



CHESAPEAKE EXECUTIVE COUNCIL

TOXICS 2000 STRATEGY

A Chesapeake Bay Watershed Strategy for Chemical Contaminant Reduction, Prevention, and Assessment

*I*n October 1994, the Chesapeake Executive Council adopted the *1994 Chesapeake Bay Basinwide Toxics Reduction and Prevention Strategy* in fulfillment of the 1987 Chesapeake Bay Agreement. In June 2000, the Chesapeake Executive Council adopted the Chesapeake 2000 Bay Agreement committing to fulfill the 1994 Toxics Strategy goal of 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.*” To ensure progress towards this goal, the Executive Council further committed to reevaluate and revise the strategy by Fall of 2000.

*T*HE TOXICS STRATEGY REEVALUATION AND REVISION HAS SHOWN THAT:

We have made significant strides in chemical contaminant reduction, prevention, and assessment activities through both regulatory and voluntary programs.

- Industries and federal facilities have achieved their basinwide goals of reducing Toxics Release Inventory chemical releases and transfers and over 250 businesses are participating in the voluntary pollution prevention program, *Businesses for the Bay*.
- In 1998, farmers practiced integrated pest management (IPM) on over 3.8 million acres (or 79%) of agricultural cropland surveyed in the Chesapeake Bay watershed.
- Between 1990 and 1999 nearly 1.3 million pounds of un-used pesticides were collected and properly disposed of through programs offered in 100% of watershed counties in Maryland, Pennsylvania, and Virginia.

➤ Between 1993 and 1999 nearly 700,000 used pesticide containers were collected and recycled through programs offered in 100% of watershed counties in Maryland, Pennsylvania, and Virginia.

➤ We continue to take actions to better understand and manage the chemical contaminant problems in the three *Regions of Concern*.

We have improved our understanding of chemical contaminant sources, loads, and impacts.

- The *1999 Toxics Characterization* and other federal and state characterizations report the status of chemical contaminant effects on living resources:
 - The three areas designated by the Executive Council as *Regions of Concern*: Anacostia River, Baltimore Harbor, and Elizabeth River still remain. It

may take years for these river systems to show a measurable response to chemical contaminant clean-up efforts.

- Ten tidal river segments have been characterized as *Areas of Emphasis* with significant potential for toxic effects on living resources and over 200 areas throughout the watershed in Maryland, Pennsylvania, Virginia, and the District of Columbia have been defined by the signatories as impaired or threatened due to chemical contamination.
 - Eight tidal river segments have been characterized as *Areas with Low Probability for Adverse Effects* where chemical contaminant problems are unlikely.
 - Twenty tidal river segments have been identified as *Areas with Insufficient or Inconclusive Data* where the status of toxic impacts on living resources is unknown.
 - Fish consumption advisories have been issued by the states in 21 areas in the Bay watershed due to chemical contaminants that have accumulated in fish tissues.
- The *1999 Chesapeake Bay Basinwide Toxics Loading and Release Inventory* reports:
- Nonpoint sources, particularly urban stormwater runoff, represent a substantial source of chemical contaminants to the Bay and its tidal rivers.
 - Point sources are subject to direct regulatory controls and have met many of the Bay Program voluntary goals, yet data indicate they may still

represent a significant source of some contaminants to the Bay and its tidal rivers

We still have work to do to:

- Prevent and reduce chemical contaminant inputs and eliminate toxic impacts on living resources that inhabit the Bay and rivers.
- Eliminate all chemical contaminant-related fish consumption bans and advisories.
- Clean up contaminants in the sediment in the three *Regions of Concern*.
- Sustain our progress and ultimately achieve the Toxics Strategy goal, in the face of increasing population and expanded development within the watershed.

We still have more to learn about:

- Chemical contaminant loads and impacts from animal agriculture, pesticide use, groundwater, urban stormwater runoff, and point sources.
- The sources and controllability of chemical contaminants from household products, human wastes, and residential activities.
- The potential for chemical contaminants to cause toxic impacts on aquatic-dependent wildlife in the Chesapeake Bay watershed.
- The long term impacts from low levels of chemical contaminants below thresholds associated with adverse effects on the Bay's living resources.
- How to deal with contaminants in sediments.

***B*ASED ON THESE FINDINGS, THE TOXICS 2000 STRATEGY WAS DEVELOPED** through a year-long process that incorporated broad stakeholder involvement. Through the Clean Water Act, the Clean Air Act and other federal, state, and local regulatory programs, significant strides have been made in controlling chemical contaminants and protecting living resources and human health. Further chemical contaminant reductions from both point and nonpoint sources are expected in the next decade through implementation of the Clean Water Act for those waterbodies defined as impaired by the jurisdictions. This Strategy **commits to voluntary efforts** that build on the successes of the state and federal regulatory programs and go beyond compliance with existing regulatory point and nonpoint source programs to preclude the need for costly regulations and remediation in the future.

A TARGETED APPROACH

Chemical Focus

With the thousands of chemicals that are being released into the watershed each year, we recognize the need to focus our limited resources on reducing or eliminating releases of those chemicals that we know are presenting the biggest risk to Chesapeake Bay living resources or human health, based on our current state of knowledge. Many of these chemicals of concern in the watershed are persistent or bioaccumulative and pose a risk to living resources or human health. They include:

- chemical contaminants identified in the *1999 Toxics Characterization* that are at levels that may cause toxic impacts to living resources,
- chemical contaminants responsible for listing a waterbody as impaired or threatened on the State and District 303(d) lists, and
- chemical contaminants responsible for finfish and shellfish consumption advisories.

Chemicals of concern include both currently-used chemicals and historically-used chemicals. We recognize that some chemicals are no longer in use and may be more difficult to control, but nonetheless remain a concern because they persist in the environment at levels that pose risks to living resources. We may target additional chemicals of concern for reduction and prevention actions as new data become available from our efforts to characterize toxic impacts and learn more about emerging chemicals of concern. Appendix A is a current list of chemicals of concern.

We also recognize that our knowledge of toxic impacts and chemicals that are causing toxic impacts is incom-

plete. Long term effects from low levels of multiple contaminants in the water and sediment of the Bay and rivers are not fully understood. Therefore, where feasible, we believe it is prudent to encourage reducing or eliminating loads of any chemical contaminant in the watershed through pollution prevention and other voluntary measures. Therefore, several watershed-wide commitments apply to the Toxics Release Inventory chemical list, a list of over 640 chemicals EPA has determined are being used, manufactured, or released in the environment that may pose threats to the environment and human health. These chemical releases are reported annually by many point sources in the watershed.

Geographic Focus

In order to address chemical contaminant-related problems in the watershed effectively and efficiently, we use an integrated, risk-based approach to focus limited resources in areas impacted or at risk due to chemical contaminants. We commit to stepping up our voluntary efforts in **impacted areas** where chemical contaminant problems are known: the *Regions of Concern*, the waterbodies impaired by chemical contaminants on the jurisdictions' 303(d) lists, and areas subject to finfish or shellfish consumption bans and advisories. We also commit to stepping up voluntary efforts in **areas at risk: Areas of Emphasis** where there is significant potential for toxic impacts on living resources, areas adjacent to land use activities that have a higher potential for contributing persistent or bioaccumulative chemicals such as highly urbanized watersheds or watersheds with intensive agricultural practices. Additional impacted areas and areas at risk may be identified as new data become available from our characterization efforts.

WHAT DO WE WANT?

Strategy Goal: Through implementation of this watershed-wide strategy, the Chesapeake Bay Program signatories re-commit to fulfilling the following goal:

Our goal 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.

HOW DO WE GET THERE?

The signatories commit to the following objectives and commitments to reach the overarching Toxics Strategy goal. Actions are focused on (1) restoration, protection and prevention and (2) monitoring, assessment, and research. Some commitments apply watershed-wide to address common issues across the watershed, while others apply to specific impacted areas and areas at risk.

TAKING RESTORATION, PROTECTION AND PREVENTION ACTIONS

Objective: *Through voluntary pollution prevention and restoration, we commit to (1) restore impacted areas and areas at risk due to legacy and present sources of chemical contaminants so that they can support living resources and humans that depend on them and (2) to protect those rivers that are not currently impacted by chemical contaminants to ensure that they remain un-impacted for future generations.*

To accomplish this objective, the signatories commit to:

Restoring Impacted Areas

To restore the *Regions of Concern* and other impacted watersheds we commit to:

- by 2001, initiate a series of technology exchanges with scientists, managers, and engineers to identify approaches, methods, and technologies for addressing contaminated sediment that are applicable to the Chesapeake Bay *Regions of Concern*.
- by 2002, based on these technology exchanges, each *Region of Concern* jurisdiction will review, revise, and begin implementing plans to deal with contaminated sediment which identify locations to target for sediment remediation, applicable technologies and approaches for addressing contaminated sediment, and stakeholders to partner with to ensure that the plans are implemented.
- prevent or reduce current chemical contaminant loads to these regions by taking voluntary actions that go beyond point and nonpoint source regulatory programs.

Restoring and Protecting Areas at Risk

To ensure that pollution prevention, restoration, and assessment actions are taken to benefit areas at risk due to chemical contaminants so that these areas can be characterized as *Areas with Low Probability for Adverse Effects* we commit to:

- conduct more detailed source assessments and loadings inventories to better define and manage chemical contaminants inputs from all sources, including contaminated sediment.

- prevent or reduce current chemical contaminant loads to these regions by taking voluntary actions that go beyond point and nonpoint source regulatory programs.

Protecting Un-impacted Areas

To ensure that *Areas with Low Probability for Adverse Effects* remain un-impacted we commit to:

- regularly monitor these areas to detect early warning signs of increased chemical contaminant loads or ambient levels that may pose a risk to living resources.
- encourage sound land use and development activities to prevent additional chemical contaminant loads from entering these rivers,
- prevent or reduce current chemical contaminant loads to these regions by taking voluntary actions that go beyond point and nonpoint source regulatory programs, particularly in areas under growth and development pressures.

Addressing Finfish/Shellfish Consumption Bans and Advisories

To ensure that finfish and shellfish are safe to eat by all Bay watershed residents and visitors Bay Program signatories, in partnership with the departments of health, the environmental community, and relevant federal agencies, commit to:

Develop Contaminant Prevention and Reduction Strategies

- By 2002 develop and begin implementing strategies

to prevent or reduce chemical contaminants responsible for fish consumption advisories.

- By 2002 in areas where the most substantial source of fish consumption advisories are sediments contaminated by legacy pollutants, evaluate the feasibility of various remediation measures to reduce the risks associated with contaminated sediment.

Evaluate Fish Tissue Monitoring and Outreach Programs

- By 2002, evaluate finfish and shellfish tissue monitoring programs and consumption estimates to determine whether they are sufficient for developing, updating, and confirming consumption bans and advisories caused by chemical contaminants and recommend any necessary improvements.
- By 2002, evaluate the technical and public outreach components of finfish and shellfish tissue monitoring

programs and progress reporting and recommend any necessary improvements to ensure that advisory information is accurate, understandable, and easily available to the public.

- By 2002 and every two years thereafter, report on progress in terms of the area (or river miles) of finfish and shellfish grounds assessed, area under advisories due to chemical contaminants, and a summary of trends in contaminant levels in finfish and shellfish in areas under advisories, areas at risk, and un-impacted areas.
- By 2004, institute the improvements to programs identified above and assess major fishing areas in the Bay watershed, complete risk screenings, identify specific sub-populations at risk where necessary, and issue consumption advisories where appropriate.

ADDRESSING POINT SOURCES

Point source facilities have made significant progress in preventing and reducing their chemical contaminant loads to the Chesapeake Bay watershed. Although point sources are subject to regulatory controls, there are additional voluntary steps that can be taken to further reduce and prevent chemical contaminant loads and improve point source loadings estimates to the Bay and rivers. The following objectives and commitments target point source facilities such as federal facilities, industries, publicly and privately owned treatment works (otherwise known as municipal wastewater treatment plants), stationary air emission sources in the watershed, businesses, commercial establishments, and state and local government facilities. Stormwater runoff is addressed in the nonpoint source section of this Strategy.

Zero Release Objective: *To achieve the following Chesapeake 2000 Bay Agreement commitment “Through continual improvement of pollution prevention measures and other voluntary means, strive for zero release of chemical contaminants from point sources, including air sources. Particular emphasis shall be placed on achieving, by 2010, elimination of mixing zones for persistent or bioaccumulative toxics.”*

To accomplish this objective, the signatories commit to:

Mixing Zone Phase Out

- Strive to meet water quality standards for persistent or bioaccumulative chemical contaminants at the point of discharge through continual improvement of pollution prevention measures and other voluntary means.
 - By 2001, establish a baseline for the facilities not meeting water quality standards at the point of discharge for persistent or bioaccumulative chemical

contaminants and by 2003 and 2007 report on their progress in reducing concentrations at the point of discharge in order to eliminate mixing zones.

- An initial emphasis shall be placed on phasing out mixing zones for persistent or bioaccumulative chemical contaminants in the following areas:
 - Regions of Concern,
 - Areas of Emphasis,

- 303(d) listed waters for persistent or bioaccumulative chemical contaminants,
- Areas under finfish or shellfish advisories caused by persistent or bioaccumulative chemical contaminants.

Chemical Release Reductions

Industries have made significant progress in achieving chemical reductions over the past decade. Between 1988 and 1997 they reduced their releases of Toxics Release Inventory chemicals by 67%. Since that time, many more chemicals and industries have been added to the Toxics Release Inventory. Therefore, we are setting new goals with more recent baselines to achieve further reductions from both industries and publicly and privately owned treatment works.

- By 2010 reduce by at least 20% the 1998 Toxics Release Inventory chemical releases and off-site transfers for treatment and disposal from 1998 levels by working with publicly and privately owned treatment works and industries (including air sources) throughout the watershed. Particular emphasis shall be placed on reducing chemicals at the source. By 2005, evaluate progress towards this commitment and commit to greater reductions where necessary by 2010.
- By 2005, in impacted areas and areas at risk, reduce by 15% chemicals of concern from 1998 levels by working with publicly and privately owned treatment works and industries (including air sources). By 2005, evaluate progress towards this commitment and commit to greater reductions where possible. Within five years of identifying any new impacted areas or areas at risk, achieve a 15% reduction of chemicals of concern in these new areas.
- By 2006, reduce by 40% Toxics Release Inventory chemical releases and off-site transfers from 2001 levels from federal facilities (including air sources) throughout the watershed, through innovative pollution prevention, effective facility management, and sound acquisition and procurement practices.
- By 2006, in impacted areas and areas at risk, reduce by 50% chemicals of concern from 2001 levels from priority federal facilities. Within six years of identifying any new impacted areas or areas at risk, achieve a 50% reduction of chemicals of concern in these new areas.

Because chemical contaminant loads from publicly and privately owned treatment works come from a diver-

sity of sources (such as industries and households) they face many challenges in meeting these point source commitments. Additionally, since the publicly and privately owned treatment works do not report chemical releases to the Toxics Release Inventory, it will be particularly important to quantify releases so that progress can be tracked and releases of industries discharging to treatment plants are not double counted. To overcome these challenges, the publicly and privately owned treatment works will:

- By 2002, in cooperation with the Chesapeake Bay Program, complete an education effort and establish partnerships with local government pretreatment and pollution prevention programs to encourage industries and Bay watershed residents to reduce their chemical contaminant loads to publicly and privately owned treatment works. Relevant information defining specific sources of chemical contaminants found in municipal wastewater will be gathered in order to develop a target audience for outreach efforts.
- By 2005, in cooperation with the Chesapeake Bay Program, quantify the historic and current release of chemical contaminants from publicly and privately owned treatment works and dischargers to these treatment plants. Identify and fill data gaps.
- By 2005, in cooperation with the Chesapeake Bay Program and the environmental community select target chemical contaminants being released from publicly and privately owned treatment works, develop reduction targets, and implement reduction activities through pretreatment and pollution prevention partnership programs.

Businesses for the Bay

- *Businesses for the Bay* participants will prevent at the source or recycle a total of one billion pounds of hazardous substances between 1999 and 2005. Hazardous substances include those materials listed on the Bay Program's chemicals of concern list and EPA's Toxics Release Inventory and Persistent Bioaccumulative Toxics lists; hazardous air pollutants (HAPs); criteria air pollutants; and hazardous wastes.
- By 2005, *Businesses for the Bay* will have 1,000 participants throughout the watershed. Of this, 50% will be small businesses with fewer than 100 employees.

- By 2005, *Businesses for the Bay* will have a total of 300 individuals volunteer as mentors to provide pollution prevention assistance to those in need throughout the watershed. These mentors will annually conduct 500 interactions with those in need of assistance.
- In 2005, the Pollution Prevention Workgroup will establish new *Businesses for the Bay* goals through 2010, as appropriate.

Sustainable Business Development

- By 2002, in cooperation with the departments responsible for economic development within each jurisdiction develop strategies to inform and assist new companies in the Bay watershed to strive for zero release of chemical contaminants through pollution prevention and other methods.

Improving Point Source Loadings Estimates

- By 2001, in cooperation with Bay watershed point source facilities, develop an approach for addressing uncertainties in point source chemical contaminant loads estimates in the *1999 Chesapeake Bay Basin-wide Toxics Loading and Release Inventory*. Specifically, the Chesapeake Bay Program signatories will work in cooperation with the point source community to:
 - quantify “typical pollutant concentrations” for specific point source sectors and extrapolate loadings to these sectors throughout the watershed.
 - develop a method to account for contaminant concentrations in the “in-take water” (Bay/river water used for a facility process such as cooling) to calculate the net load they are discharging to the Bay.

ADDRESSING NONPOINT SOURCES

This Strategy considers nonpoint sources of chemical contaminants as agricultural and urban/suburban stormwater runoff, atmospheric deposition, and groundwater. Although much remains to be learned about the load of contaminants from these sources, loadings estimates reveal that some nonpoint sources such as urban stormwater runoff can represent a substantial load of chemical contaminants to the Bay watershed. Although nonpoint sources are subject to some regulatory controls, there are additional steps that can be taken to further reduce and prevent chemical contaminant loads and improve loadings estimates to the Bay and rivers from nonpoint sources.

Zero Release Objective: *Through continual improvement of pollution prevention measures and other voluntary means, strive for zero release of chemical contaminants from nonpoint sources.*

To accomplish this objective, the signatories commit to:

Program Coordination and Progress Reporting

Periodic reports of progress will ensure that our efforts remain focused and on track.

- By 2000, the Chesapeake Bay Program’s Implementation committee will establish a joint workgroup of the Nutrient and Toxics Subcommittees to coordinate urban and suburban stormwater management programs across and within Bay Program jurisdictional boundaries to improve water quality. Particular emphasis shall be placed on making recommendations to federal, state, and local nonpoint source program managers to:

- integrate chemical contaminants, nutrients, and sediment stormwater-related programs to address the nonpoint source and development commitments in the *Chesapeake 2000 Bay Agreement*,
- prevent chemical contaminant loads from developing lands and reduce chemical contaminant loads from developed lands,
- develop tools to help local governments achieve these voluntary commitments.

Chemical Contaminant Reductions

In order to achieve the zero release objective, reductions in chemical contaminant loads from developed areas and lands that have a high potential for contributing contaminants must be achieved. Particular emphasis shall be placed on achieving, by 2010, implementation of innovative stormwater management technologies and pollution prevention measures on lands where stormwater loads of chemical contaminants are not currently managed.

- Between 2001 and 2005, the Bay Program jurisdictions will work with local governments and other stakeholders to develop and begin implementing projects and programs that demonstrate reductions in nonpoint sources of chemicals of concern from those areas that are impacted or at risk, including federal, state, and District lands. Specifically, implement:
 - projects and programs that reduce stormwater chemical contaminant loads through pollution prevention measures, innovative site design, best management practices or other technologies.
 - projects and programs that reduce the use of pesticides, promote less toxic alternatives, or employ other voluntary efforts that ultimately reduce pesticide loads to the watershed.
- Between 2005 and 2010, evaluate the effectiveness of these demonstration projects and programs in reducing chemical contaminant loads, report resulting nonpoint source loads reductions, and transfer successful pollutant reduction measures to other areas within the watershed.
- By 2010, reduce nonpoint sources of chemicals of concern to the *Regions of Concern* by at least 30%, through implementation of pollution prevention means and other voluntary nonpoint source programs and through accounting of reductions achieved through regulatory programs. By 2002 baselines will be developed for each region.

Chemical Contaminant Prevention

Particular emphasis shall be placed on achieving, by 2010, a no net increase of chemical contaminants from developing lands by using a combination of pollution

prevention, sound landuse practices, and innovative technological solutions.

- By 2005, reduce chemical contaminants at the source by working with the development community to develop construction materials and techniques and landscaping designs that reduce pollution at the source.
- By 2005, reduce chemical contaminants at the source by working with land owners to prevent chemical contaminants from being deposited on their lands as a result of lawn care, vehicle maintenance, and other activities.
- By 2010, ensure that the appropriate stormwater management technologies are in place to offset any residual chemical contaminant loads from newly developed lands.

Improving Nonpoint Source Loadings Estimates

- By 2002 synthesize literature on pesticide use on all lands, loads, and impacts and make recommendations for filling in key data gaps.
- By 2003, Bay scientists will synthesize available information on groundwater contributions of chemical contaminants to the Bay and its rivers.
- By 2004, complete initial monitoring and assessments to determine the potential for toxic impacts from episodic chemical contaminant loads from agricultural and urban/suburban runoff on living resources.
- By 2005, Bay Program signatories will improve estimates and reduce uncertainty of urban stormwater runoff loads, using all available data from the National Pollutant Discharge and Elimination System Phase I and II stormwater programs, Total Maximum Daily Loads development efforts, and demonstration projects and develop methodologies to extrapolate these loads to other watershed areas.

CONDUCTING MONITORING, ASSESSMENTS, AND RESEARCH

While we commit to taking restoration and protection actions now with our current state of knowledge, we also commit to improving our understanding of chemical contaminant impacts in the watershed and knowledge of emerging threats. We also commit to conducting the necessary chemical and biological monitoring, assessments, and research to measure progress towards achieving the Toxics Strategy goal.

Objective: *To improve our understanding of how basinwide chemical contaminant loads and impacts are related and to conduct the necessary monitoring, research, and assessments to measure progress of our management actions.*

To accomplish this objective, the signatories commit to:

Assessing the Status of Toxic Impacts on Living Resources

- By 2005, update the *1999 Toxics Characterization* by conducting the necessary biological and chemical monitoring to characterize the status of chemical contaminant effects on living resources in those tidal rivers characterized as *Areas with Insufficient or Inconclusive Data* and in the mainstem Bay. In 2009, update the Toxics Characterization using any data collected since the previous characterization.
- By 2003, identify toxic impacts on benthic communities by analyzing concurrently-collected sediment contaminant concentrations and benthic community data.
- By 2004, acquire relevant chemical contaminant data that is collected by local governments and is of sufficient quality to aid in updating the *1999 Toxics Characterization*.

Estimating Chemical Contaminant Loads from the Watershed

- By 2007, refine the *1999 Chesapeake Bay Basinwide Toxics Loading and Release Inventory* including chemical contaminant loads from upstream sources, agricultural runoff, urban/suburban runoff, atmospheric deposition, point sources, and groundwater.

Improving Coordination and Information Sharing

- By 2001, in cooperation with Chesapeake Bay scientists, develop and maintain a web-based clearinghouse of on-going chemical contaminant monitoring, research, and assessments to enhance coordination and information sharing.

- The Toxics Subcommittee will host regular scientific seminars to learn about innovative and cost-effective methods for monitoring and assessment, data interpretation, and data integration.

Anticipating Emerging Chemical Contaminant Issues

- By 2001, review the state of knowledge regarding the potential for animal agriculture to cause toxic impacts on the Bay's living resources and develop recommendations for filling in key data gaps and implementing any necessary management actions.
- By 2007, conduct the necessary monitoring and assessments to determine whether aquatic-dependent wildlife is experiencing toxic impacts in the Chesapeake Bay watershed, with particular emphasis in the three *Regions of Concern*.
- Hold symposia as needed to explore the relevancy of other regional, national, or worldwide chemical contaminant issues to the Chesapeake Bay watershed (such as emerging chemicals of concern like pharmaceuticals) and develop additional commitments for addressing these issues if necessary.

Reporting Progress

- Through 2010, continue to conduct the necessary monitoring and assessments to evaluate progress of eliminating toxic impacts in areas where management actions are underway, better defining chemical contaminant problems in the areas at risk, and ensuring that unimpacted areas are not getting worse.
- Report annually progress made towards the strategy goal.
- By 2010, reevaluate and revise as necessary, the basinwide toxics strategy.

HOW DO WE SUSTAIN OUR PROGRESS?

In order to achieve the Toxics Strategy goal, we encourage a community-based watershed management approach that tailors restoration, protection, prevention, and assessment actions to the needs of specific small watersheds and to chemicals of concern (both currently and historically used) to make the best use of limited financial and human resources. To guarantee long-term success in eliminating and preventing toxic impacts in these small watersheds, it is essential that people who live, work, and play in the watershed understand chemical contaminant issues and are actively involved in developing a plan for addressing chemical contaminant problems in their watershed and ensuring that progress is made and sustained.

Objectives:

To promote a community-based watershed management approach to protecting and restoring rivers from chemical contaminant-related problems and increase the opportunity for citizens, watershed organizations, and decision makers to learn about chemical contaminants and their impacts on the Bay ecosystem.

To anticipate future changes and activities on the watershed such as population growth, expanded development, and transportation and ensure that the appropriate voluntary pollution prevention measures are in place to sustain progress towards eliminating toxic impacts in the watershed and to ensure that un-impacted areas are protected for future generations.

To accomplish this objective, the signatories commit to:

Community-based Watershed Management

- By 2001, develop a chemical contaminant fact sheet for citizens, watershed organizations, and decision makers that provides more detailed information about the issues and terms referred to in this Strategy.
- Work with small watershed stakeholders to incorporate into locally-supported watershed management plans actions to eliminate and prevent toxic impacts in 15 tributary watersheds by 2005 and an additional 20 by 2010 where appropriate by:
 - providing relevant information and tools to public and private stakeholders, including citizens, community-based organizations, watershed organizations, local governments, decision makers and elected officials so that they can effectively participate in governmental meetings, watershed management planning, and activities to address chemical contaminant issues in their rivers.
 - encouraging integrated approaches for reducing and preventing loads of nutrients, sediment, and chemical contaminants from both point and nonpoint sources.
 - promoting protection and restoration of vital living resource habitats such as wetlands and riparian forest buffers that play a key role in restoring and protecting environmental quality.

Anticipating Future Changes on the Watershed

- Encourage advances in zero release technologies, innovative and cost-effective nonpoint source controls, methods for dealing with contaminants in sediment, and approaches for sound land use planning.
- Conduct the necessary assessments to measure early warning signs of impeded progress due to changes in land use on the watershed.

ADOPTION STATEMENT

BY THIS STRATEGY, we rededicate ourselves to the restoration and protection of the Chesapeake Bay watershed. We agree to report regularly on our progress and consider any additional actions necessary.

DATE: December 2000

FOR THE COMMONWEALTH OF VIRGINIA



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