Toxics Substances

Basic Assumptions

- Science doesn't have the capacity to fully understand the harm from synthetic substances. Because some uncertainty about the hazards of toxics is inherent, and it is often impossible to control exposure to chemicals, it is essential that the precautionary principle is invoked to act on Early Warnings and prevent harm from new or existing activities.
- Accumulation of toxics in the environment and in our bodies is the result of failures in the design of modern chemical practices and in a flawed regulatory system. Safety, the protection of biodiversity, and the promotion of human health are critical components of good design. The values inherent in the principles of green chemistry and green provide a useful framework for designing safer chemicals and products.
- Unnecessary consumption contributes to the global ecosystem damage we face today, and must be rendered sustainable.
- The structure and functioning of our U.S. and global economy requires new vision that promotes rather than impedes sustainable practices. Regulatory and economic goals of zero contamination of air, water, and soil help create the need for product stewardship and corporate responsibility.
- The presence of private money in the political process gives undue influence to the corporate sector of society and perpetuates damaging behaviors. We should codify the new ethical standards voluntarily adopted by the White House as a minimum requirement.
- Urgency of action is needed. We can turn things around, but we need to act now.

Generational Goal. A non-toxic environment that is free from synthetic or extracted compounds or radioactive material that represent a potential threat to human health or biological diversity.

Objective 1. Phase-out persistent, bioaccumulative, or highly toxic substances

Priority Actions:

1. Prioritize for the elimination of chemicals that are slow to degrade, accumulate in our bodies or living organisms, or are highly hazardous to humans or the environment.
2. Ensure that chemicals eliminated in the United States are not exported to other countries.

Objective 2. Require safer substitutes and solutions to problem substances and products.

Priority Actions:

1. Require that safety information be made publicly available if a chemical is to remain on the market. This information must be sufficient to permit a reasonable evaluation of the safety of the chemical (substance) for the ecosystem and human health, including hazard, use and exposure information.
2. Alter production processes, substitute safer substances, redesign products and systems, reward innovation, and re-examine product function in order to work toward eliminating toxic exposures.
3. Ensure that the public has a deep awareness of the linkages between toxic exposures, health and ecosystem health.

Objective 3. Transition from toxic conventional chemistry and engineering practices to non-toxic, clean, green alternatives based on renewable and sustainable materials.

Priority Actions:

1. Codify the 12 Principles of Green Chemistry and the Principles of Green Engineering[i] as national standards for chemistry and engineering practices. These principles need to be incorporated into standard procedures and practices among all industrial, manufacturing and research sectors.
2. Require that companies research, draft, and submit for approval plans for any activity involving, extracting or disposing of chemicals, toxic metals or radioactive material which explains that the business practices selected are (a) necessary and (b) result in the lowest possible impact on the environment, their employees, and the surrounding communities.
3. Institute policies which incentivize the production and purchase of safer chemicals, materials and products.

Objective 4. Protect workers, communities and biodiversity and take immediate action to address contamination.

Priority Actions:

1. Clean up already contaminated sites to ensure that human health and biodiversity are not impacted. Ensure that land-use planning is incorporated into comprehensive clean-up protocols to promote greater access to open space and mass transportation, especially for disproportionately impacted minority and low income communities also meets the strictest clean up standards.
2. Require and enable involvement by the public and workers in decisions on chemical use by fully disclosing information on chemicals and materials, on quantities produced, used released and exported and on hazard and exposure data.
3. When communities and workers are exposed to levels of chemicals that pose a health hazard, immediate action is necessary to eliminate these exposures.

[i] As defined by the Sandestin Principles of Green Engineering, see http://www.epa.gov/oppt/greenengineering/pubs/whats_ge.html