



west virginia department of environmental protection

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**FINAL REPORT**

***Sustainability Assessment***

*Prepared for the  
West Virginia Department of Environmental Protection*

**February 16, 2005**

*Presented by*  
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## Table of Contents

<b>Foreword</b> .....	<b>3</b>
<b>Acknowledgements</b> .....	<b>4</b>
<b>Executive Summary</b> .....	<b>5</b>
Sustainability .....	5
West Virginia’s Sustainability Ethic – Today and Setting the Stage for Tomorrow .....	6
A Roadmap for a Sustainable West Virginia.....	7
<i>Immediate Term Activities (late 2004 - early 2005)</i> .....	7
<i>Near Term Activities (Calendar 2005)</i> .....	8
<i>Mid-Term Activities (Calendar 2006)</i> .....	8
<b>Introduction and Organization of this Report</b> .....	<b>10</b>
Methodology .....	10
<i>Stakeholder Interviews</i> .....	10
<i>Sustainability Workshop</i> .....	11
The Structure of this Sustainability Assessment .....	11
<b>Chapter 1 – What is the Conventional View of “Sustainability”</b> .....	<b>13</b>
Key Principles of Sustainability.....	13
Developing a Sustainability Lens.....	14
The International Dimension.....	17
Private Sector Initiatives.....	17
Sustainable Community Initiatives.....	18
The Role of the Public Sector.....	20
<b>Chapter 2 – Global and National Trends in Sustainability – and Why it is Imperative That West Virginia Move to a Sustainability Ethic</b> .....	<b>22</b>
Oregon .....	22
Washington State .....	24
North Carolina.....	25
Other Notable State Initiatives.....	28
Prospects for West Virginia.....	30
<b>Chapter 3 – Sustainability in West Virginia Today</b> .....	<b>32</b>
Perceptions... and Misperceptions.....	32
<i>Concepts &amp; Vocabulary</i> .....	32
<i>Need for Connectedness</i> .....	33
Examples of Sustainable Projects, Practices and Programs Currently Underway .....	34
Today’s Leadership – Tomorrow’s Future .....	38
<i>Resource Roundtable</i> .....	38
<i>Research and Education</i> .....	39
<b>Chapter 4 – Sustainability Tomorrow</b> .....	<b>41</b>

Drivers of Sustainability.....	41
<i>A Passion for the Land and the State’s Natural Resources</i> .....	41
<i>Technical Assistance</i> .....	42
<i>A Culture of Initiative and Partnership</i> .....	43
Refining the Drivers .....	43
Barriers to Sustainability .....	44
<i>A History of Exploitation</i> .....	44
<i>Economic</i> .....	45
<i>Communication</i> .....	45
<i>Technical Sophistication of Regulators</i> .....	46
<i>Reactive Tendencies of Government</i> .....	46
Refining Barriers .....	46
Goals for a Sustainable West Virginia.....	47
<b>Chapter 5 – The Road Map to a Sustainable Future.....</b>	<b>49</b>
Political Will .....	49
Leadership in the Private Sector .....	50
Sustainability at the Community Level.....	50
Education and Enlightenment.....	51
An Institutional Home for Sustainability.....	52
A Multi-Stakeholder Dialogue and Outreach Effort.....	52
A “Good Neighbor” Program and/or a “Sustainable Community” Pilot.....	53
Sector-level Assessments .....	54
Sector-based Reporting and Sector Performance Metrics.....	54
Environmental Excellence Program Legislation .....	55
<b>Chapter 6 - Conclusion.....</b>	<b>57</b>
Relations between West Virginia and US EPA .....	57
The West Virginia SPA.....	58
A Final Word .....	59
<b>Appendix I – Interview Guide .....</b>	<b>60</b>

## Foreword

We are pleased to present this draft “Sustainability Assessment” to the West Virginia Department of Environmental Protection (the “WVDEP”) and the citizens of West Virginia. It has been a unique pleasure to get familiar with the people, the processes, and the policies of your great state.

This is not a typical programmatic assessment.

We do not present detailed reference materials by which the reader can trace the history and intent of sustainability. This assessment does not examine the efficacy or efficiency of current efforts against any measurable criteria.

Rather, our point of departure was that public policy in this arena is, in some sense, shaped by both perceptions and politics. For that reason, we started this analysis by interviewing dozens of interested parties (“Stakeholders”) throughout the state and in the federal government. These stakeholders represented government agencies, industries of all kinds, elected officials, the environmental community and local leadership. We proceeded in this manner because the culture of West Virginia – is uniquely, West Virginia. Comparative assessments at this stage of thinking are secondary to the primary notion of collecting data which uniquely reflects the values within the state’s culture.

This assessment recounts where the various interest groups seem to be with regard to sustainability. Taking that in conjunction with our own expertise, we developed our best counsel for constructing a road map for Sustainability in West Virginia: a road map that will help move the state away from what is commonly regarded as a command and control ethic and toward something that better protects and preserves environmental quality throughout the state while at the same time recognizing the need to provide economic growth and social equity.

We are grateful for the opportunity to serve the people of West Virginia and wish the new Administration the best of luck in their efforts.



Adam R. Saslow  
President  
Consensus Solutions, Incorporated  
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February, 2005

## Acknowledgements

This work was supported by resources provided by the United States Environmental Protection Agency (US EPA) through a grant awarded to the WVDEP by the Environmental Council of the States (ECOS). Without their belief in West Virginia and their generous support, the issues surrounding Sustainable West Virginia might not have reached the degree of prominence that they have because of this project.

We are also thankful for the willingness of WVDEP to open their minds and hearts to concepts which stretch well beyond the regulatory framework that typically exists in agencies of their kind. We would like to single out Cabinet Secretary Stephanie Timmermeyer, Assistant Secretary Randy Huffman and Innovation Administrator and Deputy Administrator Dave Bassage and Greg Adolfson.

Sprinkled throughout this report is some of the best West Virginia photography we have seen. All of the graphics included in this Sustainability Assessment were sourced from the public galleries found at: <http://www.wonderfulwv.com/pgallery.cfm>. We extend our thanks to the artists whose work is found in those galleries and note here that their pictures help make this report far more aesthetically pleasing.

Finally, we gratefully acknowledge the many people who gave their time and energy to inform this process. As outsiders to the Mountaineer culture, we were led through a magnificent journey through the history and the values of West Virginia's people. We are thankful to all of those who spent their time educating us.

West Virginia is taking the first steps down a road which has the potential to preserve some of the nation's most precious resources while at the same time re-defining its place in the United States. We applaud those who contributed to this effort and commit their energies to making progress along the road ahead.

Adam R. Saslow  
President  
Consensus Solutions, Incorporated

Ira Feldman  
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Greentrack Strategies

## **Executive Summary**

“Sustainable Development” is a broad concept covering the way in which activities impact the economy, the environment, and social well-being. While it is generally accepted that development should be sustainable in all three of these dimensions, practical application of the concept is both complex and challenging.

### ***Sustainability***

A widely accepted definition of sustainable development was produced by the Brundtland Commission: development that meets the needs of the present generation without undermining the capacity of future generations to meet their needs. Rather than trying to create a satisfactory definition for “sustainable development,” many see the value in understanding sustainability as a set of principles, an approach to issues, an operating framework, or as an evolving process in the sense of a “sustainability transition.” In West Virginia, we have noted that “gut feeling” is at least as important as any textbook definition.

Again, broadly speaking, organizations have embarked upon broad initiatives to better align their practices with sustainable development priorities. In the private sector, leading organizations have begun to consider global issues, to recognize and share responsibility for the environmental and social impacts of producing and using their products, and to better engage stakeholders. It will be an ongoing task to further develop consistent approaches within industry sectors to integrate social, economic and environmental decision making.

Communities and non-governmental organizations, recognizing the importance of stakeholder engagement in sustainability thinking, are also developing sustainability initiatives. Sustainability principles can be effectively applied at global, national, regional and local levels. Place-based “sustainable community” activities may be the most visible evidence of the sustainability transition in the United States.

Public sector organizations, including environmental regulatory agencies, are beginning to understand the significance of sustainability concepts as well. The changing stakeholder dynamic integral to any sustainability framework will most directly affect the role of regulators. Sustainability thinking will find its place in public sector organizations through the strategic planning process, adapting existing programs, and enhanced stakeholder engagement.

Among the states embracing sustainability thinking, Oregon and Washington State are the acknowledged leaders. Both Oregon and Washington State are operating under Executive Orders which mandate the development of sustainability strategies for internal state government operations. Other states, including Massachusetts and Pennsylvania, have initiated programs which may serve as components of future comprehensive sustainability initiatives.

## ***West Virginia's Sustainability Ethic – Today and Setting the Stage for Tomorrow***

West Virginia's state culture offers great hope for embracing a culture of sustainability.



West Virginia's people have an uncommon tie to the land. This tie represents Mountaineer heritage and tomorrow's hope. At the same time, the land and all of its natural resources represent the state's economic past, present and future. Finally, the community concept represents the epicenter of identity. This applies not only within the rural areas but also more broadly throughout the state. Those who shared their thoughts on sustainability in this process possess a deep love for the places where their ancestors were born, where they have lived for generations and where they hope to grow old. These are core values for the citizens of the state and collectively they create a nearly unparalleled stewardship ethos.

This culture has led to numerous projects and initiatives across the economic spectrum and geographically across the state. Though not termed "sustainability" efforts, this work clearly connects environment, economics and social equity. Examples include:

- ✔ A Vision Shared;
- ✔ The Resource Roundtable;
- ✔ The Leadership of the State Implementation Committee of the Sustainable Forestry Initiative;
- ✔ West Virginia Stream Partners Program;
- ✔ The King Coal Highway;
- ✔ The West Virginia Watershed Management Framework;
- ✔ The Hatfield-McCoy Trail Systems;
- ✔ Community Development and Economic Diversification Efforts at the Mingo-Logan Coal Mine; and
- ✔ The Grassland Farmers Program

Yet despite the success of these programs, "sustainability" has not established critical mass in the fabric of West Virginia's public policy quilt. The reasons for this are many-fold and significant and include:

- ✘ Inconsistent perceptions concerning the "meaning" of sustainability;
- ✘ There has been, to date, no gubernatorial mandate or legislation calling for sustainable practices;
- ✘ No state agency or department is responsible for a sustainability mandate or mission;

- ✘ Debate and distrust between polarized interests have prevented constructive discourse in some cases;
- ✘ Many perceive that economic interests and environmental concerns present a “zero-sum” dilemma and that this state’s priority must be about growth;
- ✘ Low personal income has been a crucial driver of the social agenda;
- ✘ A pervasive ethos of cultural “self-deprecation” that unfavorably (and incorrectly) compares West Virginia’s social standing with the rest of the nation; and
- ✘ The perception of a comparatively bad business climate (e.g., worker’s compensation, severance taxes, labor, etc...).

During the course of this project, over 150 leaders from in and around West Virginia were contacted. Many spent significant volumes of time contributing to the contents of this Assessment. Though their understandings of “sustainability” were greatly varied, all presented valued perspectives. Both the drivers and the barriers of sustainability presented above were the most consistently referenced factors across the many interviews. These were the most important factors in the development of our “Road Map for Sustainability.”

### ***A Roadmap for a Sustainable West Virginia***

Thematically, the central barriers that must be overcome include:

- Recognition of the scale/magnitude of the problem;
- Leadership, need for alternative models (e.g. public/private partnerships);
- Education, “making the business case,” ecological economics;
- Lack of contiguity, splintered proponents, need for teamwork; and
- West Virginia’s cultural ethos and “promotion of denial.”

These barriers can and should be hurdled by leveraging the drivers of sustainability:

- Environment, ecology, impacts;
- Economy, profits, diversification;
- Leadership – from the governor and more localized sources;
- Tie to the land; and
- Education – children and technical support to local leadership

The proposed road map underscores those drivers and includes a variety of near term and midterm activities to be undertaken by a variety of interested parties

#### Immediate Term Activities (late 2004 - early 2005)

- I. WVDEP should immediately become a signature party to the WV Resource Roundtable. This group, more than any other institution in the governmental sector, seems to be prepared to be the “home” for sustainability in the state.

2. The Resource Roundtable should explicitly reference the connection to sustainability in its mission. In fact, it might be more appropriately re-named “the Sustainability Roundtable.
3. During his 2004 Gubernatorial campaign, Governor-elect Manchin made statements that promise to promote the principles of sustainability – without using the phraseology. The Resource Roundtable should introduce the new Governor to its mission as well as the processes for encouraging public policy consistent with sustainability principles.
4. Governor-elect Manchin should consider sponsoring Sustainability Legislation similar to Washington, Oregon and elsewhere. A “WV Sustainability Doctrine” should be the product.

#### Near Term Activities (Calendar 2005)

5. The Resource Roundtable, with leadership from WVDEP should convene a balanced group of stakeholders in a year long “Sustainable West Virginia” campaign. This group would be charged with developing recommendations for (but not limited to):
  - a. A “Sustainable Sector” initiative
  - b. Goals and performance metrics for such an initiative
  - c. Recruitment policies and incentives

Partnerships forged with “West Virginia: A Vision Shared” may provide a ready structure for such a dialogue.

6. Education: Leaders in the public sector, private sector and non-profit sector should be systematically exposed to the underpinnings of sustainability (through the Natural Step Framework) as well as transformational thinking.
7. Institutional arrangements with US EPA should be firmed. Through the development of a Sustainability Partnership Agreement (an “SPA”), West Virginia can formally align its own goals with Regional and National US EPA priorities – and become eligible for additional federal support.

#### Mid-Term Activities (Calendar 2006)

8. West Virginia should implement the templates for a “Good Neighbor” program. Typically, Good Neighbor agreements arise from contentious permitting and land use disputes that place a company and community at odds. These instruments have been used to best effect to reach agreements with petroleum refineries, chemical processing plants, and mining operations.

9. The result of #5 above will be the implementation of a Sector-Based Sustainability Initiative. Such efforts would necessarily include a Sector Assessment, Reporting and Performance Metrics and the convening of a core multi-stakeholder dialogue,

Of course the end result of all nine activities will be the single greatest result – the paradigm and cultural shift of government officials and agencies, community leaders and even industry: a shift away from command and control regulation and toward a collaborative environment which recognizes and affects connectivity.

## Introduction and Organization of this Report

Adam R. Saslow, President of Consensus Solutions, Incorporated conducted this Sustainability Assessment in partnership with Mr. Ira Feldman, President of Greentrack Strategies.

A more descriptive summary of the methodology used to approach this effort appears below.

### ***Methodology***

#### Stakeholder Interviews

After some initial project scoping with WVDEP, Mr. Saslow and Mr. Feldman began this effort with a short list of potentially interested parties provided by the agency. In the opening weeks, the consultants spoke with several state leaders (from every sector of the economy), many of whom provided additional contacts. Consensus Solutions often refers to this as a “snowballing process” by which neutrals (e.g., facilitators or mediators) gain valuable information to identify real and perceived leaders in affected communities.

Ultimately, Mr. Saslow and Mr. Feldman along with Mr. Greg Adolfson of WVDEP made contact with nearly 150 people via electronic medium as well as in-person interviews on site in West Virginia and via telephone. Several papers and e-mail correspondence were collected as well. All interviews and written materials were introduced and treated as confidential communications in the sense that the contents of this report and subsequent briefings of governmental officials would never associate individual statements with particular people and only on very rare occasions with the organizations they represent.

Mr. Saslow and Mr. Feldman used an Interview Guide (please reference Appendix I) as a way of ensuring some degree of consistency across the many discussions. This was a structural tool (not a script) used to define the main elements needed to rise in every conversation.

The first objective within each interview was to have the interviewee relate their understanding of sustainability. Beyond that, participants were asked to:

- ❑ Identify Drivers and Barriers for Sustainability;
- ❑ Reference ongoing programs at any level of government which seemed to reflect a sustainability ethic;
- ❑ Relate the goals of such programs or sustainability more broadly; and
- ❑ Assess the capacity for leadership in the sustainability arena.

Oftentimes interviewees were asked to identify educational needs for various interest groups within and across the state.

## Sustainability Workshop

These interviews were extraordinarily detailed and often spanned 60 -120 minutes. Through this process we were typically able to assess the interviewee's relative interest in taking part in any future dialogue as well as their suitability for participation. In many cases, the tenor of each interview was one in which the consultants played "Devil's Advocate" and questioned the depth of the interviewees commitment to their related positions. In that way, we were able to develop impressions concerning the relative degrees of knowledge of the interviewees as well as the potential for meaningful and mutually agreeable outcomes.



Early in the project scoping it became apparent that the recommendations coming out of this Sustainability Assessment must be scrutinized by a balanced and representative group of interested stakeholders. Thus, a workshop was scheduled for November 5, 2004 and designed with the following four objectives in mind:

- ✔ Provide some common understandings and vocabulary concerning "sustainability;"
- ✔ Offer participants the opportunity to discuss ongoing efforts which demonstrate their own successes with sustainability;
- ✔ Review the content of this Assessment and solicit feedback on the recommendations contained within; and
- ✔ Determine which elements of the "Road Map" seem to engender the greatest degree of support from the broadest base of participants.

Feedback was provided and this document was modified based upon that stakeholder input.

### ***The Structure of this Sustainability Assessment***

This Sustainability Assessment is best viewed as having 3 discrete sections.

- Chapters 1 and 2 provide rich context for conventional definitions and trends within the realm of "sustainability." We present a wealth of evidence to prove that sustainability concepts are more than a "blip" on the radar screen or a "flavor of the month." Sustainability is a concept that has been prominent for nearly fifteen years.
- Chapters 3 and 4 report the results of the interviews we conducted during the course of this project. We detail commonly held views on what sustainability means for West Virginia today and what form it may take tomorrow.

- Chapter 5 overlays our own insight onto the data collected in the prior chapters. We present a generalized road map for shifting a predominantly command and control-like culture to one that is grounded in the principles of sustainability. As the reader will note, such a paradigm shift will involve much more than the active engagement of our client – the WVDEP. It will involve organizations at all levels of government and the support of community leaders, industry and elected officials.

Chapter 6 provides a few concluding remarks.



## **Chapter I – What is the Conventional View of “Sustainability”**

Sustainable Development is a broad concept that recognizes the linkages between actions and their impact on economic development, the environment, and social well-being. While it is generally accepted that development should be sustainable in all three of these dimensions, practical application of the concept is complex and challenging.

The concept of sustainability represents a way to think systematically, and to find long-term solutions to the problems we face in our communities, our economy, and our environment. The challenge is to develop a common understanding of the principles (but not necessarily the concrete definition) of sustainability and to articulate how we can move towards it. This chapter is intended to offer a compact introduction to the principles of sustainability to facilitate further discussion.

### ***Key Principles of Sustainability***

The terms “sustainability” and “sustainable development” have been part of local, national, and global discussions for almost two decades. The most commonly quoted definition is from the United Nations 1987 publication “Our Common Future,” better known as the Brundtland Report.<sup>1</sup> It brought the concept of sustainable development to the public arena in a comprehensive statement: Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Many organizations have adopted goal statements that focus on achieving a sustainable future. While these vary widely in specific wording, they show a surprising degree of convergence around several key ideas:

- Whole-systems thinking – the integration of social, environmental, and economic forces, also known as the triple bottom-line;
- Long term thinking – understanding the consequences of actions over time, and preserving choices and opportunities for future generations;
- Recognizing limits – an acknowledgement that people, economies, and all life depend on healthy functioning ecosystems; and,
- Improved livelihoods – a better “quality of life,” both today and for future generations.<sup>2</sup>

When these ideas are considered and applied to real world situations, a basic set of principles emerge that can define sustainability:

- Meeting human needs fairly and efficiently, giving priority to basic needs;
- Reducing dependence on non-renewable energy sources and those energy sources that have adverse effects on human and environmental health;

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<sup>1</sup> World Commission on Environment and Development (WCED), Our Common Future (1987).

<sup>2</sup> Adapted from: Washington State Department of Ecology, “Field Guide to Sustainability,” (2003).

- Reducing the economy’s reliance on limited raw materials and resources where extraction and manufacturing processes produce dangerous byproducts that do not degrade in nature;
- Increasing the efficiency and productivity of natural resources;
- Reducing dependence on synthetic compounds that do not break down in nature;
- Reducing or eliminating waste;
- Reversing the decline of natural resources and the viability of ecosystems; and,
- Anticipating and preventing problems rather than trying to react and fix them after they occur.<sup>3</sup>

Sustainability principles can be effectively applied at global, national, regional and local levels. We usually speak of the three “pillars” of sustainability – economic, environmental, and social – and the need for all of them to be sustainable in order for the system as a whole to be sustainable.

*Like “democracy,” a word wholly embraced by people with vastly different interpretations about what it means in practice, sustainability is difficult to define with great precision. This lack of precision, however, has not kept the concept from becoming ever more important in considerations about how we as a society should approach the future.<sup>4</sup>*

A sustainable project, plan, goal, or objective must systematically address environmental, economic, and social issues over the long term. Many traditional cultures hold this value very strongly. For example, in their councils, the Iroquois and other Native American groups require that each decision be evaluated by asking “What impact will this have on the seventh generation from today?”

Whereas there is an intrinsic meaning to “sustainability” in economics and in nature, many sustainability advocates argue that to be sustainable, a society must be equitable, more participatory, and democratic. Thus, in social terms, the third pillar of sustainability involves deciding what we want to sustain – values such as equity, participation, and democracy – and searching for a way to achieve these goals in a system that is economically and environmentally sustainable.

The “value added” element of the concept of sustainability is that it forces us to recognize the links and trade-offs among the underlying issues, rather than dealing with them independently. To achieve sustainability, we need to sustain our economy, protect our environment, and achieve our social goals – at least in principle without trading off one goal for another.<sup>5</sup>

### ***Developing a Sustainability Lens***

Rather than try to create a single, satisfactory definition of sustainable development, many see the value in understanding sustainability as a set of principles, as an approach to issues, as an operating framework, or as an evolving process in the sense of an ongoing “sustainability transition.” Several useful tools are available for organizations seeking to develop a “sustainability lens,” (i.e., an approach that provides an overview on current and future impacts from a sustainability perspective, and, at the

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<sup>3</sup> Id.

<sup>4</sup> Id., page 3.

<sup>5</sup> New Jersey Sustainable State Institute, “Why Are Sustainability Metrics Important?” (2003).

same time, be suitable for measuring progress toward sustainability and evaluating the likely effect of different alternatives for achieving sustainability).

**The Natural Step (TNS)** is framework composed of “easily understood, scientifically based principles that can serve as a compass to guide society toward a just and sustainable future.”<sup>6</sup> The Natural Step System Conditions are four unalterable system-level conditions (see box below) that form a full framework that includes environmental protection along with efficiency and social equity.

### **The Natural Step -- System Conditions for Sustainability**

In order for a society to be sustainable, nature's functions and diversity are not systematically...

1. ...subject to increasing concentrations of substances extracted from the Earth's crust;
2. ...subject to increasing concentrations of substances produced by society;
3. ...impoverished by physical displacement, over-harvesting, or other forms of ecosystem manipulation; and
4. resources are used fairly and efficiently in order to meet basic human needs globally.

The Natural Step relies upon a whole system view with graphics of nature’s cycles and societies’ cycles, graphically presents a “funnel concept” of our journey into the future facing reduced resource availability, and utilizes a scenario-based process known as “backcasting” as a planning tool. Organizations that have effectively incorporated The Natural Step into their sustainability activities have found its principles helpful in creating a shared goal for all people in an organization to work toward and a good foundation for a 25-year sustainability visioning and strategic framework for sustainability.

**Natural Capitalism** is described as “a set of operating principles for a business in the next industrial revolution” and suggests the need for four basic shifts in business practices.<sup>7</sup> As articulated by Amory Lovins, Hunter Lovins and Paul Hawken, Natural Capitalism promotes a business model that would enable companies to fully take advantage of the changing patterns of scarcity. Natural Capitalism is based on the understanding that an economy needs four types of capital to function properly: human capital, financial capital, manufactured capital, and natural capital. The Natural Capitalism Principles (see box below) are seen to provide a fairly comprehensive framework to support a 25-year sustainability strategic visioning process.

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<sup>6</sup> For more information on The Natural Step, see [www.naturalstep.org](http://www.naturalstep.org).

<sup>7</sup> For the seminal discussion of Natural Capitalism, see P. Hawken, A. Lovins, and H. Lovins, Natural Capitalism (2001).

## Natural Capitalism – 4 Shifts in Business Strategy

- Radically increase the productivity of natural resources.
- Shift to biologically inspired production models and materials.
- Move to a “service-and-flow” business model.
- Reinvest in natural capital.

Another strategy involves combining many indicators into a single index that includes components from all three pillars. An example of one such measure is the **Genuine Progress Indicator (GPI)**. It takes data from the national income accounts – the economic data system used to calculate gross domestic product and other macroeconomic indicators – as a point of departure, and adjusts them to capture a range of social and environmental measures. Social and environmental elements are expressed in monetary terms, e.g. monetary valuation of the harm caused by pollution, so they can be added to or subtracted from economic measures. This leads to a single monetary measure that can be tracked over time to assess whether society is making “genuine progress.” An analogous tool is the “**Ecological Footprint**” in which all impacts are measured in terms of the land required to meet human needs and wants, rather than in monetary terms. These kinds of indices provide simple and easily understandable measures of the overall sustainability of society, but these methodologies can raise valid questions about how tradeoffs are handled.<sup>8</sup>

**Zero Waste (ZW)** is an aspirational goal that expresses the need for a closed-loop industrial/societal system, in which only benign, biodegradable materials are allowed to go to nature and other materials remain perpetually in the industrial or technical cycle. The release of toxic and persistent compounds to the biosphere is eliminated. These goals are achieved in practice by the application of a Zero Waste strategy that includes five elements.<sup>9</sup> A zero waste strategy is a clear goal that all employees of an organization can understand and work toward. Since waste is something the organization has paid for and usually must pay to discard, a Zero Waste strategy is a short cut to economic savings that also helps the environment. Use of an endpoint goal of "zero" will lead to rapid innovative improvements. While a zero waste strategy supports all of TNS System Conditions, it is not sufficient as a single tool to achieve full sustainability. For an organization to effectively work toward full sustainability using a Zero Waste strategy, it should also include elements that more strongly support meeting the basic needs of people and the wise use and restoration of the natural environment.

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<sup>8</sup> For more information on GPI, see [www.rprogress.org/projects](http://www.rprogress.org/projects). For an excellent introduction to the Ecological Footprint concept, see M. Wackernagel and W. Rees, *Our Ecological Footprint: Reducing Human Impact on Earth* (1996).

<sup>9</sup> For more information on Zero Waste (ZW), see [www.zeri.org/systems.htm](http://www.zeri.org/systems.htm).

## **Zero Waste – 5 Principles**

1. Zero Waste of Resources - Energy - Materials – Human
2. Zero Emissions - Air - Soil - Water - Solid Waste - Hazardous Waste
3. Zero Waste in Activities - Administration – Production
4. Zero Waste in Product Life - Transportation - Use - End-of-Life
5. Zero Use of Toxics - Processes and Products

### ***The International Dimension***

In 1992 nearly 180 nations gathered in Rio de Janeiro for the U.N. Conference on Environment and Development (UNCED), also known as the “Earth Summit”. At that conference, a commitment was made by over 150 nations, including the United States, to a plan that requires nations to develop a comprehensive strategy for sustainable development. This plan was called Agenda 21.<sup>10</sup> In June of 1993 President Clinton responded to this commitment by establishing the President’s Council on Sustainable Development. In its final report, the Council recommended over 140 actions that “will improve our economy, protect our environment, and improve our quality of life.”<sup>11</sup>

Since the early 1990s, the list of organizations embracing the goals of sustainability has continued to grow. Governments, businesses, and communities around the world have begun creating policy, designing strategies, and offering educational opportunities based on a commitment to develop sustainable solutions.

In September 2002, world leaders marked the tenth anniversary of the Earth Summit when they convened at the World Summit on Sustainable Development in Johannesburg. The WSSD was intended to strengthen the global commitment to fight poverty and protect the environment. Over 220 partnerships were formed across various sectors and nations to promote business, policies and development that address social, environmental, as well as economic consequences.

### ***Private Sector Initiatives***

Many organizations have embarked upon broad initiatives to better align their practices with sustainable development priorities. In the private sector, leading organizations have begun to consider global issues, to recognize and share responsibility for the environmental and social impacts of producing and using their products, and to better engage stakeholders.

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<sup>10</sup> For summary of Agenda 21, see <http://www.un.org/esa/sustdev/agenda21.htm>.

<sup>11</sup> President’s Council on Sustainable Development, Towards a Sustainable America: Advancing Prosperity, Opportunity, and a Healthy Environment for the 21<sup>st</sup> Century (1999).

The World Business Council on Sustainable Development has shown through examples how eliminating waste, producing a superior product, and utilizing renewable energy sources make businesses more profitable and create strategic advantage in addressing emerging markets and constraints.<sup>12</sup> In addition, a growing number of consumers are beginning to demand that the businesses they support are environmentally and socially responsible. With the introduction of models for reporting and measuring success such as the Global Reporting Initiative (GRI)<sup>13</sup> and the Dow Jones Sustainability Index,<sup>14</sup> progress towards sustainable business and development can now be tracked and measured.

Many businesses have begun to include sustainability-related goals in their mission statements and shift their practices accordingly. Several major corporations with operations in West Virginia have begun to address sustainability at the corporate level; these include Weyerhaeuser, DuPont, Dow, Toyota, and AEP.<sup>15</sup> It will be an ongoing task to further develop consistent approaches within industry sectors to integrate social, economic and environmental decision-making.

### ***Sustainable Community Initiatives***

The “sustainable communities” movement has been described as a “quiet transformation” taking place in the United States and around the world, as citizens and local governments explore new ways to plan and act about their future.<sup>16</sup> Place-based or “sustainable community” activities may be the most visible evidence of the sustainability transition in the US.<sup>17</sup>

A sustainable community does not describe any one type of neighborhood, town, city, or region since environmental and socio-economic conditions vary dramatically from community to community, but most sustainable community activities do share certain core concepts and principles. The emerging ideal is a dynamic balance between social well-being, economic opportunity, and environmental quality. A sustainable community seeks a better quality of life for its citizens while embracing environmental stewardship by minimizing waste, preventing pollution, promoting efficiency, and developing local resources to invigorate the local economy. In a sustainable community, a rich civic life and shared information encourage collaborative decision making through stakeholder engagement.<sup>18</sup>

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<sup>12</sup> For more information on the World Business Council on Sustainable Development, see [www.wbcscd.ch](http://www.wbcscd.ch).

<sup>13</sup> For more information on the Global Reporting Initiative, see [www.globalreporting.org](http://www.globalreporting.org).

<sup>14</sup> For more information on the Dow Jones Sustainability Group Index, see [www.sustainability-indexes.com/](http://www.sustainability-indexes.com/).

<sup>15</sup> For more information on the sustainability commitments of these corporations, see: [www.weyerhaeuser.com/environment/sustainability](http://www.weyerhaeuser.com/environment/sustainability); [www.inknowvate.com/inknowvate](http://www.inknowvate.com/inknowvate) (for DuPont); [www.dow.com/about/corp/corp.htm](http://www.dow.com/about/corp/corp.htm); [www.toyota.co.jp/en/environment/sustainable/](http://www.toyota.co.jp/en/environment/sustainable/); and, [www.aep.com/environmental/performance/envreport/envpolicy.htm](http://www.aep.com/environmental/performance/envreport/envpolicy.htm).

<sup>16</sup> For an excellent overview and compilation of resources regarding sustainable communities, see M. Roseland, *Toward Sustainable Communities: Resources for Citizens and their Governments* (1998). Useful websites dedicated to sustainable community information and resources include: the Network for Sustainable Communities at [www.sustainable.org](http://www.sustainable.org) and the website for EcolQ, a quarterly sustainable community magazine, at [www.EcolQ.com/magazine/](http://www.EcolQ.com/magazine/).

<sup>17</sup> The discussion of sustainable communities is adapted in part from: I. Feldman, “The Stakeholder Convergence: Enhanced Public Participation and Sustainable Business Practices,” chapter in Carl Bruch, *The New Public: the Globalization of Public Participation*. (ELI, 2002), updated and reprinted in 33 *Environmental Law Reporter* (ELR) 10495, July 2003.

<sup>18</sup> See, Roseland, *supra*, at p. 14.

*Internationally, sustainable community initiatives are often referred to as “Local Agenda 21” initiatives, recognizing that Agenda 21, produced at the Rio Earth Summit, called for local action to address sustainability concerns. A number of sustainable community umbrella organizations are global in scope. These include the International Council for Local Environmental Initiatives (ICLEI), the Stockholm Partnership for Sustainable Cities, and the Bremen Initiative.<sup>19</sup>*

*In the United States, the U.S. Conference of Mayors and the National Association of Counties have created The Center for Sustainable Communities, a joint venture that is intended to provide a forum for cities and counties to develop long-term policies and programs leading to economic enhancement, environmental stewardship, and social well-being – the three pillars of sustainable communities.<sup>20</sup>*

Some of the best-known Sustainable Community initiatives in the United States include Sustainable Chattanooga, Livable San Diego, and the Burlington (Vermont) Legacy Project.<sup>21</sup> Some cities have developed their own sustainability initiatives. The Seattle Office of Sustainability and Environment was created by ordinance in the fall of 2000 to provide leadership, tools, and information to help reduce the environmental impacts of city operations, and assist Seattle business and citizens to adopt more sustainable practices. The City of Seattle is also currently working on a project in partnership with a non-profit group, Sustainable Seattle, to identify sustainability indicators for neighborhoods and link those to the delivery of city services.<sup>22</sup>

*There have also been several sustainable community initiatives noteworthy for their strong collaboration between corporate and stakeholder interests. Of special interest is Sustainable Racine (Wisconsin), which has been enthusiastically supported by the SC Johnson Company. SC Johnson, as the leading hometown business, was instrumental in bringing the initiative to life.*

*Sustainable Racine is a nonprofit, nonpartisan civic organization formed in 1996 to create a unified vision of the area's future, to decide what resources to marshal to make that happen, and to promote problem solving and partnership among community groups to achieve the goals.*

The vision of Sustainable Racine, like many similar sustainability initiatives, echoes the Brundtland Commission definition of sustainability: “meeting the needs of today as it involves our neighborhoods,

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<sup>19</sup> Websites focusing on international sustainable community or sustainable cities activities include: The International Council for Local Environmental Initiatives (ICLEI) at [www.iclei.org](http://www.iclei.org); the Bremen Initiative at [www.bremen-initiative.de](http://www.bremen-initiative.de); and the Stockholm Partnerships for Sustainable Cities at [www.partnerships.stockholm.se](http://www.partnerships.stockholm.se).

<sup>20</sup> The Joint Center for Sustainable Communities, “Local Tools for Smart Growth: Practical Strategies and Techniques to Improve Our Communities” (2000). See, [www.mayors.org/USCM/sustainable/](http://www.mayors.org/USCM/sustainable/).

<sup>21</sup> See, e.g., Sustainable Chattanooga at [www.chattanooga.net/sustain/](http://www.chattanooga.net/sustain/); Livable San Diego at <http://genesis.sannet.gov/infoipc/templates/esd/index.jsp>; and Burlington Legacy at [www.iscvt.org](http://www.iscvt.org).

<sup>22</sup> See, Sustainable Seattle at [www.sustainableseattle.org](http://www.sustainableseattle.org)

our schools, businesses, young people and our quality of life in such a way that future generations will be able to carry on the effort to meet their own needs.”<sup>23</sup>

Sustainable Racine operates on a few simple principles:

- Cooperative efforts are the key to sustainable progress to assure we own a common vision, work together to break down barriers, and share and accept responsibility for making it happen;
- Education is critically important to a community's sustainability; and
- The process of sustainability will never end, and benefits will be realized along the way.

The Sustainable Racine Initiative relies on maximizing stakeholder input. The launch of the initiative in 1998 was a model of community outreach and participation -- no fewer than 3,000 people participated in the visioning process. The input from these forums built the foundation for a vision and goals of what Greater Racine needed to do to become a sustainable community.

A Sustainable Racine Vision Council, comprised of nearly 150 Greater Racine area residents, developed 80 goals grouped into ten categories dealing with issues such as improving education, ensuring smart growth, improving downtown, and improving neighborhoods. The process then sought to find common ground among competing interests and groups in the community in an ongoing manner. It also sought to “maintain a kind of citizen voice and leadership support for a set of goals over a long period of time.”<sup>24</sup> Sustainable Racine remains a vibrant initiative. It sponsors an annual Make a Difference Day, with the 2000 installment drawing over 11,000 local participants. One follow-on activity has focused on the development of indicators of sustainability relevant to Racine. A multi-stakeholder process was established to evaluate the indicators developed by the working groups over a three-year period concluding in 2003.

### ***The Role of the Public Sector***

Public sector organizations, including environmental regulatory agencies, are beginning to understand the significance of sustainability concepts. The changing stakeholder dynamic integral to any sustainability framework will most directly affect the role of regulators.

Sustainability thinking will find its place in public sector organizations through the strategic planning process by adapting existing programs and enhancing stakeholder engagement. In practice, sustainability means applying some basic principles to the decision-making:

*However you decide to define sustainability for your agency, the word “sustainability” will only become meaningful when it is defined in the context of what your agency does and how that fits into the community it serves, the ecology it lives in, and the government system it is part of. By discussing and debating what it is, you will develop a definition that*

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<sup>23</sup> See, Sustainable Racine at [www.sustainable-racine.com/](http://www.sustainable-racine.com/).

<sup>24</sup> Sustainable Racine Vision Council, “Towards a Vision: Decide Our Tomorrows Today,” April 1998.

*is relevant to what your agency does in context of the larger system (all state and local agencies, your customers, the economy, employees, and the environment).<sup>25</sup>*

Governments, businesses, and communities all over the world are recognizing that we must support an economy that effectively meets human needs while respecting natural systems. Environmental, Economic, and social goals need to be addressed simultaneously during decision-making in order to maintain a high quality of life for future generations. This is the goal of sustainable decision-making. Through the adoption of a sustainability framework, and collaboration among citizens, businesses, and government, we can ensure that our political and economic systems are efficient, productive, and protect the natural systems on which all life depends.<sup>26</sup>

### **A Sustainable Activity is one that:**

- ☑ Addresses the relationship between the environmental, economic and social aspects of an activity.
- ☑ Addresses root causes of problems and prevents or eliminates them, rather than dealing with their consequences.
- ☑ Avoids shifting impacts from one area to another in relation to the environment, the economy, and the community.
- ☑ Recognizes the irreplaceable value of natural capital in supporting all life.
- ☑ If not fully sustainable, provides a transition toward more sustainable outcomes.



<sup>25</sup> Oregon Sustainability Board, "State Agency Guidance for implementing Executive order 03-03" (2003).

<sup>26</sup> The text box below is sourced from Washington State Department of Ecology, "Field Guide to Sustainability," p.20.

## **Chapter 2 – Global and National Trends in Sustainability – and Why it is Imperative That West Virginia Move to a Sustainability Ethic**

Among the states embracing sustainability thinking, Oregon and Washington State are the acknowledged leaders. Both Oregon and Washington State are operating under Executive Orders that mandate the development of sustainability strategies for internal state government operations. North Carolina has implemented a number of activities that can be viewed as options for a future West Virginia initiative. Other states have undertaken sustainability programs, some with potentially broad reach, and others with an intentionally narrow focus, and West Virginia should consider all models. Relative to these other states, the interviews conducted in this process suggest the potential or “readiness” of West Virginia for sustainability activities seems to be at least parallel and in many cases higher than that of other locales. West Virginia should be able to successfully apply not only the models, but also the lessons learned from trial balloons floated in other states.

### **Oregon**

An Executive Order issued by Governor Kitzhaber in May 2000 called for the development of a state strategy for promoting sustainability in internal state government operations.<sup>27</sup> The Oregon initiative was buttressed by state legislation passed during the 2001 regular session.<sup>28</sup> In 2003, Governor Kulongoski issued further findings along with a new Executive Order calling for a “Sustainable Oregon for the 21<sup>st</sup> Century.”<sup>29</sup>

The Oregon Sustainability Act established a Sustainability Board, chaired by the Governor and housed within the Department of Administrative Services. The Board in turn has designated a Sustainability Leadership Team to manage and deliver Board directives to state agencies. Each state agency is required to prepare a Sustainability Plan with performance measures and a strategy to be incorporated into the agency’s two- and six-year strategic plans. An Interagency Sustainability Network is in place, and each agency has designated a Sustainability Coordinator who is responsible for the agency’s compliance with the Executive Order.<sup>30</sup>

The Board, as required under the Executive Order, has issued Guidance for Implementing the Executive Order.<sup>31</sup> This guidance document provides clear suggestions on first steps for agency-level implementation, including, for example, how to select action items:

The following criteria and questions can help guide the selection process:

- I. Quick Wins: Choose the easily accomplished, low-cost actions that will show measurable progress in the near term.

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<sup>27</sup> Oregon Executive Order EO-00-07 available at [www.sustainableoregon.net/execOrder-2000/sustain\\_eo-2000.cfm](http://www.sustainableoregon.net/execOrder-2000/sustain_eo-2000.cfm).

<sup>28</sup> Oregon Sustainability Act available at [www.sustainableoregon.net/sust\\_act/HB3948.cfm](http://www.sustainableoregon.net/sust_act/HB3948.cfm).

<sup>29</sup> Oregon Executive Order EO-03-03 available at [www.oregonsolutions.net/execOrder/sustain\\_eo.cfm](http://www.oregonsolutions.net/execOrder/sustain_eo.cfm).

<sup>30</sup> *Id.*

<sup>31</sup> State Agency Guidance for Implementing Governor Kulongoski’s Executive Order 03-03 available at [www.sustainableoregon.net/agency/](http://www.sustainableoregon.net/agency/).

2. **Cost Savings:** Choose actions that demonstrate cost savings to the agency and the state. Some of these cost savings can help fund future sustainability efforts.
3. **Efficiencies:** Choose actions that improve government efficiency, delivering better service or serving more customers with no increase in cost.
4. **Educational/Visible:** Choose actions with educational value for employees or others. Employees and others will be able to see what you are doing and will be told why you are doing it.
5. **Synergy:** The benefits and lessons of the project can be used in many other agencies, multiplying the benefits many times over. Your project might be the catalyst for many other positive actions.
6. **Comprehensive:** This is usually not difficult to achieve, but agencies should review their actions to be sure that they positively impact the three legs of sustainability: economy, society and environment.
7. **Use Your Leverage:** Do we have real leverage to act on this item at all?
8. **Make a Difference:** If we took action on this item, would it make much difference to enhancing our sustainability?
9. **Adjust Current Activities:** Are there opportunities to modify existing agency activities to make a change rather than starting something new?
10. **Measure Performance:** Do we already have data that measures where we are today so that we can more easily measure change in the future?<sup>32</sup>

And, how to prepare an initial sustainability plan:

1. **Goal(s):** Describe at least one overall goal for sustainability that conforms to the agency's mission and vision. The goal should "stretch" the agency beyond its normal practices. It should be fully compatible with your legislatively approved 2003-2005 budget.
2. **Current Actions:** Describe current actions already underway. (For many agencies this was already prepared as part of the report to the 2003 Legislature by the Board.) It is important to recognize and celebrate how much your agency has already done. Discuss barriers you have encountered in implementing current activities and recommend ways to overcome them.
3. **Three (or more) Actions:** Define at least three new actions that the agency will implement within a year.
4. **Define Effect of Actions:** Describe how those actions will move the agency toward greater sustainability.
5. **Performance Measurement:** Define how the agency will measure its progress toward accomplishing the three or more actions. Targets should be quantifiable.
6. **Responsibility:** Describe who will be responsible to carry out the sustainability initiative within the agency.
7. **Communications Program:** Describe the agency's internal communication and education program related to sustainability.

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<sup>32</sup> Id. at p. 11.

8. Fitting into Agency Strategic Plan: Describe the process the agency will use to incorporate the sustainability program into the agency's strategic plan, including the process for updating them.
9. Coordination with Other Agencies: Describe actions the agency will take to integrate its activities with other state agencies and, where applicable, with other government entities and private entities.<sup>33</sup>

The initial efforts of the Oregon initiative have been closely scrutinized. Clearly Oregon is way ahead of the curve, but a recent evaluation identified both successes and shortcomings in the roll-out of the Oregon initiative.<sup>34</sup> The challenges identified in Oregon two years into the process include:

- Although the initial push from the Governor's office was good, respondents feel that follow through was inadequate and there is a lack of clarity on how agencies and employees should proceed.
- Few mechanisms (such as agency specific leadership teams) have been provided within individual agencies or specific units/programs to guide overall implementation of the Initiative.
- Many agencies lack visions and goals for pursuing sustainability specifically tailored to their mission and work.
- Strategies have not been developed within most agencies... in the absence of sound strategies, the focus has remained primarily on tactical steps (e.g. waste or energy projects). Tactics are "thin" agreements that provide the least leverage for change.
- Only roughly fifty percent of respondents said they clearly understood their role in helping their organization achieve the goals of the Initiative...A lack of mechanisms exists to support employee learning, involvement and innovation.
- Leadership appears to be inconsistent. The Governor's office provided leadership in the initial stages but has not continued to do so. Some agency directors seem to provide consistent direction and require accountability while others do not.<sup>35</sup>

Thus, it is evident from this feedback from participating Oregon agencies that all states face significant hurdles building a sustainability initiative. The lessons learned from the Oregon experience can be instructive to identify challenges that will be faced by West Virginia, or any state, seeking to align its operations with sustainability goals. Careful planning and reasonable expectations should therefore guide West Virginia's efforts to move towards a sustainable future.

### **Washington State**

In Washington, an Executive Order issued by Governor Locke in 2002 created a Sustainability Advisory Council and created the position of Sustainability Coordinator in the Office of Financial Management to assist state agencies in meeting the goals of the Executive Order.<sup>36</sup> The Executive

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<sup>33</sup> *Id.* at p. 9.

<sup>34</sup> University of Oregon Center for Watershed and Community Health, "Building a Sustainable Oregon from Within: A Formative Review of the State of Oregon's Sustainability Initiative" (2002) available at <http://cwch.uoregon.edu/>.

<sup>35</sup> *Id.* at p.6.

<sup>36</sup> Washington State Executive Order 02-03 available at [www.governor.wa.gov/eo/eo\\_02-03.htm](http://www.governor.wa.gov/eo/eo_02-03.htm).

Order followed the initial meetings of a Governor’s Sustainable Washington Advisory Panel. The Advisory Panel, with representatives from both the public and private sectors, is tasked with developing an action plan for a Sustainable Washington.

The overarching goal of the Executive Order is to use human, environmental and economic resources “more wisely,” including the use of energy efficient products, recycled materials and conservation programs. In part, the Executive Order was intended to bring to bear the state’s \$1 billion in purchasing power for environmental products and conservation. The Executive Order directs state agencies to establish sustainability objectives that reduce the impacts of operations on human health and the environment.

The goals mandated in the Executive Order for inclusion in agency plans include:

- Institutionalize sustainability as an agency value;
- Raise employee awareness of sustainable practices in the workplace;
- Minimize energy and water use;
- Shift to clean energy for both facilities and vehicles;
- Shift to non-toxic, recycled and remanufactured materials in purchasing and construction;
- Expand markets for environmentally preferable products and services; and
- Reduce or eliminate waste as an inefficient or improper use of resources.<sup>37</sup>

Each agency is required to create a Sustainability Plan and to produce a biennial report on implementation progress.

The Department of Ecology, for example, developed a plan which focuses on modifying the agency’s practices regarding resource consumption; vehicle use; purchase of goods and services; and facility construction, operation and maintenance.<sup>38</sup> The Department of Ecology will also develop strategies focused on corporate stewardship responsibilities related to the agency’s host communities and strategies that will focus on programs integrating sustainability principles into Ecology’s environmental work.

### **North Carolina**

North Carolina has also made good progress in its commitment to sustainability, but has received far less attention than the sustainability initiatives in Oregon and Washington State. North Carolina is operating under an Executive Order issued by Governor Hunt in 1999.<sup>39</sup> That Executive Order focuses on “environmental sustainability” and thus is somewhat narrower in scope than the Oregon and Washington initiatives.

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<sup>37</sup> *Id.*

<sup>38</sup> Sustainability activities at the Washington State Department of Ecology see [www.ecy.wa.gov/sustainability/](http://www.ecy.wa.gov/sustainability/).

<sup>39</sup> North Carolina Executive Order 156 available at [www.sustainablenc.org/main/orders.htm#156](http://www.sustainablenc.org/main/orders.htm#156).

The Executive Order features provisions for state agency activity in the following areas:

- **Environmentally Sustainable Operations and Practices:** Agencies shall consider and minimize the environmental impacts associated with agency land use and acquisition, construction, facility management, and employee transportation. This section addresses energy efficiency, water conservation, pollution prevention, and land preservation at state-owned and leased facilities. It establishes a goal for agency purchases of alternative-fuel or low-emission fleet vehicles and calls for reductions in employee vehicle-miles driven.
- **Source Reduction and Recycling of Solid Wastes:** Agencies shall reduce and recycle material recoverable from solid waste originating at their facilities and from the construction and renovation of new facilities. New provisions include duplex copying, use of electronic communication in place of paper, and recovery and recycling of leftover food from agency food service operations.
- **Purchase and Use of Environmentally Preferable Products:** Agencies shall procure goods and services that have a lesser or reduced effect on human health and the environment, including products made wholly or in part from recycled materials. This section encourages agencies to give maximum consideration to products that are more energy efficient, less toxic, less polluting, and which generate less waste overall. It raises the goal for agency purchases of recycled paper and paper products.<sup>40</sup>

The North Carolina effort builds on earlier waste reduction and recycling commitments, and directs state agencies to develop and incorporate policies and practices into their daily operations that preserve natural resources, conserve energy, and lessen overall environmental impact.<sup>41</sup>

North Carolina's Project Green, described as "steps to environmental sustainability in state government," is the umbrella for the development of Environmental Sustainability Reports by state agencies and universities.<sup>42</sup> The inclusion in this effort of 17 institutions of higher learning, in addition to the state regulatory agencies, suggests a potential component for an analogous West Virginia initiative.

The North Carolina Department of Environment and Natural Resources (DENR) has built sustainability into its 2003-2005 strategic plans. The DENR game plan might serve as a model for the potential role of its sister agency, WVDEP, in leading a sustainability initiative in West Virginia.

Indeed, prominent among the core strategic directions identified in the most recent plan is a sustainability mission for DENR, styled as "Progress Toward Sustainability: As a leader, participant,

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<sup>40</sup> Id.

<sup>41</sup> See, [www.sustainablenc.org](http://www.sustainablenc.org).

<sup>42</sup> North Carolina's Project Green, see [www.p2pays.org/ref/07/06568/2001/intro.htm](http://www.p2pays.org/ref/07/06568/2001/intro.htm)

partner and communicator, the Department helps North Carolina chart a course toward sustainability.”<sup>43</sup>

The current DENR strategic plan includes the following sustainability-related objectives:

- ✔ **OBJECTIVE 6.1** Be a principal in the implementation of the Sustainable Sandhills Initiative [discussed below], with our original partner, Fort Bragg, and implement the concept for at least one other federal facility and/or regional partner by June 2005.
- ✔ **OBJECTIVE 6.2** Establish a DENR sustainability manager to implement the DENR sustainability program (Divisions and Regional Offices) as well as develop program policy, statewide coordination, and overall program implementation oversight by June 30, 2004
- ✔ **OBJECTIVE 6.3** Working with partners and stakeholders, encourage economic growth through sustainable business development and practices in at least ten organizations by January 1, 2005.
- ✔ **OBJECTIVE 6.4** Increase participation in Environmental Stewardship Initiative incrementally each year by 10% of baseline year.<sup>44</sup>

Within the North Carolina DENR, the Division of Pollution Prevention and Environmental Assistance (DPPEA) has the implementation lead and has developed an action plan for 2004. Specifically, the DPPEA will:

- Support state agency, regional and local approaches to sustainability Statewide and regional efforts
- As requested, provide technical assistance to the Sustainable Sandhills Initiative teams and support staff.
- Work with DENR divisions, EPA, DOD facilities, regional and local governments, and other organizations to identify potential partners for at least one additional regional sustainability effort.
- Continue to develop educational/awareness materials and online resources on sustainability programs and practices for state agencies, local governments and regional organizations. Local government efforts.
- Evaluate and improve DENR’s existing interactions with local governments on issues impacting sustainability.<sup>45</sup>

Finally, Sustainable Sandhills, the pioneering sustainable community effort referenced above, has brought together stakeholders, including Fort Bragg, on a regional scale, defined in part by the common ecology of the Long Leaf Pine ecosystem of the Sandhills.<sup>46</sup> A regional partnership, already

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<sup>43</sup> DENR’s Strategic Plan for 2004 available at [www.enr.state.nc.us/docs/dwq\\_strategic\\_plan\\_2004.pdf](http://www.enr.state.nc.us/docs/dwq_strategic_plan_2004.pdf).

<sup>44</sup> Id.

<sup>45</sup> Id.

<sup>46</sup> North Carolina’s Sustainable Sandhills, see, [www.sustainablesandhills.org](http://www.sustainablesandhills.org).

implemented for land use and conservation practices, has been expanded to include all aspects of sustainability, including environmental impacts as well as economic and social equity issues.

As asserted in its Charter, Sustainable Sandhills is a model for regional sustainability planning that preserves natural resources and enhances economic development, improving the quality of life in the region for current and future generations. At present, Sustainable Sandhills encompasses six counties that range across three river basins, includes three councils of government, represents numerous legislative and congressional districts, and crosses several economic development areas.

One major impetus for Sustainable Sandhills was the Sustainable Fort Bragg program, an initiative aimed at making Fort Bragg a sustainable installation within the next twenty-five years by significantly reducing the environmental footprint of the base. Because several of the goals for Sustainable Fort Bragg extend beyond the installation boundary, Fort Bragg realized that in order to be sustainable, it had to be part of a sustainable region, rather than an isolated organization.

Another regional sustainability effort, similar in structure to Sustainable Sandhills, was recently launched in the Charlotte, North Carolina area. The initiative does not stop at the state line; this regional effort crosses the border into neighboring counties in South Carolina.<sup>47</sup> These regional initiatives in North Carolina suggest options for structuring watershed-based or other regional projects in West Virginia.

### ***Other Notable State Initiatives***

Other states, including New Jersey, Massachusetts, Pennsylvania, and New York have initiated programs that may serve as components of future comprehensive sustainability initiatives, and these deserve consideration as models for sustainability activities in West Virginia.

In 1999, **New Jersey**, under then-Governor Christie Whitman, launched a Sustainable State Initiative. The New Jersey Sustainable State Initiative actually had its origins in 1994 when members of the Governor's staff, legislators, and leading conservationists traveled to the Netherlands to observe the Dutch process for developing publicly accepted goals and developing indicators to track progress towards a vision of a sustainable future.<sup>48</sup>

In 1995, a not-for-profit group, New Jersey Future, convened a broad group of stakeholders which developed a set of sustainability goals and indicators for the state. The process involved close to two thousand participants from state government, NGOs, business, educational organizations, faith-based organizations, local government, and other citizen groups. New Jersey Future published a report, "Living with the Future in Mind," in 1999.<sup>49</sup> It included a description of the goals and a presentation on

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<sup>47</sup> Personal communication, Gary Hunt, North Carolina DENR, September 2, 2004.

<sup>48</sup> Sustainable State Project described at [www.njfuture.org/HTML.src/sustainablestate.html](http://www.njfuture.org/HTML.src/sustainablestate.html).

<sup>49</sup> See, [http://njssi.net/about\\_us.php](http://njssi.net/about_us.php).

each indicator, showing trends in its value over the past decade and describing how it contributes to the sustainability goals.

Building on this work, Governor Whitman issued an Executive Order in 1999<sup>50</sup> requiring all state agencies to pursue policies compatible with the goals, collaborate with each other to further the goals, and to report each year on their progress.

In response, the New Jersey Department of Environmental Protection convened an interagency working group, which issued an update of the indicators in 2000, and the working group undertook a detailed analysis of how state activities could be used to further the sustainability goals. The participants in the Sustainable State project, both at New Jersey Future and in the Department of Environmental Protection, sought to establish targets for state progress, and to encourage businesses, institutions, government agencies, and individuals to set their own goals to help the state achieve its targets.

Currently, the Sustainable State effort in New Jersey is directed by an independent institution, the Sustainable State Institute, established in June 2002 with affiliations to both Rutgers University and the New Jersey Institute of Technology.<sup>51</sup> Among other activities, the Sustainable State Institute has developed 41 indicators related to 11 goals; of these, the state has adopted targets for one-third of the indicators.<sup>52</sup>

In **Massachusetts**, the State Sustainability Program was formed by Executive Order No. 438 in July of 2002 to help state agencies minimize the environmental impacts of their operations and activities, and to promote innovative sustainable practices in Massachusetts.<sup>53</sup>

The program is intended to ensure that state government remains in compliance with all environmental laws and regulations, while serving as a model by promoting sustainable practices that reduce the state's environmental impact and save taxpayer dollars. The Executive Order establishes a Coordinating Council, made up of 16 agencies and offices, to direct, govern and manage the program. The Council is co-chaired by the Executive Office of Environmental Affairs and Executive Office for Administration and Finance.

The road towards sustainability in Massachusetts is based largely on the state's tradition of robust pollution prevention legislation.<sup>54</sup> The Council and all state agencies will focus on reducing state emissions of greenhouse gases, increasing waste prevention and recycling rates at state facilities, and eliminating, wherever possible, the purchase of products and generation of waste containing mercury. Agencies will also take steps towards sustainable design and construction, the purchase of environmentally preferable products, energy efficiency and water conservation, and use of integrated

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<sup>50</sup> New Jersey's Executive Order on Sustainable Development available at [www.njfuture.org/HTML.Src/1999ExecutiveOrder.html](http://www.njfuture.org/HTML.Src/1999ExecutiveOrder.html).

<sup>51</sup> New Jersey Sustainable State Institute at [www.njsi.net/](http://www.njsi.net/).

<sup>52</sup> See, Joy Hecht, "Sustainability at the State Level: Strengths & Weaknesses," presentation delivered March 14, 2003.

<sup>53</sup> Sustainability activities in Massachusetts see, <http://www.mass.gov/envir/Sustainable/default.htm>.

<sup>54</sup> Resource Renewal Institute, "State of the States" (2001) at p. 21.

pest management techniques. The Council will be responsible for producing a Sustainability Implementation Guide and issuing annual reports on the Program's progress.

**Pennsylvania** has a number of ongoing sustainability activities. Pennsylvania's state government has officially decided, at the highest levels, that sustainability should be a core consideration underlying all policy decisions.<sup>55</sup>

The use of sustainability as an organizing concept in Pennsylvania can be traced to the work of the 21st Century Environment Commission, which was formed in July 1997. Then-Governor Ridge tasked the Commission to define the environmental priorities for Pennsylvania in the next century. The Commission was to recommend methods to achieve the selected priorities and determine appropriate indicators of progress toward those goals. The Commission has formulated a "Vision for Pennsylvania in the 21st Century," and it has identified priorities in the areas of stewardship and environmental education, sustainable use of natural resources, human health and environmental protection, and land use.

The sustainability theme has continued under the administration of Governor Rendell, and it has become a useful vehicle for the Pennsylvania Department of Environmental Protection (DEP), especially through public-private partnerships and community-level activities. Most recently, the Pennsylvania DEP, through its policy office, has sought to better align its environmental management goals with energy policy in the state.<sup>56</sup>

In **New York**, the state legislature has been asked to consider a sustainability strategic plan or a "green plan" under the model first developed in the Netherlands. The draft legislation would create a task force that would evaluate the feasibility of "adopting a goal-oriented, performance-based regulatory system."<sup>57</sup> Meanwhile, various county-level efforts, e.g. upstate Tompkins County (including Ithaca, NY) and downstate Westchester County, have launched Sustainability Task Forces.<sup>58</sup>

### ***Prospects for West Virginia***

In 2003 the Resource Renewal Institute (RRI) published a report entitled, "The State of the States," which evaluated state-level readiness for sustainability activities. This comprehensive appraisal systematically reviewed "individual state preparedness to implement sustainability as integral public policy."<sup>59</sup> The Resource Renewal Institute advocates that state-level action is the key to advancing sustainability implementation in the US.

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<sup>55</sup> Pennsylvania Consortium for Interdisciplinary Environmental Policy, "Pointing Pennsylvania Towards A Sustainable Future," (2002), available at <http://www.paconsortium.state.pa.us/programs/SustainablePennsylvania.htm>.

<sup>56</sup> Personal communication, John Dernbach, Director, Office of Policy, PA DEP.

<sup>57</sup> Resource Renewal Institute, "State of the States" (2001) at pp. 22-23, 83-85.

<sup>58</sup> Sustainability for Westchester County (NY), see [www.ActionforTomorrow.org](http://www.ActionforTomorrow.org); Sustainable Tompkins County (NY), see <http://www.ithaca.edu/sustainability/sustain6.html>.

<sup>59</sup> Resource Renewal Institute, "State of the States" (2001), full report available at [http://greenplans.rri.org/resources/pubs/sos\\_index.html](http://greenplans.rri.org/resources/pubs/sos_index.html).

The RRI evaluation utilizes the lens of green planning, a widely applied sustainable development strategy, and applies a multi-faceted Green Plan Capacity (GPC) Index. The report provides the GPC Index rankings of states and descriptions of the individual indicators that together make up the Index. The report also summarizes strategies being undertaken by states to address sustainable development.

Many of the states discussed above were ranked highly in the RRI report. The RRI report, using the GPC methodology, placed West Virginia in the lowest quintile.<sup>60</sup>

Having completed our stakeholder assessment by exploring the West Virginia situation at much deeper level than provided for in the RRI study, it is clear that the methodology employed by RRI was too superficial to capture a full appreciation of the sustainability ethic and opportunities for further activities which exist in West Virginia. The following chapters distill the findings of our stakeholder assessment and suggest a roadmap for initial steps towards a Sustainable West Virginia.



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<sup>60</sup> Resource Renewal Institute, "State of the States" (2001), full report available at [http://greenplans.rri.org/resources/pubs/sos\\_index.html](http://greenplans.rri.org/resources/pubs/sos_index.html)

## Chapter 3 – Sustainability in West Virginia Today

### *Perceptions... and Misperceptions*

By reading the RRI report, one would think that sustainability is a foreign concept to West Virginia's populace. Such thinking would be grossly flawed. As we traveled around West Virginia we found classic examples of the linkages between environment, economy and community. Some of these examples are state-driven; others are of regional and local origin. Efforts are underway in the Southern Coalfields to the Northern Panhandle and in many venues in between. Movement towards a "Sustainable West Virginia" is, in fact, already well underway.

So why does sustainability seem like such a foreign concept within the state and across its borders?

### Concepts & Vocabulary

First, the conceptual understandings and vocabulary of sustainability do not commonly exist in West Virginia today. The overwhelming majority of interviewees claimed not to understand the term "sustainability" -- though many made one or more of the critical connections when pressed for a response. Still, it is apparent that technical understandings of sustainability are lacking when respondents define sustainability as:

- Waking up in the morning and going to work;
- Preservation of natural resources for all future generations;
- Job growth;
- Terminating the extraction of coal; and
- "Biomass."

While each of the above might be considered to be part of a sustainable future, clearly none makes the linkages that a Sustainable West Virginia must have in place.

It is not necessarily important that people agree on definitions and phraseology, but it is important that interested parties can easily communicate within broad-brush conceptual terms. Education of leaders in the private sector, government and non-governmental organizations will be critically important to transition to a sustainability ethic in the future.

We were more encouraged by the following interview responses:

- ☑ Meet the needs of current generation without unduly effecting future generations in terms of quality of life and environment;
- ☑ Developing a society so that it depletes its natural resources minimally;
- ☑ The peoples' way to love and exist and sustain themselves from the earth. Sustainability is the "want" to live, survive and co-exist with plants and animals. To continue a culture that is generations old;

- ☑ Leaving this earth better than how I found it so that those who follow can experience at least what I've got and hopefully better;
- ☑ Build capacity so that people can make their own choices; and
- ☑ Satisfying the needs of the current generation... protecting the environment... making sure that there are natural resources available for future generations.

At the stakeholder session, the responses were uniformly sophisticated. For many of the attendees, this demonstrated a rapid uptake of sustainability concepts over the course of this project. Following are some excerpts from the individual introductions:

- ☑ Meeting our present needs without undermining basic needs;
- ☑ Protecting and preserving and trying to reclaim our earth for future generations;
- ☑ Thinking about our impact to the earth seven generations from now so that our families can 'have it as good as it was when we were young;''
- ☑ Conducting business in a way that embraces sustainability (which might include environmental management systems), then leaving the area in a way that it can be utilized by future generations;
- ☑ Sustaining resources that we have now in a way that people will treasure and love them in the future;
- ☑ Changing the way we think;
- ☑ Considering social, environmental, and economic issues for this generation and the next, both where we live and where we do not;
- ☑ Taking only what you need for basics and leaving resources for the future – not punching holes in the web of life. Whatever we do to the web, we do to ourselves because we are part of the web;
- ☑ It's a global issue;
- ☑ Not leaving footprints on our future;
- ☑ Striving for a balance between environmental protection and the economy;
- ☑ Developing social justice; and
- ☑ Building a better future for all West Virginians... including people.

### Need for Connectedness

Second, the various sustainability efforts underway in West Virginia today are largely disconnected. There is no institutional authority for ensuring the sustainability that efforts are in any way coordinated. Each project seems to be largely removed from any larger vision. Many of these efforts are financially supported by out-of-state resources (foundations, federal entities and other grant-making entities). Leaders of sustainability efforts are oftentimes responsible for blazing new trails and re-inventing the proverbial wheel. There is no consistent or systematic recording of progress.

As a result, external observers are left with the impression that sustainability in West Virginia appears to be many small oases in a desert of poverty, environmental exploitation and rural blight. While this may be true at some level, the quality of these oases leaves our analytical team extraordinarily

hopeful. Efforts need to be made to coordinate these activities, share lessons learned, and leverage resources in ways that create synergies between efforts and momentum throughout the state.

Our interviews and our stakeholder session lead us to believe that as a culture, West Virginians are as passionate about the land and their communities as anyone in the country. They are a proud people who are somewhat isolationist and largely reluctant to ask for help though they do welcome insight when it is offered.

### ***Examples of Sustainable Projects, Practices and Programs Currently Underway***

Aquaculture is an industry being developed in abandoned mines. The new industry is touting several enormous successes and true examples of sustainability. Among them, aquaculture is written into the reclamation permit for the Robin Hood mine site in Boone County – the first time that such provision has been written into a permit.<sup>61</sup> The Canaan Valley Institute is working with Trout Lodge and helping them to expand their fish markets. They are also working on a pilot scale operation in conjunction with a proposed methane digester project.<sup>62</sup> Finally, there are 37 high schools that now provide for aquaculture studies in their curriculum. Environment, economics and community are being brought together.<sup>63</sup>

The US Corps of Engineers has a solid history providing resources to support projects that address environment, economy and community in West Virginia. The West Virginia Flood Recovery Special Needs Project was undertaken in response to the flooding events in West Virginia in 2001; The West Virginia University Extension Service applied for and received a \$93,971 grant from the USDA Extension Service entitled West Virginia Flood Recovery Special Needs Project. With funding available from this grant, the University is pursuing sustainability objectives to respond to future natural disasters on a more systematic and comprehensive basis.<sup>64</sup>

- Objective 3: To develop and pilot test a new volunteer-based, rapid-response educational program capability to provide timely and factual information to victims of natural disasters.
- Objective 5: To develop and pilot test a new training and technical assistance program for flood-impacted communities that focuses on the rebuilding of their water and sewage infrastructure. This new program will include training and technical assistance extended to flood-impacted homeowners who have private septic systems and/or water wells.
- Objective 6: To assist the State Disaster Recovery Board in the development and implementation of plans and proposals to rebuild local communities impacted by the flood. This includes assuming a lead role in helping to secure community and citizen involvement in this planning and development effort.

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<sup>61</sup> From: <http://www.wvu.edu/~agexten/aquaculture/2004forum/Delabbio.pdf> page 4.

<sup>62</sup> Ibid., p. 10

<sup>63</sup> Ibid., p 17.

<sup>64</sup> From: <http://www.wvca.us/flood/chapter5.php>.

- Objective 8: To conduct Community Design Team site visits in several communities impacted by the flood event. The intent is to assist local citizens to identify opportunities for rebuilding their homes and communities outside of the floodplain.

**Grassland Farmer's Program and the Activities of the NRCS:** The Natural Resources Conservation Service works with West Virginia's 14 Conservation Districts, West Virginia Conservation Agency, 6 West Virginia Resource Conservation and Development Councils, and other federal, state, and local agencies to help farmers and landowners conserve, improve, and sustain natural resources on West Virginia's 15.5 million acres of land.<sup>65</sup>

**Toyota:**<sup>66</sup> The new Buffalo, West Virginia plant represents the dawning of a new sustainability culture in West Virginia. With an investment of nearly \$800 million, Toyota has created well over 900 manufacturing jobs for the state. The new facility takes an integrated management approach to management systems and is both ISO 14001 and QMS 9001 certified. As much as any other facility in the state, Toyota brings a sustainable communities ethos to its local surroundings and through the state by providing support to a range of educational programs and other community driven projects.



In 2003, the West Virginia plant became the first Toyota plant operating in North America to achieve zero landfill status. Located in Buffalo, West Virginia, the plant began production in 1998 and builds four- and six-cylinder engines and automatic transmissions. The engine plants have eliminated landfill waste by reducing material usage, recycling and resource recovery. The recovery is achieved by turning waste into reusable energy. Waste reduction is one component of Toyota's overall Environmental Action Plan covering the period 2001 through 2006. The Plan also includes targets for air emissions, water conservation and energy saving. The over-arching plan will be phased into operation in a series of cycles with an overall reduction goal.<sup>67</sup>

**Hatfield-McCoy Trail Systems:** Nearly 500 miles of trails have been created via agreements with 350 landowners across over 5,000 acres in Logan, Mingo, Wyoming and Boone counties as well as on

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<sup>65</sup> From: <http://www.wv.nrcs.usda.gov/>.

<sup>66</sup> Aerial photo of Buffalo, WV facility appears at: <http://www.toyota.com/about/operations/manufacturing/tmmwv/photogallery.html>.

<sup>67</sup> Reported at: <http://www.toyota.com/about/news/manufacturing/2003/05/12-1-alabama.html>.

private lands throughout southern West Virginia. This is bringing recreation and tourism opportunities to the more economically depressed regions of the state. For example in Mahan, Gilbert, and Matewan, portions of the trails have community connectors that have spawned 24 new businesses.

**West Virginia Stream Partners Program:** Stream Partners is a cooperative effort of the West Virginia Conservation Agency, Department of Environmental Protection, Division of Forestry, and Division of Natural Resources. The program is housed within the WVDEP's Division of Water and Waste Management. "Stream partners" are awarded \$5,000 grants to improve the quality of life in and around their stream and watershed. A "stream partner" is a community-based organization comprised of local citizens, industry, environmental groups, sportsmen, local government, and landowners whose mission is consistent with the goals of the program. A Stream Partner:

- Identifies the issues affecting their stream and the watershed
- Forms community-based partnerships to accomplish present and future watershed improvement projects and goals.
- Completes a watershed improvement project that will restore, protect, or enhance their stream or watershed.
- Establishes a reputation in the community as a voice of the people that gets results.
- Educates their community on the importance of restoring, protecting, and enhancing their stream or watershed.
- Is willing to match 20% of a \$5,000 seed grant with cash and/or in-kind service contributions to complete sustainable watershed improvement projects.

Two outstanding examples of productive watershed networks include:

- I. **Paint Creek Watershed Efforts:** The Lower Paint Creek Association, Inc. is made up of local citizens forming a grass roots effort to improve the Paint Creek watershed in ways that benefit all citizens. Their mission is to return the Paint Creek watershed area to a place of recreational beauty with clean water and a sparkling environment. The group's goals are to improve the water quality of Paint Creek to such a degree that it will support a reproducing trout population, beautify the area, enhance pride and enjoyment of living in the watershed and increase more obvious and passive recreation. Recently, volunteers filled over 12,000 Adopt-a-Highway bags, collected over 7,979 tons of solid waste, recycled 127.7 tons of solid waste, disposed of more than 5,500 car tires, hand cleaned over 14 miles of stream, built K-dams in tributaries and the stream, monitored Paint Creek and its tributaries, identified tributaries with signage, hosted a "Stream Doctors Workshop" for the Izaak Walton League of America (IWLA), secured over \$1,086,244 in grants and in-kind services, built a handicap accessible fishing pier at Ash Branch, built a 1/8 mile walking track for health and safety of walkers, built a picnic site at Ash Branch, placed boulders into the stream to prevent stream bank erosion, built a boat ramp and dock into the Kanawha River at Hansford, built school bus stop shelters for children's safety, taught the grass roots/watershed approach to environmental awareness at schools, and helped in the formation of new watershed groups.<sup>68</sup>

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<sup>68</sup> From: <http://www.angelfire.com/wv/lowerpaintcreek/>. Music apropos of the website.

2. **Buffalo Creek Watershed Project:** A significant project often heralded by the Department of the Interior is the Buffalo Creek Watershed Project. Through the cooperation of multiple landowners, local and State agencies and the Fish and Wildlife Service, the Buffalo Creek watershed is being restored through such efforts as installing over 40 miles of riparian stream bank fencing, planting native warm-season grasses, installing cattle crossings, and providing alternate watering sources for livestock. The project's focus is to allow farming to continue at the same time as assuring that the natural conditions of the Buffalo Creek Watershed are restored to protect the Monongahela River in West Virginia and the other waterways in Pennsylvania.<sup>69</sup>

**The Sustainable Forestry Initiative:** In 2001, the West Virginia House of Delegates formally endorsed “the Sustainable Forestry Initiative (SFI) and its self-regulatory objectives of increasing knowledge, professionalism and stewardship that will foster the sustainability of West Virginia's forests.” It further resolved that, “The House requests that the public, forest landowners and resource agencies embrace and support the objectives of the SFI in this State.”<sup>70</sup> West Virginia has 286,400 surface mined acres on 2,008 sites (though few are presently owned by SFI companies) that could be returned to productive use. Most surface mined properties have terrain that would support plantation planting. Tree plantations are proposed for multiple reasons:

- As a way to demonstrate to the forestry industry the energy and dollar costs savings associated with harvesting of timber from a plantation verses naturally occurring tree growths;
- Increased production of biomass; and
- As a measure to return land to productive use.

Surface mine sites also have haul roads in place, which makes them conducive to eventual timber harvesting.

**Industries of the Future:** The Division of Forestry at West Virginia University is working with Mead Westvaco on a poplar plantation demonstration project. This activity is funded through the State Energy Program. This three-year project supports 100 acres of poplar plantation planting at multiple surface mined sites. Thirty to thirty-five acres of trees would be planted in each project year. In this calendar year approximately 20,000 seedlings have been planted on a thirty acre surface mined site north of Rupert in Greenbrier County.<sup>71</sup>

**Watershed Celebration Day:** Festivities to raise water quality and quantity awareness, including watershed ecology and involve hundreds of people.

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<sup>69</sup> From: <http://www.nbc.gov/accomplishments/accomplishments.cfm>

<sup>70</sup> From:

[http://www.afandpa.org/Content/NavigationMenu/Environment\\_and\\_Recycling/SFI/Supporters,\\_Awards\\_and\\_Resolutions/West\\_Virginia.htm](http://www.afandpa.org/Content/NavigationMenu/Environment_and_Recycling/SFI/Supporters,_Awards_and_Resolutions/West_Virginia.htm).

<sup>71</sup> From: <http://iofww.nrcce.wvu.edu/projects/forestry/SustForestry.cfm>

## **Today's Leadership – Tomorrow's Future**

The interviewees were all asked: “Who should lead the charge toward sustainability?” Interestingly, there was little consensus on this topic. Many respondents believed that industry needs to set the stage. Others said that the Governor is responsible for carrying the sustainability banner. Still others indicated that sustainability starts at the grassroots.

After the stakeholder session, participants offered further suggestions, including:

- “A public-private partnership...”
- “...the Governor’s office”
- “coordination through designated Cabinet-level officials”
- “various leaders of business and enterprise”
- “with everyone – no matter what level”
- “me” (i.e.. each individual’s responsibility to lead)

As one participant noted, “good leadership would help, but if each of these groups did our part, things would begin to happen.” Another participant concluded:

*Clearly, responsibility for a Sustainable West Virginia resides with everyone. In terms of a state effort there needs to be an institutional home, and there needs to be a person or entity that is publicly responsible and can interface with not only governmental entities, but with citizen groups, industry, etc.*

In the end, the analytical team observes that West Virginia has a culture of fostering leadership when leadership is needed. All sectors and quadrants can contribute. However, we believe that successful alignment of these efforts will require galvanizing leadership and an institutional structure that can “connect the dots.”

### Resource Roundtable

We were most intrigued by the existence of the West Virginia Resource Roundtable. In their charter, the group indicated a commitment to “seeking collaborative workable solutions to current socio-economic, resource management and infrastructure development concerns and proposing strategies to identify and resolve future issues.”<sup>72</sup> Indeed, the “purpose” statement reads like a mandate for West Virginia to embrace sustainability thinking:

*The Resource Roundtable will capitalize on West Virginia assets: our citizens, natural resources, educational institutions, business and industry infrastructures and our West Virginia heritage of innovation, integrity and industriousness and will protect and promote the health, safety and general welfare of the people of the State. The Resource Roundtable*

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<sup>72</sup> “Memorandum of Agreement dates 1.28.04 and reflecting signatures of April and May of 2004.

*will endeavor to encompass and/or consult with all sectors: private, corporate, non-profit, federal, state, county, municipal and instrumentalities thereof.*

The founding members included the senior ranking official within West Virginia agencies including the:

- ☑ Cooperative Extension Service;
- ☑ Agriculture and Forestry Experimentation Station;
- ☑ Division of Forestry;
- ☑ Division of Natural Resources;
- ☑ Department of Agriculture; and
- ☑ Conservation Agency

Many of the commitments incorporated into the "vision" statement of the Resource Roundtable set the stage for a broader sustainability mission. The examples of sustainability concepts expressed include:

- Secure continual "stakeholder input" prior to making program decisions and to monitor program impact;
- Improve measurable local program impact and efficiency;
- Guide legislation and policy development that creates an environment conducive to economic growth and resource stewardship;
- To reduce competition for resources to support these and associated agencies and to foster cooperation for the purpose of obtaining mutual goals; and
- To empower providers by securing sustainable funding mechanisms.

The establishment of the Resource Roundtable was a watershed event in West Virginia's transition towards sustainability. Going forward, the potential is there for an expanded Roundtable to play a key role in providing an institutional home for sustainability initiatives. (See further discussion in Chapter 6)

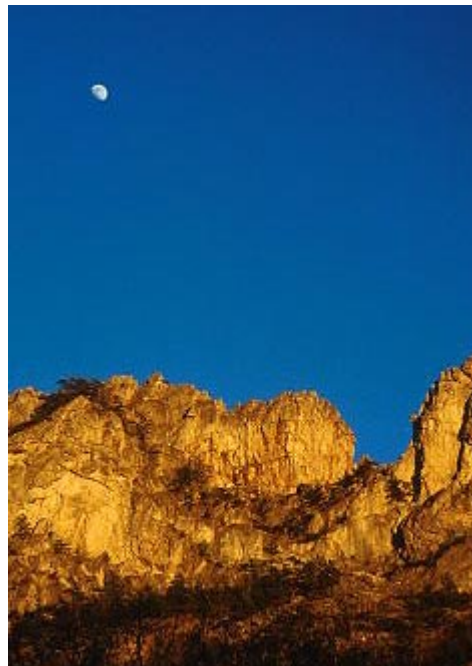
### Research and Education

Research is a key to sustainability not only in West Virginia, but also worldwide. The National Energy Technology Laboratory (NETL) focuses on end use technologies and is a valuable and proximal partner in West Virginia's sustainability efforts. In particular their work in carbon sequestration can have enormous meaning for West Virginia's sustainable future.

Education will be a critical element of a Sustainable West Virginia. We are intrigued by a range of efforts underway including **Project Wet, Project WILD and Project Learning Tree (PLT)**. These are conservation education programs for grades K-12 that provide teachers with effective classroom materials through training workshops. Project Wet (WVDEP), Project WILD (West

Virginia Division of Natural Resources) and Project Learning Tree (West Virginia Division of forestry, West Virginia Forestry Association, West Virginia Conservation Education Council, and U.S. Forest Service) programs are sponsored through their respective agencies/organizations and work through a service network comprised of facilitators and a state coordinator. The goals of the programs are to help young people gain knowledge of and an appreciation for our natural resources and environment. The **Envirothon** is sponsored at the state level by the West Virginia Conservation Agency and nationally by the National Association of Conservation Districts. In 2004, nearly 1,000 high school students were exposed to the complexity and importance of natural resource management through this hands-on competition.

Across the public sector and beyond, today's leadership is remarkably knowledgeable about the principles of sustainability. Gaps in understanding, however, exist at the staff and middle management levels of many institutions. Momentum for sustainability will be driven by the actions of this cohort, so closing the gaps must become a high priority for today's leadership. Staff and middle management will need to learn more about the principles of sustainability through both research and education.



## **Chapter 4 – Sustainability Tomorrow**

The preceding chapter identified many of the existing building blocks that can form the foundation for a successful transition to sustainability in West Virginia. This chapter focuses on the drivers for change and the barriers that must be overcome in order to advance sustainability thinking. A sustainable future for West Virginia poses many challenges for government, industry and communities. Yet the analytical team is optimistic, because we have seen leadership for sustainability emerging in the smallest communities and in the largest and most educated cities... and everywhere in between.

### ***Drivers of Sustainability***

In interviews and in the stakeholder workshop, several themes emerged as drivers of sustainability:

#### **Drivers of Sustainability in West Virginia**

- Environment, ecology, impacts
- Economy, profits, diversification
- Leadership, governor, localities
- Tie to the land
- Education – kids, leadership, technical support

In the course of the interview process, a handful of themes emerged relating to drivers that seemed especially relevant to the West Virginia context. Three themes – the pride in Mountaineer culture and West Virginia’s natural resources; the utility of technical support; and crisis as a crucible for leadership – are discussed below, followed by a summary of other drivers identified by the participants in the stakeholder session.

### **A Passion for the Land and the State’s Natural Resources**

Outside of Native American tribes, this analytical team has rarely interacted with a diversity of people so connected to the land. West Virginians have a terrific “sense of place” and often refer to where they are from by county before any other unit of governance. Their pride in the Mountaineer culture is astounding – once it is drawn out. As a core value, the people will do all they can to protect the land. The Canaan Valley Institute embodies this ethos. Their history tells the tale:<sup>73</sup>

As recently as one decade ago, 17,000 acres of privately owned land in the Canaan Valley of West Virginia were earmarked for energy development. Today, 28,000 acres are now within the acquisition boundary for the Canaan Valley National Wildlife Refuge. This dramatic change in the proposed use of

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<sup>73</sup> From: <http://canaanvi.org/about/history.asp>

land came about because of a small group of concerned citizens who later formed the Canaan Valley Task Force. In eight words, this group asked the biggest question that can ever be asked about any place, "What is the best use of this land?"

What the Canaan Valley Task Force asked is an ecological, sociological, and economic question: a question that challenged stakeholders to examine prevailing philosophy and values, and to evaluate current needs and those of future generations.

The Canaan Valley Task Force was established after an essential permit for construction of a pumped storage hydroelectric station-the proposed Davis Power Project-was denied by the US EPA and the denial upheld. Through an appropriation of funds obtained by U.S. Congressman Alan B. Mollohan and coordinated by the late Chris Clower of the U.S. Fish and Wildlife Service the Canaan Valley Task Force was formed to continue the work it began informally. Its mission was to ensure that all stakeholders in the land in question had an adequate voice and access to all critical information so that they could make the best decisions possible and determine the future themselves. The group disbanded after its work was fully accomplished, having determined that maintaining the area as wilderness was the best and proper use, and seeing this decision become law in 1994 with the formation of the Canaan Valley National Wildlife Refuge.

The Canaan Valley Institute (CVI or "the Institute") is the next chapter in the legacy left by the Canaan Valley Task Force. The Institute took its name in honor of "The Force" that set a precedent for process and action resulting in sustainable development. To ensure that the lessons learned from the Canaan Valley experience were not lost, and once again under the sponsorship of Congressman Mollohan, an informal group began to explore ways to replicate the model used in Canaan Valley by the Canaan Valley Task Force and apply it throughout the Mid-Atlantic Highlands. Out of this group, Canaan Valley Institute was created in 1995 to aid stakeholders in their efforts to implement locally determined solutions to problems that threaten the sustainability of their watersheds or communities.

### Technical Assistance

Many state agencies are committing significant financial and human resources to providing technical assistance to their interested communities. This technical support, if better coordinated and linked in a sustainability framework, can be a powerful driver for advancing the sustainability transition. Several of these technical support initiatives are deserving of special mention:

- West Virginia University provides technical assistance to communities in the areas of agriculture and natural resources, families and health, 4-H youth development and community, economic and workforce development. This agency has no regulatory authority yet works hard to provide educational and service programs that are of benefit to the state's citizenry. Local county extension agents, with a variety of specialties, are located in every county of the state.
- The West Virginia Development Office provides one on one consulting in finance, personnel, business planning and development as well as formalized training in several areas of interest to

commerce. They also maintain a network of non-profit organizations that provide business services to minority communities and within impoverished areas.

- The West Virginia Division of Forestry (WVDOF) provides technical assistance to private landowners and the forest products industry. Assistance to private landowners is primarily in the form of planning and implementation of practices recommended in a forest management plan that will enhance forest productivity, water quality, wildlife habitat, and recreational opportunities. The DOF also assists industry in ways that provide jobs and markets for private landowners which in turn allows for investment in conservation practices, thus sustaining the resource.
- The WVDEP offers a great many forms of technical assistance that support sustainability. The Small Business Assistance Program provides assistance to qualified small businesses on air-related regulatory issues. The Small Business Ombudsman acts as an advocate for small businesses on environmental regulatory issues.
- The West Virginia Conservation Agency also provides a variety of assistance services to their stakeholder communities.

### A Culture of Initiative and Partnership

Interviewees often related stories of leadership emerging from crisis. A common denominator in many of the success stories was the ability of a leader to forge partnerships across political and ideological chasms. Three contemporary examples were raised often: The Tucker County Landfill law energized by Davis and Thomas, “A Vision Shared” and “Inspire.”

Partnerships that result in success stories offer the potential to be one of the most effective drivers. These tend to motivate government officials in West Virginia – particularly at the local level. Again and again the analytical team was told that success stories need to be homegrown. Those from outside the state are generally viewed with skepticism.

### ***Refining the Drivers***

Many of the same issues identified in the interview process were also raised in the stakeholder session. Other ideas were added, resulting in the refined list of drivers listed in the text box on page 40.

The participants split out “environment and ecology in our daily lives” as a distinct driver. The comments included a call to recognize that “the environment is our sustenance,” and a warning that West Virginian’s not “shoot themselves in the future” by ignoring the environmental damage being inflicted today. Most poignantly, one participant simply stated: “We see the consequences; we live with them.”

Several participants felt strongly that the economy should be viewed as a driver. Two comments summarize the discussion best: first, a call to recognize that a “diversification of the West Virginia economy” is the pathway to sustainability; and second, that in any discussion of drivers the revitalization of the state’s manufacturing base will be an essential component.

Though the discussion at the stakeholder session did not highlight the technical assistance component quite as specifically as the analytical team had, there was consensus that a broader “education” driver was significant. The set of education needs included environmental literacy for kids; better awareness of sustainability issues in the leadership ranks; and, as a separate matter, technical assistance to business and industry.

### ***Barriers to Sustainability***

As a largely consumptive culture, Americans are unaccustomed to considering beyond the availability of resources. Furthermore we oftentimes don’t consider the long-term implications of the types of economic growth on a given locale. In the course of our interview process, we identified several barriers which we considered significant in the West Virginia context – a history of exploitation; economic barriers; and communication barriers. We also noted concerns that were raised regarding the technical sophistication of regulators and the reactive tendencies of government. These barriers are discussed below, and then supplemented with thoughts from the stakeholder session.

#### **Barriers to Sustainability in West Virginia**

- Recognition of the scale/magnitude of the problem
- Leadership, need for alternative models (e.g. public/private partnerships)
- Education, “making the business case,” ecological economics
- Lack of contiguity, splintered proponents, need for teamwork
- West Virginia’s cultural ethos and “promotion of denial”

### [A History of Exploitation](#)

West Virginia has a long history of exploitation of both natural and human resources. Many interviewees expressed significant resentment in a national economic structure that has allowed the land to be pillaged at the expense of its communities and for the enrichment of out-of-state interests. The ripple-effects of this pattern are dramatic, Education was undervalued. Industry dependent upon these resources employed poorly educated labor. Manufacturing facilities during the industrial revolution contaminated streams and rivers and spewed pollutants into the air. The work was hard and dangerous.

This history of exploitation has resulted in a dichotomous culture that is proud yet mired in self-pity. One interviewee equated the “state’s psychology” with that of a battered spouse: the people are

dependent on the industries that have taken advantage of them. “Low self worth” in comparison to perceptions of the human condition in other states is prevalent. Another interviewee cautioned that lack of “trust” might undercut seemingly progressive efforts. Dozens of those interviewed apologized for being raised in the coal camps and in other rural sections of the state. This will need to slowly change for West Virginia to have a sustainable future.

One interviewee said that, “people in West Virginia are not comfortable with their material state. They are willing to give away a little too much in order to make a living. West Virginians do subscribe to the throw away culture and do not maximize energy efficiency. West Virginia believes it must give away the natural resource base (e.g., coal and timber) they have in order to get money to come into the state rather than planning how they can get the most benefit from the non-renewable resources they export,”

Finally, there are several major substantive policy issues that must be addressed to bring certain critically important parties into the sustainability process. In the stakeholder workshop, one participant referred to these as “gorillas in the closet.” Mountain Top Removal (MTR) is one such “hot button” issue. Potential participants who have a stake in hot button issues such as MTR may find it difficult to participate in sustainability discussions unless they can see a way for those discussions to help resolve their issues.

### Economic

Three barriers related to the state’s economy seem to be relevant:

First, personal income levels within West Virginia are among the lowest in America. Many believe that the environment is a luxury few can afford when they are struggling to put food on the table and a roof overhead. While we believe that this “zero-sum” mentality is a fallacy, overcoming this belief will require a significant commitment to educating leaders on how economy and environment can and should co-exist. Until there is a shift in thinking at every level of government, a sustainability ethic will be elusive.

Second, many that were interviewed claim that the business climate in West Virginia is unfriendly for recruiting industry of all kinds. We received significant commentary suggesting that it is often less expensive for a company to locate in Pennsylvania, Ohio and Virginia where workers compensation laws and severance taxes do not cut into profitability to the same extent that they do in the Mountain State. The long and oftentimes violent history between labor and industry only adds to the perceptions of a poor business climate.

Third, land ownership patterns may very well be a barrier to sustainability. When land is owned by corporations, decisions are made on an economic basis and not on a community basis. Today a significant proportion of land in West Virginia is in corporate holdings.

### Communication

We were intrigued by comments such as these:

- “Sustainability efforts in West Virginia have been notably disconnected. Results have been poorly communicated beyond the sponsoring entity.”
- “People do not realize that ‘all boats rise’ when the tide goes up by increment. It’s not a bad thing when your neighbor prospers.”

As the vignettes in the prior chapters indicate, sustainability is happening in West Virginia. Yet the successes are not broadly known and, with the notable exception of watershed management efforts, the templates are rarely replicated.

### Technical Sophistication of Regulators

Many interviewees from varying perspectives expressed concern about the relative understandings that the regulators possess vis-à-vis their regulated industries. The farming community believes that few regulators understand farming as either a science or as a culture. Those that regulate the coal industry were criticized by both the industry and those that would like to see them operate under stricter laws.

### Reactive Tendencies of Government

Again and again we heard that WV government is largely reactive to crises of various kinds. Rarely seen is a proactive stance or strategy when dealing with issues related to sustainability – particularly in the environmental area.

In most instances, interviewees highlighted the short-term orientation of government officials – particularly those on the local level where daily face to face contact with constituents was viewed as a lifestyle. One respondent observed, quite accurately, that “sustainability cannot be crisis driven.”

### ***Refining Barriers***

During the stakeholder session, many of these same themes emerged as in the interview process. Taken together, we compiled the list of barriers presented in the text box on page 43.

Many participants lamented a lack of recognition of the scale or magnitude of the problem, not only from a West Virginia perspective but in the broader global context. Several participants cited eye-opening statistics relating to environmental degradation and energy use. One participant derided a prevalent “head in the sand” approach; another expressed frustration with a “business as usual” denial of environmental impacts. Many agreed that there was a lack of “sense of urgency.” Things will

change, claimed one participant “only when we understand that we are all perpetrators and we are all victims.”

However, to a degree not seen in the interview process, at the stakeholder session many participants discussed sustainability as a concept that transcends the state’s borders. One participant, expressing concern for the future of West Virginia’s children and grandchildren, stated that it was time to overcome the state’s traditional “resistance to change” and “look beyond the mountains and hollers to a global perspective.” There was general consensus that West Virginia’s cultural ethos and promotion of denial remained a formidable barrier.

In the category of “perception is often reality,” participants provided examples of “disconnects” in the use of terminology – the false dichotomy between jobs and the environment -- and the resulting skepticism in the motives of politicians and corporate programs. As noted in the discussion of drivers above, making the business case for sustainability was viewed by many as a critical step for moving towards sustainability in West Virginia. One participant called for greater reliance of the tools of “ecological economics”; another called for education of the investment community. Most seemed to agree that more effective education and awareness-raising initiatives relating to sustainability concepts and tools would be desirable.

Without explicit prompting, our interviews had not elicited much in the way of comments on the need for leadership or where it might reside. Yet at the stakeholder session this was seen as a critical concern. Some questioned the ability of state-level elected officials and regulatory agencies to drive a sustainability agenda. Others saw the arrival of a new governor as a great “window of opportunity.” The use of public/private partnerships like “A Vision Shared” was raised as one possible vehicle to leadership on sustainability issues. Those who favored a “bottom-up” approach (decentralized or localized planning) to leadership on sustainability acknowledged that small communities generally lack the necessary resources and infrastructure.

Discussion at the stakeholder session identified other closely-related barriers. Among proponents of environmental protection and sustainability, several observed that there was a lack of contiguity and called for greater collaboration and teamwork. The present “splintered” state of play, it was explained, results in an “inability to initiate legislation.” Members of the business community urged that attention be paid to “non-environmental agendas with environmental impacts,” including tax incentives, workers compensation, and “trial lawyers.” Representatives of community and environmental groups suggested that the time had come to take a closer look at “corporate personhood” and the ability to revoke corporate charters. Finally, several participants suggested that “out of state” interests – those for whom the sustainability of West Virginia was not the paramount concern – be viewed as a significant barrier to change.

### ***Goals for a Sustainable West Virginia***

These drivers and barriers are the issues that must be explored in greater depth with the leadership of West Virginia. Most interviewees acknowledge that sustainability is multi-dimensional. Few

however had enough experience in the sustainability movement to be able to articulate how performance metrics might be bundled.

One common theme was that a performance metric for sustainability can be the level of stakeholder engagement and the diversity of the participants in the ongoing dialogue. Beyond that, few of the respondents offered anything that could be measured concretely. Those that were interviewed spoke largely of improving environmental and economic conditions for future generations.

The analytical team asserts that the capacity for understanding sustainability goals most certainly exists within the state. The issue is largely one of education, discussion and collaboration. We turn to a roadmap for the future in our concluding chapters.



## Chapter 5 – The Road Map to a Sustainable Future

The road to a sustainable West Virginia can not be traveled in a week or a month or even a year. A Sustainable West Virginia involves a new way of thinking about the ever-present connections between economics, environment and community. Decision-makers in a Sustainable West Virginia must be constantly aware of the ripple effects of their decisions on natural resources of the state, on the ability to attract new industries and increase the job base and on social well-being. This awareness must be constant and the attention given to all three dimensions must be vigilant

While previous chapters have referenced the existence of sustainability efforts across the state, we do believe that these efforts – and the creative thinking that spawned them – are largely disconnected and only weakly coordinated beyond the corporate or programmatic structures. By its very definition, Sustainable West Virginia must transcend these boundaries. While the term “Culture Change” seems rather strong given ongoing efforts, the term “Sustainability Transition” seems to fit perfectly. We recommend the use of this phrase as a way of “bundling” the range of environmental protection, economic development, and community-level activities into a coherent state-wide initiative.

### ***Political Will***

November’s elections brought West Virginia a new Governor. Throughout the campaign, Governor-elect Manchin articulated strategies for improving economic growth and actively managing the natural resource base. Again and again he stressed and underscored their community values.

“Sustainability” is a concept that should become a touchstone for the new Administration, an ethic championed by the new Governor.

The overwhelming majority of state government activities can and should link easily to a “*West Virginia Sustainability Doctrine.*” Such a doctrine might take shape in an Executive Order not unlike those already in effect in Oregon, Washington, New Jersey and elsewhere.



The West Virginia Sustainability Doctrine should:

- Institutionalize sustainability as a core value of state government;
- Create a framework for managing sustainability at the senior-most levels of government;
- Encourage interagency sustainability planning through the provision of specially designated sustainability resources;

- Encourage clean coal technologies and other forms of clean energy in a manner that allows West Virginia to become the Strategic Energy Reserve for the United States;
- Expand the supply and develop the demand for environmentally preferable products and services; and,
- Reward excellence in stewardship in all sectors – private, public and community based.

If successes in other states suggest anything, it is that with leadership at the top, there is a motivator for state agencies to come together in ways that traditional stove-pipe structures of government rarely inspire. Executive Orders become the motivator for far-reaching collaboration with specific direction.

### ***Leadership in the Private Sector***

Sustainability can not occur simply by governmental mandate. It is a cultural ethos that must develop momentum in the private sector as well.

Leadership and support in this quadrant appears to be greatest in “West Virginia: A Vision Shared.” Perhaps more than any other group, this institution facilitates communication between and amongst stakeholders engaged in economic development and community-driven issues.

The Implementation Plan for a Vision Shared is described as a “living document.” As such it has already evolved since its creation in December of 2000. Many tasks have already been completed while others are in process. We encourage the continued evolution of a Vision Shared in a manner that brings “Environment” into co-existence with the stated priorities of Intellectual Infrastructure, the New Economy, Results Based Government and Empowering Citizens. We see a 5<sup>th</sup> priority that will inculcate the culture of sustainability for the state: “Maintaining a Healthy Environment.”

Additionally, the research team learned of the genesis of a group of ISO 14001 certified companies in West Virginia that is seeking to motivate their supply chain to develop Environmental Management Systems independent of participation in any formal governmental program. Our observations across America suggest that the “typical” first step for industry to take toward a sustainability ethic is to adopt an EMS. We encourage that group to continue to develop standards for their suppliers and hope that it spreads the sustainability ethos deeper into the West Virginia corporate landscape.

### ***Sustainability at the Community Level***

Community-driven sustainability efforts are likely to be the most powerful means of moving towards the sustainability transition. There are few places in the nation where the ties to the land are as strong as they are in West Virginia. Bringing jobs to rural West Virginia has been the highest priority for government officials at all levels for generations. Yet deeply ingrained in the community fabric is the knowledge that a healthy community depends on a healthy environment. People in rural West Virginia live off the land physically and spiritually.

Counter to barriers that often hamper sustainability in more affluent regions of the country, West Virginia communities are rich in labor and poor in funding. The limiting factors to widespread community-based sustainability are financial and informational.

Without requiring additional resources, we believe that the West Virginia Development Office can make great headway in lowering the financial barrier by adopting a sixth “Area of Special Emphasis” into their Flex-E-Grant program. This sixth area would address Environmental Stewardship” and in doing so would clearly connect community, economics and environment. We believe that the extraordinary support that the Claude Worthington Benedum Foundation has offered over the years is another means lowering financial barriers to sustainability. Their mission already espouses the connections between community development and economic development. Principles that guide their philanthropy include nurturing leadership, encouraging regional planning projects and programs, collaboration, innovation and broadly the advancement of public policy, Sustainable West Virginia would appear to be an agenda easily supported by Benedum.

Information sharing is an easier problem to solve. Efforts are underway to ensure that local jurisdictions acquire access to the internet in at least one public facility. We believe that the West Virginia Association of Counties and the West Virginia Municipal League should work together to highlight ongoing sustainability efforts in their newsletters, websites and conferences. These institutions appear to be the best positioned for getting the message out to the largest... and the smallest... of West Virginia’s communities.

### ***Education and Enlightenment***

*"If you are thinking a year ahead, sow a seed.  
If you are thinking ten years ahead, plant a tree.  
If you are thinking one hundred years ahead, educate the people."  
- Chinese Poet, 500BC*

Sustainability is a concept that clearly means different things to different people. It is imperative that decision-makers in every sector develop a familiarity for the lexicon of sustainability and an appreciation for successful outcomes that have been achieved and lessons learned in efforts that have failed. Stakeholders too need to learn how to articulate their more specific or parochial concerns within a “win-win” sustainability framework.

We encourage the State of West Virginia to utilize the Natural Step framework and other existing tools to present the sustainability lexicon and a range of case analyses to create common understandings among decision-makers and stakeholders.

Diverse private sector organizations have found that The Natural Step can help realize benefits such as cost savings, product innovation, improved morale, and reduced long-term risk. The core of The Natural Step is four “system conditions for sustainability” that provide a coherent platform to address present and future environmental challenges.

Debates ebb and flow concerning the power of grassroots efforts versus the creation of a top down ethos. We say, “Let the debates continue” in a structured format and to clearly articulated and understood endpoints. As many interviewees related, we “pull harder when we pull together.” While we do believe that sustainability must have a home in a specific institution (see below), the responsibility for the Sustainability Transition is a responsibility that all West Virginians share. This cannot happen without a broad-based educational effort.

### ***An Institutional Home for Sustainability***

In its present form, the relatively-new West Virginia Resource Roundtable is a small cadre of West Virginia leaders representing several of the key state government entities in the state including: the Division of Natural Resources, Division of Forestry, Department of Agriculture, The West Virginia Conservation Agency, West Virginia University, and others. It is clear that Roundtable membership must be expanded to include the Department of Environmental Protection in order to effectively address state-wide resource and environmental protection issues.

But the Resource Roundtable has the potential to be so much more – it is the logical home for sustainability policy in West Virginia. Sustainability principles and goals already pervade its charter; it would be a logical next step for this body to embrace a “sustainability” mission, expand its membership, and move forward as the “**Sustainability Roundtable.**”

In order to balance the resources strengths of the Roundtable with the economic development and community-based prongs of its sustainability mission, the Roundtable should consider extending membership to the West Virginia Bureau of Commerce as well as West Virginia Development Office.

We do not believe that the extension of membership should dilute participation. Perhaps the greatest strength of the Roundtable is in its insistence of Senior Executive participation – without substitution. If this basic principle remains in effect, there is no doubt that the Roundtable becomes the perfect institution for resolving tensions between economy, environment and community. The proverbial buck should stop there.

### ***A Multi-Stakeholder Dialogue and Outreach Effort***

The Sustainability Roundtable would maintain a multi-stakeholder dialogue and outreach effort. The initial collaborative dialogue would be a well-defined twelve month process. A cadre of no more than 35 committed individuals should be formally selected to participate in a **Sustainable West Virginia Campaign.**

We recommend that the composition of the group involved in the November, 2004 Sustainability Workshop participant group be refined to create a greater diversity and more appropriate balance in terms of interests and geography in the state. Under ideal circumstances, the participants would be appointed by the Governor with the input of a third party neutral – the Campaign’s facilitator.

We believe that such a dialogue creates connectivity between government, the citizens of West Virginia and other interested parties. As a matter of course, the neutral third party will design agenda(s) for facilitating the dialogue. Similarly, all proceedings should be memorialized in meeting summaries produced for the participants. A website should be developed to ensure a process that is transparent to the interested public throughout the state.

It is anticipated that the dialogue will include debates by expert and issue panelists to educate all participants and stakeholders on key sustainability issues. The participants will be able to evaluate priority issues, receive and consider input from stakeholders and the public, draw conclusions, reach consensus and recommend actions required to address the key issues which may include:

- Incentives for Environmental Stewardship
- Community Values
- Candidate Sustainable Industries
- Tools (e.g. EMS, metrics, etc.)
- Economic Development
- Energy

One task that might be considered within the domain of the Sustainable West Virginia Campaign would be offering input to a “Sustainability Partnership Agreement” between the Roundtable members and US EPA (please see Chapter 6). Beyond an initial one-year dialogue, multi-stakeholder dialogue would continue, perhaps reconvened annually to bring together the full set of interested parties and ensure continuity. The Sustainability Roundtable and its sponsorship of an annual multi-stakeholder dialogue would thereby institutionalize sustainability approaches in West Virginia.

### ***A “Good Neighbor” Program and/or a “Sustainable Community” Pilot***

These are two distinct proposed activities and should be viewed as outcomes or adjuncts to the core stakeholder dialogue (the “Sustainable West Virginia Campaign” described above). We group them together here because the approaches share some common framework principles and both contribute to ongoing community-level decision making.

A sustainable community pilot initiative, as envisioned and supported by WVDEP, will maintain the notion of community participatory planning and increase the likelihood for successful and broad implementation of ideas and commitments identified in the core multi-stakeholder dialogue. A process to reach a “Good Neighbor” agreement for future industrial operations takes a proactive stance to engage the local community and defuse the concerns of stakeholders with respect to industry operations and regulatory oversight.

- The emerging ideal of a “sustainable community” is a dynamic balance between social well-being, economic opportunity, and environmental quality. More than a Community Action Panel, a sustainable community seeks a better quality of life for its citizens while embracing environmental stewardship by minimizing waste, preventing pollution, promoting efficiency, and developing local resources to invigorate the local economy. In a sustainable community, a rich civic life and shared information encourage collaborative decision making through stakeholder engagement.

- “Good Neighbor” agreements specifically promote sustainability by linking environmental and economic concerns. The philosophy common to all Good Neighbor agreements is the industry's and community organization’s mutual acknowledgement of the need to build relationships responsive to both local and industry needs, where “human health, environment, labor resources, and the capital resources and materials within local communities [are] treated in a manner to ensure their continued viability for the long term.” Typically, Good Neighbor agreements arise from contentious permitting and land use disputes that place a company and community at odds. These instruments have been used to best effect to reach agreements with petroleum refineries, chemical processing plants, and mining operations.

### ***Sector-level Assessments***

A natural outgrowth of the Sustainable West Virginia Campaign is the selection of one Sustainable Industry initiative that might be refined, tested and evaluated by the membership of the Resource Roundtable. Such an initiative may span two years or more during which time important baseline data could be collected, policies crafted and sustainability metrics applied over time.

Our analytical team proposes to use the Sustainable West Virginia Campaign to assess sustainability issues tackled in the following industries:

- Coal
- Timber
- Travel and Tourism
- Transportation

These four industries were specifically selected because of their importance to West Virginia’s environment, economy and community structure. Each of the four has the potential to lead the state to sustainability or, if mismanaged, destroy critically important elements of the Mountaineer culture. As related in Chapter 4, trails of sustainability have been blazed in parts of the state.

A multi-regional best practices and issues assessment will yield a highly-focused report to the Sustainable West Virginia Campaign on what is working, what is not working, and what issues are on the front burner for sustainable industry practices. It would also include an initial assessment of factors that would tend to support or impede the success of Sustainable Industry Initiative in West Virginia.

Any and all activities for the Sustainable Industry Initiative must be viewed in a larger context – not only the larger context of WVDEP’s public policies – but also in the context of evolving practices across the specific sector. Our analytical team proposes that external contractors work with WVDEP staff to carefully evaluate the emerging playing field for strategic environmental management and sustainable business practices in each of the four sectors. A final deliverable should be a presentation and report to the Sustainable West Virginia Campaign on the findings.

### ***Sector-based Reporting and Sector Performance Metrics***

This activity builds on the ongoing efforts of WVDEP to create a Sustainable Industry Initiative. EMS is the framework, but other tools must be brought on board for the chosen sector to move from a compliance and liability-driven perspective to strategic environmental management and sustainable business practices.

As has often been stated, “What gets measured gets managed.” And most agree that the future of environmental regulation is not “one size fits all,” but instead tailored sector-specific programs. As part of the Sustainable Industry Initiative, participants in the Sustainable West Virginia Campaign will develop sector-appropriate performance metrics – not only at the regulatory compliance level, but also internal indicators of management systems performance and external “state of the environment” measures.

Once consensus is developed on sector-specific metrics, these metrics will have value beyond the regulator-regulated sector relationship. These metrics will be useful to communicate progress in the sector to other stakeholders. Members of affected communities will be interested in these metrics, perhaps as suggested above, in the context of Good Neighbor agreements or sustainable community activities. To attract additional investment, this information can be presented to the investment community in a variety of ways. Our analytical team recommends that the initial goal should be the preparation of a Sustainable Industry report – by the individual participating companies or through a cumulative statewide report – under the Global Reporting Initiative (GRI) protocol. GRI is in fact moving towards sector-specific reporting; thus, the WVDEP Sustainable Industry activity will have a ready-made showcase.

### ***Environmental Excellence Program Legislation***

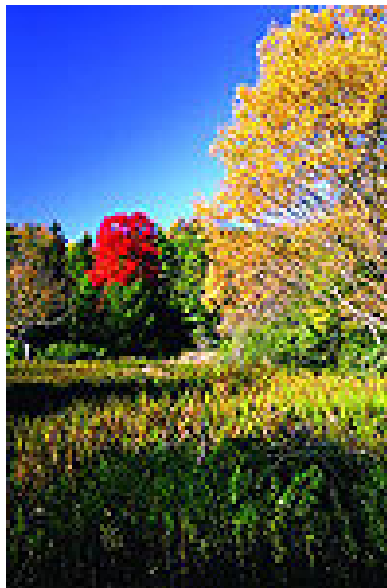
Recent efforts to gain legislation for establishing an Environmental Excellence program should be supported by businesses, communities and government. Initial thinking in this area has connected superior environmental performance and enhanced public involvement with a range of incentives to be provided to participants. Here we see the classic linkages between environment, community and economics.

Across the United States, a factor critical to programmatic success is the development of meaningful incentives for participating entities. Interestingly and counter to this thinking, there have been discussions which have considered imposing an application fee of up to \$3,000 for participant entry – a likely disincentive to involvement. Beyond this factor, the authors have found that discussions around the potential incentives for participants are lacking in both creativity and appeal. We strongly encourage WVDEP to eliminate any and all disincentives and then work with eligible entities to identify more meaningful incentives particularly in the following areas:

1. Priority standing in governmental interactions;
2. Regulatory flexibility (e.g., extended storage time for hazardous wastes from 90 to 180 days);

3. Burden reduction (e.g., through electronic reporting and the elimination of duplicative reporting requirements);
4. Economic relief (through reductions in permitting and other fees);
5. Limited access networking opportunities; and,
6. Access to technical assistance.

Passage of such legislation would serve as a foundation for cross-sector institutionalization of sustainability for the State. To the extent that such legislation could be crafted in such a way as to recognize superior environmental performance beyond the regulatory sense (and in a manner that recognizes the complimentary mandates of the membership of the Resource Roundtable), the culture of sustainability would be strengthened further.



## **Chapter 6 - Conclusion**

To date, perhaps the single greatest benefit of this process has been opening lines of communication between West Virginia's Department of Environmental Protection and its industries, sister agencies, communities and other stakeholders. Unlike conversations of the past where the focus (if not the battleground) was often interpretation of the law, dialogue between parties here was "value-driven" and grounded in a shared ethos. As such, in contrast to relations that were often tense or even estranged prior to this process, there was truly constructive dialogue on the sustainability topic.

Yet dialogue alone is nothing to celebrate. Actions speak louder than words.

In this document we have proposed a road map for changing the ethos to a culture of sustainability – in a manner that is uniquely West Virginia. As stated, the Mountaineer heritage is one that is unlike any other. While models from other states might be useful to shed light on lessons learned, it is clear that any sustainability model used in West Virginia will need to be adapted to the great many idiosyncrasies that exist in this place. This road map itself will need to adapt over time since economics, politics and even the science behind environmental policy is more dynamic than it is static. West Virginia must not be wedded to a pre-determined process.

In Chapter 5, we set out a pathway that included activities that might be undertaken immediately in either concurrent or sequential fashion. Not to be understated is the intention to create a culture in a stepwise fashion, fostering support and commitment person by person and progress bit by bit.

How quickly West Virginia makes progress is a complex question. Clearly the pace of transition is dictated in some measure by the resources committed to sustainability. The state has a golden opportunity to access significant federal resources through the National Environmental Performance Partnership System ("NEPPS").

### ***Relations between West Virginia and US EPA***

Since 1995, US EPA has been seeking to formalize partnerships with the States via NEPPS. To implement the NEPPS, many States develop Performance Partnership Agreements with the regional offices of US EPA. US EPA and State officials collaborate to find common ground by assessing environmental conditions and program needs, goals and strategies for addressing state and regional priorities. These discussions involve decisions on the roles and responsibilities of each partner as well as performance metrics. The NEPPS allows states to go further and opt to receive Federal environmental program grant funds in a combined Performance Partnership Grant (PPG) which allows them to direct resources where they are needed most or try innovative, cross-cutting solutions.<sup>74</sup> Above all else, PPA's and PPG's allow the two institutions to align goals and strategies.

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<sup>74</sup> See <http://www.epa.gov/ocir/nepps/index.htm>.

West Virginia has never developed either a PPA or a PPG with US EPA. In fact, the relationship between US EPA Region III (Philadelphia) and WVDEP has, for the most part, been distant. During this process the team expended significant energy exploring the gap between the two entities. Not surprisingly, we found that their interests were remarkably similar and the gap between the two was largely due to geography more than it was due to any organizational tension.

Nevertheless, West Virginia is certainly not alone in terms of formalizing relations with US EPA via a PPA or a PPG. A great many states have elected not to collaborate with US EPA in this way. Though the reasons vary, most involve some degree of hesitance to adapt their own goals and strategies to “fit” within the regional priorities of US EPA. A culture change within US EPA however, seems to be obviating that concern. Certainly today US EPA is willing to collaborate on partnerships that take a variety of forms and structures. This should come as welcome news to West Virginia as it should to many other states.

As a final conclusion to this Assessment and quite intentionally separated from the prior recommendations, we urge WVDEP and US EPA to consider the development of a “Sustainability Partnership Agreement” or an “SPA.”

### ***The West Virginia SPA***

An SPA represents the culmination of the institutional relations supporting sustainability.

Quite deliberately, our team has provided a stepwise transition to a sustainability ethic:

1. Build the capacity to understand sustainability among legitimate stakeholders;
2. Develop a broadly accepted vision for sustainability;
3. Establish the institutional mechanisms for ensuring the development of public policy that balances the needs of environment, economy and community;
4. Test models of sustainability in select sectors;
5. Identify well-accepted goals as well as performance metrics for evaluating near term, mid term and long term progress; and
6. Adapt the models of sustainability as lessons are learned.

The final step is to use all of the above to formalize goals and strategies with US EPA Region III.

We strongly suggest that WVDEP engage in dialogue with US EPA that results in an SPA that includes all of the elements listed above. The benefits would appear to be substantial:

- Increase communication between US EPA and WVDEP on priorities and other key issues;

- Allow West Virginia to shift resources to address priority needs and fund cross-cutting efforts that are difficult to support with traditional grants;
- Provide a way to support innovative or unique projects;
- Enable workload to be divided more efficiently between Federal and West Virginia agencies;
- Increase focus on environmental results and program effectiveness;
- Improve coordination of compliance and enforcement efforts;
- Foster reduced reporting burden and improved information management; and ,
- Foster public understanding of and engagement in environmental matters.<sup>75</sup>

We find resource allocation issues to be the most compelling – especially in this economic climate. Through the development of a well-structured SPA, WVDEP can gain flexibility with its grant dollars as well as the ability to re-allocate resources to high priority problem areas. The Federal Government is actually making additional resources available<sup>76</sup> to states as they consider the development of sustainability frameworks through their new Sustainability Laboratory (located in US EPA Region III). US EPA appears quite willing to entertain an agreement that is meaningful and innovative even if it does not fit within the historical set of PPA and PPG requirements.

### ***A Final Word***

It has been a blessing and a privilege to be a part of the first steps toward a Sustainable West Virginia. Few states possess such an incredible natural resource base. Those states that have a culture so tied to the land are even fewer in number.

While staving off the tide of poverty and increasing economic development is a high priority for policy makers, we do believe that such an agenda can not only co-exist with environmental stewardship and social equity, it must be directly linked. Only then will the elder generations of West Virginia be able to look into the eyes of their children and know that they will be left with an environment and more importantly a culture that is more robust than the one that exists today.

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<sup>75</sup> Much of this information excerpted from: [http://www.epa.gov/ocir/nepps/pp\\_benefits.htm](http://www.epa.gov/ocir/nepps/pp_benefits.htm).

<sup>76</sup> The reader is invited to visit: <http://www.epa.gov/sustainability/grants.htm> for more information.

## Appendix I – Interview Guide

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### Contact Information

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Salutation		City	
First Name		State	
Last Name		Zip	
Title		Phone	
Organization		Fax	
Street		E-Mail	

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### Questions

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#### Baseline Understandings

1. Do you feel like you understand the term “sustainability?”  
(If the answer is no, go right to the end questions)
2. How do you define “sustainability?”
3. What are the barriers to sustainability in WV?
4. What are the drivers of sustainability in WV?

#### Familiarity with Examples of Sustainability

5. What are current examples of “sustainability practices” in WV?
6. What are your goals for ensuring a more sustainable future for West Virginia?
7. How do you measure sustainability?

#### A Sustainable Future for West Virginia

8. Are you aware of initiatives or examples of sustainability in other states that hold the greatest potential for success if adopted in WV?

9. Who do you view as leading the charge to sustainability in WV?

10. What businesses and/or sectors do you feel hold the greatest potential for shifting the state to a more sustainable future?

11. If you could counsel DEP to undertake a single new sustainability initiative in WV, what would it be?

## Ongoing Contacts

12. Is there anyone out there who we simply must get in contact with?

Name	Title	Organization	Phone	E-mail

## Training Needs

13. What do you think that the regulating community needs to know about sustainability?

14. What do you feel like you need to better understand about sustainable business practices?

15. What do you think that non-regulating communities need to know about sustainability?

I. What programs, initiatives or activities within the State and in other state agencies are designed or otherwise strive for **balance between environmental considerations with economic realities**?

Program Name	Very Brief Description	Responsible Agency/Division	URL (if available)	Key Contact	E-mail and Phone

Additional Comments:

2. Please identify programs, initiatives or activities within the State and in other state agencies **that encourage or even require input from outside interests** (e.g., permit holders, activists, industry representatives, local government, and other “interested parties”) before permits or even policies are developed?

Program Name	Very Brief Description	Responsible Agency/Division	URL (if available)	Key Contact	E-mail and Phone

Additional Comments:

3. Which state activities are designed with a mission or mandate that specifically addresses environmental issues with an eye toward **quality of life in the community?**

Program Name	Very Brief Description	Responsible Agency/Division	URL (if available)	Key Contact	E-mail and Phone

Additional Comments: