

SETTING GOALS TO PREVENT & REDUCE TOXICS TO THE CHESAPEAKE BAY

*A Working Session
for Industrial, Federal & Wastewater
Treatment Plant Facilities*

PROCEEDINGS

*A Supporting Document for the
1999 Toxics Reevaluation & Revision*

**Baltimore Gas & Electric Company
Ft. Smallwood Road Complex
Baltimore, Maryland**



Chesapeake Bay Program

Wednesday, July 21, 1999

The Chesapeake Bay Program is a unique regional partnership that has been leading and directing restoration of the Chesapeake Bay since 1983. The Bay program partners include the states of Maryland, Pennsylvania and Virginia; the District of Columbia; the U.S. Environmental Protection Agency, representing the federal government; the Chesapeake Bay Commission, a tri-state legislative body; and participating citizen advisory groups.

Introduction

In 1994, the Executive Council of the Chesapeake Bay Program adopted the *Chesapeake Bay Basinwide Toxics Reduction and Prevention Strategy*. The goal of the strategy is “a Chesapeake Bay free of toxics by reducing or eliminating the input of chemical contaminants from all controllable sources to levels that result in no toxic or bioaccumulative impact on the living resources that inhabit the Bay or on human health.” Since 1994, the Bay Program has made progress toward achieving this goal, however, challenges remain.

The Chesapeake Bay Program is currently reviewing and revising the *1994 Chesapeake Bay Basinwide Toxics Reduction and Prevention Strategy* and, through a series of Critical Issue Forums and roundtables with stakeholders, developing directions and actions to take on chemical contaminant-related issues in the year 2000 and beyond. Additionally, the Bay Program is developing a new Chesapeake Bay Agreement for the year 2000 and beyond.

As specified in the 1994 strategy, pollution prevention by industrial and government point sources plays a key role in helping the Chesapeake Bay Program achieve its goal of a “Bay free of toxics”. The Bay Program is committed to working in partnership with industry, government and environmental groups to achieve a series of pollution prevention-related commitments. Leading up these voluntary initiatives is the Bay Program’s Toxics Subcommittee and its Pollution Prevention Workgroup. The Subcommittee is responsible for providing an overall direction on how to achieve the goal of a “Bay free of toxics”, while the Pollution Prevention Workgroup, whose membership consists of representatives from industry and federal, state, and local governments, helps to define specific pollution prevention activities that should be taken to achieve the goal.

The first in the series of critical issue forums, “Achieving a Toxics Free Bay: The Role of Point Sources”, was held on June 22, 1999 at the Top of the Bay Officers’ Club at Aberdeen Proving Ground in Maryland. The purpose of the forum was to give stakeholders an opportunity to provide input on the direction the Chesapeake Bay Program should take on issues related to the prevention and reduction of chemical contaminants from point sources. The proceedings of that meeting are available from the Chesapeake Bay Program Office by calling 1-800 YOUR BAY.

As a follow-up to that forum, three roundtables were held for the purpose of seeking input on specific goals the Bay Program should consider for the new toxics strategy from three target audiences: point sources (industrial, federal and wastewater treatment plant facilities), environmental organizations and governmental facilities. On July 21, a working session, “Setting Goals to Prevent & Reduce Toxics to the Chesapeake Bay”, was held for industrial, federal and wastewater treatment plant facilities. The purpose of the working session was to provide a venue for representatives from this stakeholder

group to brainstorm about and begin to draft goals for inclusion in the new toxics strategy and Chesapeake Bay Agreement.

This document summarizes the proceedings of the working session, "Setting Goals to Prevent & Reduce Toxics to the Chesapeake Bay: A Working Session for Industrial, Federal and Wastewater Treatment Plant Facilities", co-sponsored by the Chesapeake Bay Program and the Alliance for the Chesapeake Bay (see Appendix A for the meeting agenda). The ideas and goals resulting from this session will be taken into consideration by the Chesapeake Bay Program for the development of the new toxics strategy and Bay Agreement.

Reevaluation & Revision Process

Kelly Eisenman, U.S. EPA's Chesapeake Bay Program Office, explained how the Working Session fit into the overall process the Chesapeake Bay Program is undertaking for the reevaluation and revision of the 1994 toxics strategy. She reported that, in addition to the Working Session with industry, federal facilities, and wastewater treatment plants, two roundtable discussions will be held as follow-up discussion to the initial critical issue forum. The two roundtable discussions, similar in nature to the Working Session, will be held with representatives from environmental organizations and with governmental agencies. Dates for these events have yet to be determined.

Additional critical issue forums will also be held as part of the Bay Program's strategy reevaluation and revision process. Topics of the other critical issue forums include non-point sources of chemical contaminants (to be held on August 17, 1999) and scientific information and data (date to be determined) and will include participation from a variety of stakeholder groups. The results of these meetings will be compiled with the results of the Point Source Forum and the Working Session and will be presented to the Bay Program for consideration for inclusion in the new toxics strategy and Chesapeake Bay Agreement. In some cases, further discussions with stakeholder groups may be necessary before goals are set.

Results of the Point Source Forum

Allison Wiedeman, U.S. EPA's Chesapeake Bay Program Office, reviewed the results of the Point Source Forum. She reported that seven pervasive themes were identified during the course of the first critical issue forum, "Achieving a Toxics Free Bay: The Role of Point Sources". Those themes were:

- 1) The need to establish and maintain partnerships;
- 2) Closing the loop on recycled products. This includes creating both a "green" market and the concept of Industrial Symbiosis (one company's waste is another's raw material);
- 3) The need to determine and then prioritize to fill data gaps;
- 4) Continue and enhance education outreach programs; and
- 5) The need to engage Pretreatment Programs.

Two other concepts that were explored throughout the forum but need additional stakeholder input before their inclusion in a new strategy or new agreement were

- 6) Continual improvement toward zero, and
- 7) Geographical targeting and basin specific toxic reduction strategies.

Ms. Wiedeman indicated that these themes will be incorporated into all of the roundtable discussions, including the Working Session, planned as follow-up meetings to the Forum.

Actions to Prevent & Reduce Chemical Releases

The themes identified at the Forum were distilled into five categories that were then incorporated into the Working Session and served as a starting point for identifying actions to prevent and reduce chemical releases the Bay Program and point sources might consider incorporating in the new toxics strategy. The five categories were:

- ◆ Source Reduction (i.e., reducing or eliminating chemicals/wastes at the source rather than using treatment methods at the end)
- ◆ Education & Outreach
- ◆ Watershed Planning (i.e., implementing and targeting management actions to protect the Bay watershed)
- ◆ Data & Information
- ◆ Partnerships

Based on these categories, participants were asked to brainstorm answers to the following questions:

- ◆ How can we achieve a Bay free of toxics through Source Reduction?
- ◆ How can we achieve a Bay free of toxics through Education & Outreach?
- ◆ How can we achieve a Bay free of toxics through Watershed Planning?
- ◆ How can we achieve a Bay free of toxics through Data & Information?
- ◆ How can we achieve a Bay free of toxics through Partnerships?

Participants' answers to these questions are listed in Appendix B. It should be noted that representation from federal facilities was lacking at the Working Session and that representation from municipal wastewater treatment plants was minimal. Consequently, the responses to the above questions and the goals listed below primarily reflect the viewpoints of the industry representatives. Every effort to ensure adequate representation by federal facilities and municipal wastewater treatment plants will be made for any follow-up meetings that occur as a result of the Working Session.

In order for all participants to have the opportunity to offer input for each of the questions, the carousel brainstorming technique was used. The group was divided into five smaller groups, with each smaller group asked to brainstorm for five minutes answers to one of the questions listed above. After five minutes, the smaller groups were then asked to brainstorm answers to the next question, until all questions had been addressed by each group.

Prioritizing Actions

After reviewing the results of the brainstorming session with the entire group, each participant was given the opportunity to “vote” (using stickers) on those items within each question that he or she considered to be of highest priority and on which the Bay Program should focus its efforts. The voting helped to provide a focus for the many topics listed for each question and allowed the group to address a manageable number of items during the short time allotted to the Working Session. The results of the voting can be seen in Appendix B; bold answers indicate those topics that received the most votes.

Setting & Drafting Goals

Once the results of the voting were reviewed, the group was divided into five smaller groups, different from those formed for the brainstorming session. These five groups were asked to begin to draft goals for the items that were identified as the highest priority. Once the goals were presented to the entire group, they were discussed and feedback was solicited. The results of the goal drafting sessions and the resulting comments are provided below and will be provided to the Chesapeake Bay Program for consideration for inclusion in the new toxics strategy.

Source Reduction

Source Reduction for Consumers

GOAL: Industry will promote consumer and retail source reduction to their employees, suppliers and communities, and will work with those audiences to make product disposal and reuse more convenient. Steps to take to implement this plan are:

1. Increase awareness by quantifying data on non-industrial contributions;
2. Increase convenience of household hazardous waste exchanges, reuse, recycling, material substitution, encourage ride sharing/public transit, etc.;
3. Develop a “green seals” program that would easily identify those products that are household hazardous wastes (coordinating with existing and/or evolving labeling programs such as the U.S. EPA’s Office of Pollution Prevention and Toxics environmental labeling initiative) ; and,

4. Develop programs at industries that promote source reduction to their own employees, operations, and suppliers.

As part of this process, the following actions are recommended:

1. Add community awareness and outreach as an element of *Businesses for the Bay*.
2. Develop fact sheets on what businesses can do to prevent pollution at the source.
3. Quantify non-industrial contributions (i.e., non-point source) to the Chesapeake Bay and its rivers.
4. Develop a mass-media awareness campaign to promote source reduction.
5. Identify products that may be considered hazardous and develop convenient disposal for those products. Consider encouraging product developers to take back the wastes that result from use of their products.

Information Networks

GOAL: Create standardized networks of information, services, assistance, mentoring, etc. Examples include web-based information links and services, and a network of mentors.

Regulatory Flexibility

GOAL: Make regulatory changes or adjustments at the federal, state and local levels which will allow regulatory flexibility to promote multi-media source reduction. Flexibility could be incorporated into fees, inspections, reporting, trading credits, etc.

Group Comments on Source Reduction Goals

Setting Quantitative Chemical Reduction Goals:

- Reduction goals for industry are lacking from this group's presentation.
- Industry will participate to achieve reduction goals but it wants to promote consumer/retail approaches as well.
- Performance-based goals for industry to achieve should be set.
- Look at existing strategy goals and update them - were they accomplished and what else can we do? **ACTION:** Set up another meeting to evaluate and update the existing goals in the strategy. (See Decision below.)
- Set facility-by-facility goals to voluntarily reduce chemicals that are problematic in specific areas of the Bay.
- Working on a voluntary basis would create more of an opportunity for industry and would allow more flexibility than a regulatory basis or Total Maximum Daily Loads.
- Assess reduction in ambient concentrations resulting from industry's chemical reduction efforts.
- Need to directly relate to specific chemicals so they can be measured and

- determine how much impairment they are causing.
- The addition of new industries to Toxics Release Inventory (TRI) database will make it more difficult for the Bay Program to quantify reductions.
- No need to come up with reduction goals unless there is a proven cause and effect relationship shown. Otherwise, it's difficult to determine if industry actions are causing a problem and what exactly needs to be done to correct this problem.

Involving Consumers in Source Reduction:

- Industry is doing its part and continues to do its part, but there are other groups that need to join in source reduction efforts.
- Industry will participate to achieve reduction goals but it wants to promote consumer/retail approaches as well. The consumers avenue is where actions should be focused now – need to look towards other areas.
- Need to quantify data to identify where problems lie. For example, are communities a significant contributor to the problem?
- Develop easily recognized labels to identify those produce that contain potential household hazardous wastes.
- Rank products so consumers can easily identify which products are the most “environmentally friendly”.
- Provide consistent information to the public (e.g. wastewater vs. solid waste disposal).

DECISION: The group agreed that the Chesapeake Bay program should host a follow-up meeting to this Working Session with representatives from industry, federal facilities and wastewater treatment plants to discuss the development of quantitative reduction goals for these stakeholders to achieve. The results of such a meeting will be presented to the Chesapeake Bay Program for their consideration for inclusion in the new toxics strategy.

Communication & Outreach

Technology Transfer

GOAL: Free pollution prevention technical assistance shall be made available to all businesses (and possibly others) located within the Bay watershed by the year ????.

Developing a Communications Campaign

GOAL: Design and implement a common public education campaign by the year ???? which contains the following elements:

- communicates an agreed upon message;
- identifies specific messages and themes for programs;
- makes a connection between the Chesapeake Bay Toxics of Concern and consumer products;
- makes specific recommendations (product substitution, use, disposal);
- use of a variety of high visibility media outlets and repetition;
- use high level spokespersons; and,
- involves communities in the campaign

Businesses for the Bay

GOAL: Continue to use *Businesses for the Bay* to promote pollution prevention, provide assistance through its Mentor Program and to recognize industry successes.

GOAL: Expand *Businesses for the Bay* to include ALL pollutants, not just toxics.

GOAL: ## number of companies to join *Businesses for the Bay* (or signed a pledge) by the year ????.

Economic Development

GOAL: Educate economic development offices at all levels of government about the importance of environmental considerations in community planning issues.

Group Comments on Communication and Outreach Goals

- Identify key themes or specific messages (e.g., point vs. nonpoint sources) of the Chesapeake Bay Program and *Businesses for the Bay* before designing and implementing a campaign.
- *Businesses for the Bay* participants could sign a pledge committing to certain management systems or approaches (i.e., continual improvement toward zero, training staff, soliciting staff input) which would require signature from top officials.

- Go to neighborhoods and community groups to promote specific practices. Perhaps develop a “Citizens for the Bay” program where citizens sign a pledge to implement good environmental practices in their homes. Explore using/promoting alternative household products.
- Involve CEOs in *Businesses for the Bay*.
- Clearly identify *Businesses for the Bay* purpose/message for each size business, particularly for small businesses so that the goals are more relevant to them.

Watershed Planning

Map Major Source Sectors

GOAL: Map major source sectors (point and non-point sources, including air sources) with the potential to impact *Areas of Emphasis* or *Regions of Concern* and set goals for impact reduction. Industry will actively participate in the source sector analysis.

GOAL: Develop pollution prevention plans to reduce releases from those point sources that contribute releases of problem chemicals.

“Smart Growth”

GOAL: To promote “smart growth” concepts to ensure there are no future impacts in the Bay, we commit to:

- support siting of new facilities in brownfields to the extent possible;
- work towards zero toxics release or discharge for new industries or facilities in the Bay watershed to the extent possible; and,
- promote telecommuting to reduce impervious surface created by infrastructure (i.e., lots, buildings) and reduce transportation.

Working with Existing Groups

GOAL: Educate existing or newly created watershed groups to inform communities about the status of chemical contaminant impacts in the Bay and stimulate actions related to toxics. Industry will support and participate in these groups and will provide advice and information on understanding problems and solutions in *Areas of Emphasis* or to anticipate future pressures on the watershed in the *Areas with Low Probability for Effects*.

GOAL: Continue toxics prevention, reduction and remediation activities currently being implemented in the *Regions of Concern* and continue to participate in and evaluate efforts to restore these areas.

GOAL: Industry will play a leadership role in encouraging/recruiting participation from other business sectors in particular watersheds of interest.

Non-Toxic Products

GOAL: Promote development of products that are non-toxic when used or disposed.

Group Comment on Watershed Planning Goals

- Share data, coordinate and collaborate with Total Maximum Daily Load (TMDL) programs and efforts.
- Prioritize areas within the characterized segments of the watershed. Look at a smaller geographic areas for more detailed characterizations.
- Work with local communities to encourage clustered development/siting of industries for the purpose of promoting Industrial Symbiosis (one industry's by-product becomes another's raw material).
- Take into consideration the connections between brownfields and environmental justice issues. Work to site businesses in locations that meet the needs of industry but still address environmental justice concerns. Ensure that all partners are included in the process. Possibly host a follow-up meeting to look at these issues.
- Map locations of *Businesses for the Bay* participants and actively solicit geographic areas where participants are lacking. Alternatively, sort the participants list by industry sectors and target those sectors not represented for participation in *Businesses for the Bay*.

Data & Information

Data Collection & Analysis

GOAL: By the end of the year ???? develop and implement Quality Assurance/Quality Control (QA/QC) standards for toxics data collection, analysis and database structure and management to assure compatibility and data quality.

GOAL: By the end of 2000, reevaluate applicability of the Toxics Release inventory (TRI) database as a tool for evaluating toxics loadings.

GOAL: Continue to prioritize the Chesapeake Bay Toxics of Concern based on ambient concentrations in the watershed.

GOAL: Beginning in 2000, initiate activities in *Regions of Concern* or *Areas of Emphasis* to identify and quantify the sources of loads to those areas. The completion date should be within five years.

GOAL: In the *Areas with Insufficient or Inconclusive Data*, conduct research to fill in data gaps for ambient conditions. The completion date should be within five years.

Sediment Data Collection & Analysis

GOAL: Initiate sediment data collection and analysis framework to characterize the contribution of legacy pollutants to the Chesapeake Bay toxics loading by the end of 2000.

GOAL: Beginning in 2001, implement sediment data collection and analysis program to identify selected areas for further study. Study will be completed by 2006.

Group Comments on Data & Information Goals

Industry's Role in Data & Information Efforts:

- Voluntarily conduct monitoring at industrial and municipal outfalls in an effort to quantify improvements made to ambient conditions as a result of facility actions.
- Assist in data collection efforts, especially for sediment data. Industry has already collected a large amount of data that could be shared with others. However, industries may be reluctant to share their data with regulators.
- Data sharing may have legal issues associated with it, so industry could offer its experience and expertise in addressing these legal concerns.
- Peer review by industry before chemical reporting data is accepted and published. Conduct QA/QC reviews of data.
- Educate industry about the importance of accurate reporting.
- Help ensure that data collection and analysis training is consistent and help to develop a standard protocol.

Other Comments:

- How do you define an impairment without a standard (an issue with TMDLs)? Need to develop better standards.
- Look at the areas of concern and the associated problem chemicals, then work with industry to reduce loadings.
- Use the Toxics Characterization Report to target the chemicals that are potentially causing effects on living resources for reduction efforts rather than using the Toxics of Concern List.

Partnerships

Make Decisions Based on Sound Science

GOAL: Form partnerships between industry and public (i.e., government, citizens, academia, environmental groups, etc.) where each participant feels equally empowered.

GOAL: Communicate actions, decisions and information of these partnerships to the general public and governmental decision makers, and create "local"

(i.e., watershed, political jurisdiction) partnerships to address environmental problems based on scientific information. Involve existing organizations and structure.

GOAL: By 2005, develop local partnerships in 90% of the major watersheds within the Chesapeake Bay watershed.

Regulatory Flexibility for Partners

GOAL: Establish regulatory flexibility (such as EPA's Project XL or similar programs) for those partners with innovative approaches to toxics problems. The Chesapeake Bay Program should serve as a facilitator for this process.

GOAL: Develop Environmental Management Systems (EMS) and regulatory flexibility partnerships that are tied in with industry and public partnerships and utilize stakeholder groups.

GOAL: By 2002, complete a study identifying the barriers to regulatory flexibility and submit the results for stakeholder review. Promote regulatory flexibility if it is deemed to be feasible/appropriate.

CEO/Decision-Maker Involvement

GOAL: Identify incentives for CEO/decision-maker involvement. For example, explain that a "Bay free of toxics" can translate into revenue, positive recognition, advertising, etc.

GOAL: By 2001, hold a forum for CEOs/decision-makers with the Chesapeake Executive Council.

GOAL: By 2001, 33% of *Businesses for the Bay* members's CEO/decision-makers will sign an agreement or environmental policy statement on the Chesapeake Bay.

GOAL: By 2003, develop regulatory flexibility incentives where missing.

Motivating Factors for Stakeholder Participation in Partnerships

GOAL: Work with each stakeholder group to identify and develop motivating factors to increase their participation with various toxics-related issues.

GOAL: Annually sponsor local events (such as fairs, meetings, luncheons, etc.) which facilitate an exchange of information.

Group Comments on Partnership Goals

- Build on existing partnerships (i.e., tributary strategy teams) and add new partnerships only where needed.
- Ensure that toxics issues are included on the agendas of watershed groups.

Actions & Next Steps

The results of this Working Session will be distributed to all participants for their comment and review. It will also be distributed to individuals who were invited to but could not attend the Working Session so that their comments and insights can be solicited. Comments will be compiled and will be included in an addendum to these proceedings. These proceedings will not be made widely available until the other roundtable meetings have been held.

The group agreed that the Chesapeake Bay Program should host a follow-up meeting to this Working Session with representatives from industry, federal facilities and wastewater treatment plants to discuss the development of quantitative reduction goals for these stakeholders to achieve. The results of such a meeting will be presented to the Chesapeake Bay Program for their consideration for inclusion in the new toxics strategy and the new Chesapeake Bay Agreement.

Due to time constraints, measurement of the goals presented above was not discussed. The group also agreed that additional discussions will be needed to determine the best measures of success for these goals, and recommended that the Bay Program host these discussions.

APPENDIX A: Meeting Agenda



Setting Goals to Prevent & Reduce Toxics to the Chesapeake Bay

A Working Session for Industrial, Federal & Wastewater Treatment Plant Facilities

Sponsored by:
Chesapeake Bay Program
Alliance for the Chesapeake Bay

Hosted by: Baltimore Gas & Electric Company
Ft. Smallwood Road Complex
Conference Rooms 1, 2 and 3
Baltimore, MD

Wednesday, July 21, 1999

Purpose: *To set specific goals to voluntarily prevent and reduce chemical releases from industrial, federal, and wastewater treatment plant facilities to include in the new Toxics Strategy.*

AGENDA

8:30 AM Registration

9:00 Welcome Bette Bauereis
Director, Environmental Affairs
BGE

9:10 Introductions Kelly Mecum
Businesses for the Bay Coordinator
Alliance for the Chesapeake Bay

9:25 Results from the Point Source Forum Kelly Eisenman &
Allison Wiedeman
Coordinators
Chesapeake Bay Program

Kelly and Allison will describe how the Working Session fits into the Bay Program's series of critical issue forums and will review the results of the Point Source Forum with the group.

- 9:55 **Actions to Prevent & Reduce Chemical Releases Group**
 The Group will brainstorm to identify actions they can take in the following five areas to prevent and reduce chemical releases:
1. Source Reduction
 2. Communication & Outreach
 3. Watershed Planning
 4. Data & Information
 5. Partnerships
- 10:30 **Break**
- 10:40 **Prioritizing Actions Group**
 The group will discuss and prioritize the ideas and actions they identified in the previous session.
- 11:30 **Setting & Drafting Goals Group**
 Based on the priorities identified above, the Group will begin to set and draft goals to prevent and reduce chemical releases from industrial, federal, and wastewater treatment plant facilities to be included in the new Toxics Strategy.
- 12:15 **Lunch (Provided)**
- 1:00 **Discuss & Achieve Consensus on Goals Group**
 The Group will discuss and come to consensus on the goals they drafted in the previous session.
- 2:15 **Break**
- 2:30 **Measuring Progress Toward the Goals Group**
 The Group will discuss how to measure progress toward achieving the goals they drafted, what data would be required for the measurement, and deadlines for achieving those goals.
- 3:30 **Review Results Kelly Mecum**
- 3:45 **Adjourn**

APPENDIX B

Actions to Prevent & Reduce Chemical Releases: Brainstorming Results

Participants were asked to brainstorm answers to the following questions based on the five themes identified at the Point Source Forum:

- ◆ How can we achieve a bay free of toxics through Source Reduction?
- ◆ How can we achieve a bay free of toxics through Education & Outreach?
- ◆ How can we achieve a bay free of toxics through Watershed Planning?
- ◆ How can we achieve a bay free of toxics through Data & Information?
- ◆ How can we achieve a bay free of toxics through Partnerships?

The results of the carousel brainstorming session are listed here. Those responses listed in **bold** are those that received the greatest number of “votes” by participants as being the most important issues on which the Bay Program should focus.

How can we achieve a Bay free of toxics through Source Reduction?

- Financial incentives such as tax breaks or permit fees
- Recognition and customer awareness of source reduction activities
- **Regulatory flexibility - testing of new methods/technology, credits**
- **Technology/information exchanges, especially for small and medium-sized businesses**
- **Work with consumers on issues such as vehicle air emissions, POTWs, household hazardous wastes, solid wastes**
- Commercial offices -- chemical and energy use
- “Green” programs -- voluntary commitments and public recognition
- Community clean-ups, household hazardous waste collections
- Enhanced environmental education -- look at the next step past recycling
- Financial incentives for public -- bottle deposits, energy, etc.
- Product availability & green labeling
- Legacy pollutants
- Sell the idea of mentoring to CEOs
- Develop a CEO Advisory Board
- Centralized Source Reduction Database with business-to-business idea exchanges
- Infrastructure for alternative fuels
- Environmental Management Systems
- Recognition and flexibility by regulators
- Public awareness & recognition of good deeds
- Watershed trading programs; harness market for trading
- CEO involvement
- Firmly established targets -- overall and for specific chemicals
- Technology base, clearinghouse

- Research & development on environmentally-friendly product design; identify markets for those products
- Industrial symbiosis
- Environmental Management Systems & continual improvement (i.e., Responsible Care, ISO)
- Goals of Zero
- Green labeling -- standardize chemicals used
- Material substitution
- Process elimination
- Zero is non-realistic
- Zero negative effects past the Bay's ability to assimilate
- Bay could be a source itself - limit dredging
- Realistic pre-treatment programs for residential and commercial users
- Regional pre-treatment approaches and shared responsibility
- "Septic-friendly" products and labeling

How can we achieve a Bay free of toxics through Communication & Outreach?

- Promote pollution prevention
- Are we "preaching to the choir" through *Businesses for the Bay*?
- Spokesperson, public service announcements, kiosks, internal and external (i.e., customers) corporate communications
- Primer for public on "What is a Toxic?"
- Greater tri-state gubernatorial effort to promote Bay Program goals/toxics reductions
- Better prioritization of toxics issues (pollutants, concentrations)
- Involve academia
- Better coordination between environmental organizations and industry in communicating industry success
- Environmental advisory boards in community
- **Technology transfer opportunities -- forums for industry sectors**
- Broader awards program for civic groups, individuals, etc.
- Flag to display at facility to show commitment
- Environmental education for youth/teachers - requires stakeholder input and balanced message
- More brochures
- **Use of TV and other media - less reliance on printed material**
- **Greater emphasis on economic value (to business & community, rate payers) of cleaner water**
- Waterfront community outreach programs
- Focus promotion of *Businesses for the Bay* and other communication to geographic area and specific sectors
- Strengthen partnerships with local governments
- **Train local governments in planning environmentally-friendly economic development**

- Solicit input from more industries through paper or electronic format in addition to meetings
- Simplify missions & goals of the program, particularly for smaller businesses
- Data interpretation very important (graphics)

How can we achieve a Bay free of toxics through Watershed Planning?

- Identify toxic load in watershed
- Zones - organizations
- Sustainable development
- Identify point sources and non-point sources
- Local organization meeting with goal in mind
- Stakeholder coordination
- Local awareness campaigns (media)
- Runoff from various lands
- **Consider how airsheds affect watershed (multi-media)**
- **Identify significance of sources' contributions**
- **Provide incentives to "hot" areas to reduce releases**
- Balanced approach
- Plan for more green spaces and buffers
- Involve businesses and other communities (especially water communities) in planning process
- Develop watershed councils
- PR to local businesses to try to help local governments
- Increase and enhance membership in mentor programs
- Develop public information pieces (brochures, glossy handouts)
- Holistic planning, not just watershed planning
- Better education or links between toxics reduction and watershed planning
- Permittees within watershed should be involved in planning
- Trading credit within watershed; need facilitators
- Coordination between voluntary and regulatory efforts
- More education on what a watershed is and how public can play a role
- Incentives to locate (site) in less impaired areas
- Improve "brownfields"
- Balance conflict between point and nonpoint sources
- Balance between industry and residential
- Enhance watershed with green initiatives/areas (i.e., parks, trails, nature centers)
- **Smart growth and planning without compromising smart growth**
- Point and non-point source sensible solutions
- Fill data gaps based on sound science
- Expand population of businesses within each watershed or sub-watershed
- Ensure balance of stakeholder groups in watersheds (avoid lopsidedness)
- **Map major source sectors**
- Get greater public participation (school meetings, etc.)
- **Get existing watershed groups to incorporate toxics on their agendas**

How can we achieve a Bay free of toxics through Data and Information?

- Identify data gaps
- **Prioritize Toxics of Concern**
- Coordinating Toxics of Concern with Toxics Release Inventory list
- Identifying Geographical Area of Concentration
- Develop a funding mechanism for data collection
- **Identify additional data sources and/or load sources**
- Peer review
- Need baseline data
- Goals - where are we going? Concentrations
- Source of loading I.B. natural
- Multi-media
- What is free of toxics?
- Detection quantification
- Improve ongoing governmental data collection (i.e., Permit Compliance System)
- Explore/identify areas which would be more impacted by intrusive sampling or actions sediment
- Coordinate regulatory and voluntary program data gathering and share information
- Higher emphasis on validated data (than, for example, voluntary collection data by citizens)
- Working more toward a mass balance analysis
- Concentrate on toxics with most severe effects
- **Improve information on importance of legacy/sediment problem**
- Set up website to share information
- **Toxics Release Inventory (TRI) levels too high now (indicator reevaluation)**
- NPDES program to monitor for toxics
- **QA/QC standard in data bases**
- Look for opportunities to look for Bay info as part of NPDES process
- Coordinate mechanisms so Form 2C testing gets integrated into database
- Mass balance numbers
- Stimulate revenues to support analytical programs - use mitigation dollars for this
- Create database of toxic experts for Bay Program consultations
- What data/info would define a “healthy Bay”? What is a healthy Bay? Develop goals to achieve that.
- More info on total load instead of thresholds
- TMDLs - look for opportunities for permittees to fund characterization of waterbodies
- Highly technical data to be explained in layman’s terms
- Technology - better technology to remove toxics - modeling/technology transfer
- Confirmation/reliability of data
- Funding to ensure database maintenance

- Stormwater monitoring (data gap)
- Continued evaluation of “what is toxic”
- Evaluation of TRI as a valuable indicator
- Non-Detect issue
- **Look into other toxic “benchmarks” besides TRI**
- Testing validity evaluation
- Quantifying impacts of legacy pollutants
- More collecting of data through public, voluntary programs and determination of its reliability and use
- Increased emphasis on air media
- PCS improvement

How can we achieve a Bay free of toxics through Partnerships?

- Regulators be “partners” rather than “police” (same with environmental groups)
- Partner beyond industry and into residential/commercial
- Partner point and nonpoint sources with the public
- Improved alliances between business and environmental groups/citizens
- Symbiosis between industries
- Enhanced mentor programs, include technology exchange
- Partner between Bay “commercial users” and waste generators
- Include academic community
- Expand *Businesses for the Bay* program, maybe to different sectors
- Event forums to exchange ideas
- Partner with trade organizations
- Waste to one becomes raw material to another
- Partnership with local watershed groups
- **CEO involvement**
- Stakeholder involvement
- All sides give a little
- All sides participate
- Regulatory agencies encourage incentives
- Greater use of stakeholder groups on watershed basis
- Bring regulators and other stakeholders into facilities to understand point sources
- **Partnerships need to make informed decisions based on sound science, not politics**
- **Identify “motivating factors” to participation (i.e., goals and benefits). Example: leverage resources vs. litigation**
- Recognition for partners
- **Provide regulatory flexibility for partners with innovative approaches to toxics problems**

APPENDIX C



Setting Goals to Prevent & Reduce Toxics to the Chesapeake Bay Baltimore, Maryland July 21, 1999

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