goals in the 1987 Agreement were indexed to 2000.

With that deadline fast approaching, the signatories decreed a new Agreement was needed to lead us into the 21st century. Before a new Agreement would be written though, the signatories wanted an accounting of the status of the Bay restoration efforts. They also wanted to know what the public thought should be in the next Agreement.

Chesapeake Renewal Project Methodology

The Alliance for the Chesapeake Bay spearheaded the first-ever, comprehensive evaluation of the Chesapeake Bay restoration effort. The Chesapeake Renewal Project created a three-pronged method for public input.

1. 95 key stakeholders throughout the watershed were personally interviewed for an in-depth discussion about successes and failures of the restoration effort, emerging issues which should form a part of 2000 Chesapeake Bay Agreement, and changes to the Chesapeake Bay Program.
2. 22 focus groups were held to determine what various interest groups considered to be the success and failures, the emerging issues and changes necessary for the Bay Program to meet their needs.
3. 750 questionnaires were returned from Bay Journal readers, members of various environmental organizations, and others, in which respondents selected successes, failures, emerging issues and changes to the Bay Program.

Information from these three sources was entered into a series of databases. In addition, each interview was summarized, recording the words of the interviewees as exactly as possible. And the comments of focus group participants were recorded in great detail. The analysis of this information forms the basis for the Chesapeake Renewal Project Findings Report.

Chesapeake Renewal Project Findings

1. Successes of the Restoration of the Chesapeake Bay to Date

The greatest levels of success noted from interviews, focus groups and questionnaires were:

- **Nutrient reductions**—reductions in the amount of nitrogen and phosphorus entering the Bay watershed. The 1987 Agreement set a goal of reducing nutrients by 40% by 2000. That goal is very close to being reached. The phosphorus detergent ban, implementation of Biological Nutrient Removal at wastewater treatment plants, and establishing agricultural Best Management Practices have all been helpful in reducing nutrient loadings.
- **Living resources**—The number of living resources, SAVs, fish, oysters, waterfowl, and the habitat necessary for their successful existence in the Bay watershed are considered a success by many, from commercial watermen to environmentalists and government agency staff.

- **Public awareness** –Increased knowledge about the Bay watershed from both students and the general public was noted both as a success itself and as a reason for other successes. Public support for cleaner Bay initiatives has resulted in measures, both regulatory and voluntary, which benefited Bay watershed restoration efforts.

High levels of successes noted were:

- **Toxic reductions**—reductions in the amount of chemical contaminant entering the Bay watershed, achieved largely through regulation and voluntary cooperative efforts involving industry.
- **Science and technology**—science is the foundation of the Bay restoration efforts. The five year study from the 1970s and early 1980's has been supplemented by many others, all of which have led to increased scientific knowledge about the Bay and improved technology for improving water quality.
- **Chesapeake Bay Program itself**—the large number of dedicated people from the various agencies who participate in a multitude of committees under the umbrella of the Bay Program have worked hard to achieve improvements in water quality and living resources.
- **Multi-jurisdictional cooperation** –the unique multi-state Agreement that forms the backbone of the Bay Program brings representatives from the 6 signatories, from a host of federal, state and local agencies, and the public together to work cooperatively on Bay issues.
- **Regulations** –regulations as varied as the phosphate ban and the rockfish ban have been enacted to improve water quality and living resources in the Bay watershed.
- **Local watershed focus/tributary team approach** –with the 1992 Amendment to the Bay Agreement, the tributary team approach was adopted, moving restoration efforts beyond the main stem of the Bay to all of the streams and rivers flowing into the Bay. The development of locally focused groups working on smaller, defined watersheds has improved public awareness of water quality issues and promoted improved conditions in local waters.
- **Looking at the Bay as an ecosystem**—understanding of the complex interdependence of the Bay watershed has been enhanced by the Bay Program. There is a general understanding that problems do not exist in isolation, but as part of an overall system which needs improvement.

Reasons for successes:

- **Public awareness/education**—the public understands and supports public measures undertaken to protect the Bay watershed

- **Regulations**—federal, state, and local regulations have been beneficial in restoration efforts
- **Multi-jurisdictional cooperation**—across jurisdictional lines cooperation has been beneficial in understanding issues and promoting solutions
- **Voluntary efforts**—Agreement signatories voluntarily chose to participate in restoration actions, which led to further voluntary efforts from industry, farmers, and the public.

2. Challenges, Failures of the restoration of the Chesapeake Bay to Date

Please note that issues listed as successes may also be listed as failures, sometimes by the same people. Many people see the need for continuing efforts to make significant progress. "Swimming upstream against a current and holding our own" was an analogy used frequently in discussing failures.

Number one failure:

- **Managing growth**—managing growth is an extremely broad topic, including urban revitalization issues, low-impact environmental design for new development, transportation, preservation of agricultural and forest lands, conserving stream corridors for wildlife, and a host of others. As these land use issues touch our daily lives, they were mentioned by many--environmentalists who feel the need to preserve habitat areas, by farmers who feel threatened by encroaching suburban development, and by urban government representatives who worry about accelerating urban blight.

Other Failures:

- **Nutrient reductions**--from point source and non point source, including sediment
- **Living resources**--including oysters, fishery management, wetland losses
- **Public awareness/education** --includes individual responsibility, education for behavior change, increased efforts with teachers and students, more hands-on activities,
- **Lack of vision**—a need to know what the long term goals are, how we will know when we have reached them, who we are saving the Bay for, what the Bay is

Failures also mentioned:

- **Science/technology**--science doesn't provide information needed now; new technologies are needed to deal with future restoration efforts
- **Lack of regulations/enforcement**--questionnaire respondents and focus group participants, especially, were eager to have more punitive measures applied uniformly across the watershed

- **Need for ecosystem management**—broadening the focus from single species to multi-species, from the main stem Bay to the whole 64,000 square mile watershed
- **Local watershed management**—need to bring water quality issues to local streams and rivers in people's backyards so they have a direct connection to the positive results of restoration.

Reasons for Failures

Number one reason for failures:

- **Lack of political will**—government officials are decried for being unwilling to make the tough decisions necessary for effective restoration

Other reasons for failures:

- **Need more knowledge**--includes scientific understanding, educating the public, individual responsibility
- **Lack of vision**—no understanding of what the long term goals are and how we will know when they are reached.
- **Better articulation of goals and connection to needed actions**—Program goals need wider understanding, especially about how a specific action will accomplish a goal
- **Enhanced regulations, enforcement**—need to make scofflaws take environmental issues seriously
- **Property rights ethic**—the philosophy of " I can do what I want with my land" is perceived to stand in the way of improved environmental quality

3. Emerging Issues for the 2000 Chesapeake Bay Agreement

The number one emerging issue:

1. **Managing growth** (by 54 of 95 interviews, 15 of 18 focus groups, 73% of questionnaire respondents). Managing growth is an extremely broad category and includes issues such as:
    - Population growth—concern about the large increase in people predicted to live in the watershed in 20 years
    - Sprawl and its effects—continuing conversion of open spaces, forests, and farmland into housing developments and associated transportation problems
    - Land use—how different kinds of land use relate to one another and the need for long-term and regional planning by local governments
    - Urban revitalization, retrofit of existing infrastructure—focus on maintaining livability of and decreasing pollution from existing urban areas
    - Identifying critical areas which should be protected—critical natural resource areas, scenic areas, habitat areas, recreation areas, farmland, forest
    - Moving toward land trusts and conservancies—promote the use of land trusts to protect and manage locally designated critical areas

Ranking of other emerging issues:

2. **Education for behavior change** (by 16 of 95 interviews, 13 of 18 focus groups, 61% of questionnaire respondents)
    - Public education—provide information and training for teachers, activities and internships for students
    - Better communication, need to change personal behavior to effect lasting change
    - Deal with role of humans in the ecosystem more effectively

3. **Nutrient reductions/ maintain the cap** (by 33 for nutrient reduction, 22 for maintain cap of 95 interviews, 10 of 18 focus groups, 43% for nutrient reduction, 40% for maintain cap of questionnaire respondents)
    - Non point source of nutrients—nutrients from lawns, parking lots, golf courses, agricultural fields, ball fields, commercial buildings and industrial sites
    - Strengthen pollution prevention—it is more effective and cheaper to prevent pollution than to restore lands or waters once polluted
    - Monitor our progress, look at effects on a long term basis
    - Sediment behind dams on Susquehanna—these dams are estimated to trap 70% of the sediment flowing downstream. Only 15 years of storage capacity exists behind the dams. What will happen when the storage areas are filled?
    - Dredging—dredging is a difficult political issue; the spoil is considered as dangerous pollution by the general public who fight efforts to designate spoil sites; dredging also has ramifications for sedimentation of the Bay

4. **Living resources numbers and habitat** (by 30 of 95 interviews, not a frequently mentioned issue for focus groups, 46% of questionnaire respondents)
    - Invasive species, exotic species—everything from zebra mussels to snow geese are invading the waters and nearby lands in the Bay watershed. What do we do about it?
    - Wetland losses—wetlands are critical areas for nutrient management as well as wildlife habitat; losses continue especially with non-tidal wetlands
    - Fisheries management—fish have been managed by single species and for their value as harvest, both for commercial and recreational fishermen. Should they be managed as a resource also?
    - Riparian buffers—reduce nutrients and provide habitat for living resources, reduce water temperature in streams, stabilize stream banks and prevent erosion.
    - Multi-species management—a more comprehensive approach to species interaction in the ecosystem

5. **Focus on local watershed management** (by 14 of 95 interviews, 6 of 18 focus groups, not a choice for questionnaire respondents)

   - Use watershed approach, like tributary teams—involve people in their local watershed so they make a personal connection to improved water quality
   - Focus on non-tidal areas—these areas are often far removed from the main stem of the Bay and should be protected for their local environmental value, not just their value downstream
   - Involve local government in watershed management—protecting and enhancing streams in a local jurisdiction with the help of local government promotes support for water quality initiatives from citizens and government officials

6. **Governance** (by 10 of 95 interviews, 6 of 18 focus groups, not a choice for questionnaire respondents)

   - Include local government in policy making, since local government often implements policy decisions
   - Involve federal programs to a greater degree—bring agencies like transportation and housing into the Program
   - Make industry a stakeholder—enhance outreach to industry for both pollution prevention and to work for effective technology to promote water quality goals

7. **Need to articulate a vision** (by 10 of 95 interviews, 6 of 18 focus groups, not a choice for questionnaire respondents)

   - Create a long-term as well as a short term vision
   - Need to know what we are trying to achieve and when we have reached that goal

4. Effectiveness of Measurements in the 1987 Chesapeake Bay Agreement

- Interviewees were most positive about the effectiveness of the measures
- Questionnaire respondents were mildly positive about the measurements
- Focus group participants were largely negative, with the majority of groups indicating they were "not sure" if the measurements were appropriate or useful to the general public
- All three input methods indicated a level of confidence that the measures were supported by good science

5. How Issues are Moved onto the Bay Program Agenda

- Those knowledgeable about the Program feel that issues can be raised by many different people representing a wide range of constituencies
- Those with limited knowledge of the Program indicate a belief that Program subcommittees move issues forward
- Those with little knowledge of the Program are frustrated by their perceived inability to bring issues forward

6. Effectiveness of Chesapeake Bay Program

A. Implementable policy

Strong opposing points of view emerged:

- Multi-jurisdictional cooperation is good but—it results in a very cumbersome structure
- Once a decision is made it will be carried out but—implementation is very costly and necessary resources may not be available
- Program structure is cumbersome but—this structure is necessary in a consensus based organization

Agreement exists on:

- There is a high degree of commitment to the Program
- Need to improve implementation
- Inclusive nature of tributary teams is effective
- Central role of science in developing policy

B. Educating and involving the general public

Effective methods of communication are:

- *Bay Journal*
- Chesapeake Bay Foundation report card
- Hands on programs at local level
- CRIS line
- Media

While public awareness is growing, there is a clear need to do more:

- To cause people to change their daily behavior
- To explain the complex problems and interconnections in a clear fashion so that everyone can understand
- To put more resources into communication
- To utilize the 1998 Education Directive well

C. Communication and cooperation among program participants

Opposing points of view are:

- Bay Program is inclusive but—decision-makers are not at the table and decisions are delayed by the need to consult with others not present

- Program participants have a high level of commitment but—parochialism gets in the way of achieving progress on goals
- Program participants try to work together but—results may be less than satisfactory

D. Program management

High degree of concern was expressed about:

- Reporting to the public
- Allocation of funding
- Ponderous process for receiving grants

E. Funding concerns

Concern was expressed about:

- Whether resources were allocated by policy priorities
- Whether resource allocations perpetuate established subcommittees rather than funding new ideas
- Whether states use Bay Program money effectively

7. Proposed Changes to the Chesapeake Bay Program

Many of the changes focused on the need to inform and educate the public to promote behavior changes and individual responsibility. Recurring themes were:

- Involve the public directly
- Report information in a manner understandable to the public
- Increase emphasis on education in schools

Other changes echoed ideas discussed in "emerging issues":

- Deliver programs at watershed level more effectively
- Involve local government more, especially in implementation
- Have clear measures of success

Suggested changes to the program structure were:

- Emphasize strong leadership from Executive Council
- Develop facilitative, problem solving approach that won't be bogged down by poor meeting management
- Revise subcommittee structure to use task-focused, issue-based subcommittees
- Improve budget coordination by tying money spending to program goals