

**GREEN HIGHWAYS INITIATIVE:
STREAMLINING THE ENVIRONMENTAL ETHIC**

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Capstone Research Paper
for
Certification in the National Environmental Policy Act

Submitted:
June 6th 2007

Presented to
Duke University



* Duke Environmental Leadership Program *

ABSTRACT

The Green Highways Initiative (GHI) is a voluntary, public/private initiative seeking to embed both environmental streamlining and stewardship throughout the planning, design, construction, and maintenance phases of linear highway projects. Drawing from other '*sustainable development*' initiatives, the GHI program attempts to bridge communication gaps existing between public and private sectors, incorporate market-driven solutions, and reward innovative management techniques while continuing the current streamlining trend of the transportation industry.

The following paper serves as a critique of the GHI program while exploring its potential influence on the NEPA process within the highway industry (namely the GHI program's potential to further the policy goals contained in Section 101 of NEPA – the precursor to the contemporary sustainable development movement).

GREEN HIGHWAYS INITIATIVE: STREAMLINING THE ENVIRONMENTAL ETHIC

"True wisdom consists in not departing from nature and in molding our conduct according to her laws and model." -- Seneca

I. INTRODUCTION

The progenitorial forefather known as sustainable development (SD) has spawned another strategy promoting the environmental ethic: this time the focus is on linear highway projects. Still in its infancy stage, the Green Highways Initiative (GHI) possesses much potential for those interested in not only streamlining the planning process, but also incorporating SD technologies and best management practices throughout the planning, design, construction, and maintenance phases of linear highway projects.

Drawing from other SD-based programs (such as Leadership in Energy and Environmental Design, Performance Track, and Scenic Byways), the voluntary GHI program attempts to bridge communication gaps existing between public and private sectors, incorporate market-driven solutions, and reward innovative management techniques while continuing the current streamlining trend of the transportation industry. In essence, the contemporary SD paradigm, born from the National Environmental Policy Act (NEPA), has arrived, assisting highway projects to “create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans.”¹

However, “nothing quite new is perfect,”² and the fledgling GHI program is no exception. There are a few hurdles for the GHI program to overcome, with the main stumbling block being articulated by the private sector through their apprehension with additional burden. Their concern with added burden stems from the fact that prior to NEPA the Federal Highway Administration (FHWA) was already in the sustainability business, promoting environmental stewardship throughout all phases of its projects. As such, contemporary efforts promoting the environmental ethic in the highway industry are not new, with the private sector perceiving new voluntary programs as costly addendums to an existing process. The questions thus become, what new innovative course towards SD does the GHI program offer and how can it benefit the private sector?

To answer these questions, the following first presents a general overview of how the need for a GHI program came to being while providing a summation of issues discussed at both the GHI Planning Charrette and the first-ever GHI Forum. Lastly, the paper will critique possible outcomes associated with the program in regards to federal actions, and its potential influence on the NEPA process within the highway industry.

II. STREAMLINING THE ENVIRONMENTAL ETHIC

Before passage of NEPA and the resulting SD movement (popularized by the Brundtland Commission³), FHWA was already broadening “its mission from that of providing highways to meet traffic demand to one that [also reflected] the cultural, economic, environmental, and social needs of U.S. cities and sensitive rural areas.”⁴ The reason for FHWA’s early involvement with environmental stewardship is soon after enactment of the Federal-Aid Highway Act of 1956, public concerns pushed FHWA to shift its existing *modus operandi* away from “how to build interstate highways on time” towards “building highways on time while minimizing or eliminating damage to the environment.”⁴

After signed into law in 1970, a new specter called NEPA loomed overhead, provoking fears of even more bureaucratic red tape within the transportation industry. The advent of NEPA prompted suspicion of a more strenuous review process, increasing both delay and cost, potentially bringing vital highway projects to a standstill.⁴ These concerns came to a litigious fruition.

On December 21, 2005, the House Task Force on Updating NEPA released its draft report stating that “a number of witnesses expressed the thought that the threat of litigation has had a profound effect on the manner in which Federal agencies move through the NEPA process.”⁵ In other words, the threat of litigation forced agencies to “spend as much as necessary to create ‘bullet proof’ documents.”⁵ For example, during the 1980s, an environmental impact statement (EIS) for a mining project cost approximately \$250,000 to \$300,000. In 2005, the same EIS could cost \$7 million to \$8 million.⁵ The Task Force concluded that the increased costs are “associated with the amount of information required to address potential litigation.”⁵

Due to increases in both cost and time to move through the NEPA process, efforts were later made to streamline the planning process while upholding the ‘hard-look’ doctrine of the Act. In 1987, FHWA and the Urban Mass Transportation Administration (now the Federal Transit Administration or FTA) released their joint NEPA regulation, announcing their intentions to “streamline environmental requirements and eliminate some of the red tape and time consuming legal processes involved in NEPA compliance.”⁴ The streamlining trend of the transportation industry had begun and continued during the 1990’s to become a prominent feature of the 21st Century:

- The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA),
- The Transportation Equity Act for the 21st Century (TEA-21, 1998),
- Executive Order 13274 (Environmental Stewardship and Transportation Infrastructure Project Reviews, 2002),
- The Safe, Accountable, Flexible and Efficient Transportation Equity Act of 2003 (SAFETEA), and
- The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU, 2005).

However, some charge that the current streamlining trend within the NEPA process is “more akin to steamrolling.”⁶ The assertion is that streamlining limits sufficient time for

public review, thus circumventing the public participation requirements of NEPA. Meanwhile, as the ‘steamrolling’ charge further asserts, streamlining also underscores NEPA’s alternatives analysis provision by fast-tracking an agency’s proposed action without taking the proverbial ‘hard-look’ at alternative actions.⁷

With the mounting view that streamlining undermines both public participation and alternatives analysis in the NEPA process, many are scrutinizing the trend as a direct assault on the ‘Magna Carta’ of environmental law. Paradoxically, if the goal is to streamline the NEPA process, it seems that opposition groups are poised to engage new legal battles if the perceived assault on NEPA continues, thus rendering streamlining a moot point. The question then becomes, can the environmental ethic coexist with streamlining? The Green Highways Initiative attempts to do just that.

III. DESIGNING A BLUEPRINT FOR SUCCESS⁸

Spearheaded by FHWA and the Environmental Protection Agency (EPA), Region III, the first Mid-Atlantic Green Highways Initiative Planning Charrette was held in Philadelphia on June 2, 2005. The meeting was an invitation-only affair attended by approximately eighty leaders and senior-level executives in industry, trade associations, and non-governmental organizations, along with state and federal transportation and resource agencies. “The meeting objectives were to develop a leadership blueprint for GHI, share innovative and successful efforts, identify the key elements of sustainable transportation, build a set of key elements for Green Highways that could form the basis for award and certification, and identify next steps.”

Future programmatic approaches set forth from the Charrette embedded the SD paradigm as the guiding principle by assuring that “the basic access needs of individuals [are] met safely and in a manner consistent with human and ecosystem health, and with equity within and between generations.” Adhering to the tenets of SD, participants of the Charrette detailed a voluntary program that would provide a balanced approach to economic, ecological, and equitable solutions in the planning, designing, construction, and maintenance phases of liner highway projects.

Economic Vision

Attending to the economic branch of SD, participants of the Charrette stressed “affordability, efficiency, and multi-modal transport choices” (including transit vehicles, bikes, and pedestrian walk ways) to support the economic goals of the GHI program. The economic framework of the initiative was expressed through a vision that:

- Meets, if not exceeds, all major time commitments with consequential cost effectiveness.
- Supports and/or stimulates sustainable economic markets, locally and perhaps, globally.

- Supports and enables cost-effective ‘win-win’ solutions through greater collaboration, integrated planning, and the achievement of multi-beneficial results.

Ecological Vision

The ecological tenet of SD was outlined in a GHI program that:

- Limits emissions and waste within the planet's ability to absorb them, minimizes consumption of non-renewable resources, reuses and recycles its components, and minimizes the use of land and the production of noise.
- Goes ‘beyond compliance’ in applying environmental stewardship practices that provide for environmental improvements and measurable results.

Equity Vision

Invitees of the GHI Charrette also laid out a programmatic vision for addressing societal concerns by framing an approach that:

- Provides for safe and efficient transportation of goods and people.
- Provides for positive contributions to affected communities.

To further the equity vision, participants recommended the utilization of both environmental justice and context-sensitive solutions to engage both decision-makers and community members. Environmental justice was included in the discussion to “serve as a principle... to ensure that communities of color or low-income communities are not disproportionately affected by the impacts of a highway project.” Meanwhile, participants also noted that a context-sensitive approach might be needed to provide a collaborative, interdisciplinary approach, involving all stakeholders to develop facilities that fit the physical setting of each community, while preserving scenic, aesthetic, historic, and environmental resources.

Core Concepts for Success

In order to create an efficiently streamlined program founded on an environmental ethic, participants and keynote speakers looked to three main concepts to achieve this synthesis: innovation; market-driven approaches; and partnerships.

‘Innovation,’ as one of the cornerstone pieces for the success of a GHI program, was repeated throughout the Planning Charrette. Most notably, innovation was consequential to “finding new ways to finance projects and [improve] efficiency through the sharing of best practices and information, and to achieve real results and get past bureaucratic inaction.” It was emphasized that innovative thinking would stimulate new research and training programs (resulting through the application of adaptive management techniques), while incorporating the use of “design criteria and performance measures that are clear, sound, transparent, and replicable...”

Although no detailed discussion regarding the GHI program's utilization of 'market-driven approaches' is currently available for review, it can be assumed that the intention of its use reflects a paradigm shift currently taking place in the transportation industry. The prevailing mode of thinking in the transportation industry is typically grounded in "a linear, reductionist, mechanistic, engineering-oriented framework."⁹ The tendency of this worldview is to increase the speed and capacity of highways when travel conditions warrant such changes. However, since NEPA and the subsequent SD movement, it has become more apparent that it is no longer possible to solely rely on a supply-sided strategy to "build your way out of the problem, which is like trying to cure obesity by loosening your belt."⁹

With the emerging economic paradigm in the transportation industry, efforts are being made to integrate the traditional supply-sided strategy with a demand-sided strategy to allow both 'supply' and 'demand' within the 'economic gene pool' to decide what is best for any given region. The paradigm borrows from the ecological functions of biodiversity by asserting that as growth in vehicular ownership increases (as well as air pollution in urban centers), the availability of 'modal diversity' in the 'economic gene pool' will allow changes in future demands to preserve the vital role of mobility in any given economic region. Thus, natural-systems thinking "is at the heart of the paradigm shift occurring in transportation and community planning and system management, and in the reinvention of public sector institutions."⁹ By promoting the emerging economic paradigm and planning for future demands, the GHI program may advance the environmental ethic by making economic decisions that are founded on and molded by the laws of nature – the unspoken, philosophical backbone of both NEPA and the SD movement.

Lastly, it was acknowledged by participants of the Charrette that a successful GHI program will be heavily determined by the quality of its 'partnerships.' It was noted that innovation and market-driven approaches would not be possible without "collaboration among stakeholders, early in the process, as a means to allow for innovative financing, research and training..." It was also stated, "Partnerships, including public-private partnerships, are extremely important as the challenges facing society are more diffuse and defy traditional top-down, command-and-control approaches." Collaboration, as the preferred problem-solving approach of the GHI program, would "improve the predictability of highway projects for both agencies and the private sector; all parties would have a stronger understanding of regulations and timelines. This could smooth out the process and improve efficiency, particularly through reducing litigation."

Challenges

After addressing key elements for designating a Green Highway, participants of the Charrette next discussed uncertainties and future challenges that the GHI program could possibly face. The foremost challenge discussed was the issue of getting the GHI program off the ground. Many suggested that a strong business message is needed to pull in potential users of the program, with a clear understanding of "who is involved, why they should participate, and what benefits are derived..." Although "clear articulation of the business case" to excite involvement in a GHI program was discussed, "others cautioned against over-promising results or underestimating the amount of time, effort,

and money needed to create collaboration, build relationships, and implement incentives...Some did not see the added value beyond what regulatory agencies are already doing in highway projects. Others noted that limited resources may make it more difficult to make the case for green highways.”

“Another set of reservations focused on how to involve the use of recycled and recyclable materials” in the GHI program. Questions were posed regarding “how encouragement of the use of these materials [would] be involved in the program.” If recycled and recyclable materials were to be used, some participants noted that “steps should be taken to ensure they are used in a proper manner and as much material as possible be recycled.” Other participants believed that “state DOTs and some materials engineers would need to be educated and informed about the best use of such materials, as some opposition [to their use] currently exists.” Fundamentally, “issues of quality, environmental impact, and cost” would need to be addressed regarding the role of recycled and recyclable materials in a successful GHI program.

Lastly, the use of a certification program and/or a rating system to reward innovative practices also raised concerns. Some participants suggested that projects be “celebrated or championed without formal certification.” Others noted that discouragement from participating in GHI could result because of “a ratings system that compares projects or companies with one another...”

After the GHI Charrette concluded, Donald Welsh (Regional Administrator of EPA, Region III) wrote a GHI endorsement letter to John Horsley (Executive Director AASHTO) in which Mr. Welsh noted the EPA’s intention to drop the certification program:

“In the early stages of this effort, we were considering the development of a certification program, with the benefits of consistency, transparency and regulatory flexibility – similar to that of EPA’s Performance Track Program for industrial facilities. However, participants at the Green Highways Executive Charrette, held in Philadelphia earlier this year, brought to our attention extreme sensitivities of the transportation community towards the possibility of certification programs becoming mandatory, regulatory requirements. Therefore in order to take advantage of the groundswell of positive energy generated around this effort as a way to strengthen our working relationship and partnering opportunities, we’ve dropped the certification component and are highlighting ways through which to team up on joint interests.”

IV. GREEN HIGHWAYS FORUM¹⁰

With a draft framework in place and a few unresolved issues on the table, the first-ever Green Highways Initiative Forum began November 8, 2005, in College Park, Maryland. Again, the GHI Forum brought together senior-level executives, non-governmental organizations, along with state and federal transportation and resource agencies. The main function of the Forum was to reflect on topics discussed during the Charrette and define a ‘green highway’ and initiate a new recognition program.

Concluding the Forum, no definition or structured program emerged. However, “many top federal and state agency leaders committed staff and resources to support the program.” For example, Steve Johnson (EPA Administrator) committed “the agency to help drive the program nationwide and challenged attendees to launch a movement.” Meanwhile, Cindy Burbank (FHWA, Associate Administrator of the Office of Planning, Environment and Realty) pledged \$500,000 to the GHI effort.

Other notable successes to come out of the GHI Forum were the creation of a Steering Committee and the EPA’s commitment to finance a ‘Green Highways Clearinghouse.’ The Steering Committee was given the duty of compiling “the comments from the Forum and develop a roadmap.” Meanwhile, the EPA’s Clearinghouse would centralize the GHI program on the Internet, “where partners can connect and share information, case studies, and best management practices.”

Despite the successes generated at the Forum, “conflicting ideas were expressed.” Although it was previously agreed not to pursue a certification program, some participants continued to propose its use, citing the Leadership in Energy and Environmental Design program (LEED) as an exemplary use of a certification program. However, several participants “resisted the development of a national standard because of regional and local variances.” More poignantly, the reason for not backing the use of a certification program was that some participants did not want to endure another “roadblock in the process.” The main hurdle noted by certification opponents was that “the awarding of a ‘*green highway*’ designation implies that additional paperwork and a formal submittal and review process will be needed to determine if a project qualifies.” Instead, opponents wished “to weave ‘green’ principles throughout existing steps such as NEPA and context-sensitive solutions.”

By the Forum’s end, it was acknowledged that more effort was still needed “to determine those attributes that contribute to a green highway [and] also how to structure a formal recognition program that allows for regional flexibility and does not add undue burden to the current process.” Today, the role of a GHI program with promoting the environmental ethic, while continuing the streamlining trend in the transportation industry, is still a work in progress.¹¹

V. DISCUSSION

The private sector’s apprehension with added burden discussed during both the GHI Charrette and Forum is not a new concern with voluntary programs. For example, in 1995, the Clinton administration launched Project XL (*Excellence and Leadership*), another voluntary program designed to be “collaborative, bringing together representatives from industry; federal, state, and local government; and environmental organizations.”¹² However, thirty firms (some with exemplary environmental track records) withdrew after entering the program because of the “EPA’s unwillingness or inability to live by the program’s promises of flexibility, collaboration, and fast-track multi-media permitting.”¹² These problems grew out of both the EPA’s difficulty with

providing field support and prevailing “uncertainties about the legally binding nature of specific facility-level arrangements.”¹²

The main catalyst for the private sector’s discouragement from participating in Project XL was in effect a problem inherent with any other form of collective voluntary action. Economists make a persuasive case against voluntary initiatives when they assert that voluntary stewardship will not work when laggards reap the rewards of other’s hard work.¹³ The problem of “laggard-ship” in voluntary collective action is at the heart of the resistance towards such programs, which gives punctilious firms the sense that providing innovation to the process is nothing more than undue burden with no real benefits. “From a competitive standpoint, it makes little sense for [private firms] to voluntarily take on the added expenses of pollution abatement or production line modification.”¹³ Economists are thus asserting that the greening of business through voluntary action will not take root until “the problem of acting progressively when others do not - the classic problem of collective action - is solved for the firm.”¹³

Given the private sector’s experiences with voluntary programs and the federal government’s lack of resources to fulfill promises of regulatory flexibility, it seems that disagreement between GHI participants over how to recognize innovation is not just over defining a ‘green highway’ or how to structure a rewards program. In essence, there is an obstacle to overcome regarding how to provide effective collaboration and regulatory flexibility in ways that are inline with streamlining, without weighing down the bottom line of the private sector. As originally asked, what new course towards SD does the GHI program have to offer and why should private firms participate?

NEPA: A Slight Return

Lynton Caldwell asserts that the EIS requirement of NEPA’s Section 102 alone has proven “insufficient to achieve the intent declared in NEPA” and that the CEQ has “lacked the active presidential and congressional support needed to play its intended role.”¹⁴ Additionally, the relevance of NEPA has been “weakened by ambiguous interpretations in the federal courts and outright denial by some executive agencies.”¹⁴

Caldwell further affirms, “The goals and principles declared in Section 101 have been treated as noble rhetoric having little practical significance.”¹⁴ After reading the “noble rhetoric” of Section 101, it becomes clear that NEPA was meant to be more than a procedural process: it was also to be a conduit for addressing the social-economic-ecological relationship through community involvement and education.

Furthermore, when asked how it measures the effectiveness of programs designed to reduce and eliminate barriers to public involvement, FHWA has responded that it “does not have a formal mechanism to measure the effectiveness” of such programs.¹⁵ FHWA acknowledges, “while [it does] measure the effectiveness of public involvement processes in general through the use of Community Satisfaction Surveys, [it does] not differentiate the results of different racial, cultural or income groups.”¹⁶ In short, existing monitoring techniques do not provide detailed information on how the NEPA process is being carried out in environmental justice communities.¹⁷

Additionally, the U.S. Commission on Civil Rights noted, "Meaningful participation of affected communities is one of the cornerstones of environmental justice and should be used to prevent conflicts before the need for alternative dispute resolution (ADR) or litigation arises."¹⁸ Given the fact that local governments and community members know their communities better than the federal government, the utility of administering social impacts analysis through NEPA is best served through local community participation, not circumvention. Thus, the main contribution the GHI program has to offer is that it can implement the noble rhetoric found in Section 101 by mediating the needs of local communities and the private sector, resulting in effective framings of site-specific issues, concerns, and solutions.

GHI Tools

There are two main tools available for the GHI program to use (as discussed during the Charrette and Forum) that would not only help fulfill the noble rhetoric Section 101, but also help achieve the program's goal of streamlining the environmental ethic: Environmental Management Systems (EMS) and Context-Sensitive Solutions (CSS).

The EMS provision, which became a federal agency requirement on April 21, 2000 through Executive Order 13148 (*Greening the Government through Leadership in Environmental Management*) is a tool that applies an adaptive management approach to certain actions subject to NEPA review. The EPA defines EMS as "a continual cycle of planning, implementing, reviewing and improving the processes and actions that an organization undertakes to meet its business and environmental goals."¹⁹ As such, EMS has proven to:

- Improve environmental performance.
- Enhance compliance.
- Prevent pollution and conserve resources.
- Reduce/mitigate risks.
- Attract new customers and markets.
- Increase efficiency.
- Reduce costs.
- Enhance employee morale and possibly enhance recruitment of new employees.
- Enhance image with public, regulators, lenders, investors.
- Achieve/improve employee awareness of environmental issues and responsibilities.¹⁹

However, there are some upfront costs often associated with EMS, including:

- An investment of internal resources, including staff/employee time.
- Costs for training of personnel.
- Costs associated with hiring consulting assistance, if needed.
- Costs for technical resources to analyze environmental impacts and improvement options.¹⁹

EMS Costs and Benefits¹⁹

Potential Costs	Potential Benefits
<p>Internal</p> <ul style="list-style-type: none"> • Staff (manager) time • Other employee time <p>(Note: Internal labor costs represent the bulk of the EMS resources expended by most organizations)</p> <p>External</p> <ul style="list-style-type: none"> • Potential consulting assistance • Outside training of personnel 	<ul style="list-style-type: none"> • Improved environmental performance • Enhanced compliance • Pollution prevention • Resource conservation • New customers/markets • Increased efficiency/reduced costs • Enhanced employee morale • Enhanced image with public, regulators, lenders, investors • Employee awareness of environmental issues and responsibilities

By embedding EMS within the NEPA process, a synthesis is created “that can encourage a robust analysis when the EMS information is extensive, current, and available for use [during the planning phase]. In addition, such integration might more effectively prevent environmental degradation, promote sustainability, and further the policy goals contained in Section 101 of NEPA.”²⁰ For example, “mitigation measures analyzed during the NEPA process could be integrated into the EMS objectives and targets [during the planning phase]. The monitoring and adjusting procedures [during construction] associated with the checking and corrective action elements of the EMS could then become the basis for adaptive management adjustments to meet the EMS objectives and targets [outlined during the NEPA process].”²⁰

As such, synthesizing EMS with NEPA can be a tool that not only benefits the natural environment and streamlines the process, but also enhances the bottom line for the private sector. EMS has proven to be a viable market-driven technique “to improve efficiency, reducing operational costs by using fewer resources [i.e. recycled materials], optimizing the use of resources that are needed.”²¹ Additionally, the function of EMS in the NEPA process gives the private sector, through collaboration with state DOTs, “the means to measure progress against a baseline and the incentive to make improvements. This results-oriented approach is usually more effective than the process-oriented oversight by outside groups that often want to add extra steps that may not be cost-effective.”²¹ Although these types of efforts often require upfront investment in time, staff, and commitment, an EMS program contemplated during the environmental review process can result in cost savings over time while mitigating potential environmental impacts.²¹

The other existing tool to help realize the original intent of NEPA and GHI's programmatic goals is Context-Sensitive Solutions, or CSS. Via CSS, GHI participants would, again, come one step closer to streamlining the environmental ethic.

As defined by FHWA, "CSS is a collaborative, interdisciplinary approach that involves all stakeholders to develop a transportation facility that fits its physical setting and preserves scenic, aesthetic, historic, and environmental resources, while maintaining safety and mobility. CSS is an approach that considers the total context within which a transportation improvement project will exist."²² Through CSS, collaborative efforts can "improve existing facilities; incorporate biking, walking, and transit improvements; and expand operational and infrastructure capacity, while retaining, even enhancing, the fabric and character of the surrounding environment."²²

As such, CSS has proven to:

- Streamline the NEPA process.
- Shorten the project development process by gaining consensus early, and minimizing litigation and redesign, and expediting permit approvals.
- Save money and time.
- Prioritize and allocate scarce transportation funds in a cost-effective way, at a time when needs far exceed resources.²³

Through the utilization of CSS, not only are the economic and ecological visions set forth from the GHI Charrette addressed, but also the equity vision through public involvement, ensuring that low-income communities are not disproportionately affected by the impacts of a highway project. CSS offers the tools for effective public involvement and GHI is well positioned to effectively implement its use at the local level.

Furthermore, embedding EMS concepts within the NEPA process would allow the GHI program to realize its goals by improving the quality and effectiveness of the environmental review process while maintaining the current streamlining trend in the highway industry. In effect, EMS in a GHI program would offer private firms the means to obtain regulatory flexibility, protect their bottom line, while furthering the noble rhetoric of Section 101.

Closing Remarks

The courts may have mandated that NEPA's 'teeth' are found in Section 102 of the Act, but the more qualitative goals set forth in Section 101 are increasingly looked to in efforts that "the Nation may:

1. Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;
2. Assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings;
3. Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;

4. Preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity and variety of individual choice;
5. Achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; and
6. Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.”²⁴

The road towards streamlining the environmental ethic has been rocky and is, in essence, an exercise over how to provide effective collaboration and regulatory flexibility in ways that are inline with streamlining, without weighing down the bottom line of the private sector.

Through the use of CSS and focus on adaptive management techniques (EMS) at the local level, the GHI program can more effectively achieve its goals of bridging communication gaps between public and private sectors, incorporating market-driven solutions, while continuing the current streamlining trend of the transportation industry.

Cindy Burbank writes that “One of the lessons to emerge from years of experience with NEPA is that highway builders must think beyond the pavement.”⁴ As Federal Highway Administrator Mary E. Peters says, "A transportation facility is an integral part of the community's fabric, and it can help define the character of the community or it can destroy it." ⁴ In the case of GHI, thinking beyond the pavement is not adding redundancy to an existing process or merely creating a program that rewards innovative techniques. Thinking beyond the pavement for a successful GHI program is bringing innovative management techniques to the local level, ultimately promoting the environmental ethic at the local level.

Once communities and private firms realize the long-term benefits of collaborating at the local-level, a central premise of both NEPA and SD begins to take shape: that local communities take greater responsibility for their own well-being (relying less upon bureaucratic governmental structures and more upon direct citizen involvement). Furthermore, private firms will obtain the regulatory flexibility they desire, since the fast-tracking of multi-media permitting would come from site specific local analysis via collaboration. Ultimately, streamlining would become inherent in the process since the threat of litigation diminishes when local stakeholders are involved in a meaningful planning process.

NOTES AND SELECTED REFERENCES

¹ 42 U.S.C § 4331(a) (1970)

² Quote by Marcus Tullius Cicero (106 BC - 43 BC) *Roman author, orator, & politician*

³ It is argued that NEPA is the innovator behind the contemporary SD movement. Nonetheless, it was the Brundtland Commission's report (Our Common Future) that brought SD to the forefront of national and international environmental advocacy. For more information see:

World Commission on Environment and Development (1987). *Our common future*. New York: Oxford University Press.

⁴ Burbank, C. (2003). A natural balance: During decades of controversy, FHWA and its State and local partners consistently included environmental stewardship as a goal of transportation projects. *Public Roads*, July-August, 2003 Vol. 67. No. 1

⁵ House Committee on Resources, United States House of Representatives (2005). Task Force on Improving the National Environmental Policy Act and Task Force on Updating the National Environmental Policy Act: *Initial Findings and Draft Recommendations*.

⁶ Natural Resources Defense Council (2003). *Stewardship, Not Steamrolling: Improving Transportation Project Delivery*. <<http://www.nrdc.org/air/transportation/tea3one.asp>> Last accessed 1/6/06

⁷ For more on opposing views of streamlining the NEPA process, see:

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⁸ All Info for this section (Designing a Blueprint for Success) was gathered from the Green Highways website, unless otherwise noted:
<http://www.greenhighways.org/Green%20Highways/charette_cc.html> Last accessed 10/25/06

⁹ Replogle, M. (1999) *Integrated Transport Strategies for Sustainable Development*. Travel Model Improvement Program, Arlington TX. <<http://tmip.fhwa.dot.gov/clearinghouse/docs/itss>> Last accessed 10/25/06.

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¹¹ A Green Highways Partnership Strategic Retreat was held March 1-3, 2006, in St. Michaels, Maryland. This meeting was small problem solving affair attended by approximately 40 professionals. The results of that retreat were not made public at the time this paper was written and are not included.

¹² Press, D. and Mazmanian, D. (2000) *Understanding the transition to a sustainable economy*, found in Vig, N. and Kraft, M. editors *Environmental Policy: New Directions for the Twenty-First Century*, 4th edition. CQ press, Washington DC p. 268

¹³ *Id.*, p. 270

¹⁴ Caldwell, L. (1998) *Beyond NEPA; Future significance of the National Policy Act*. The Harvard Law Review Vol. 22 No. 1 p. 203-239.

¹⁵ U.S. Commission on Civil Rights (2003). *Not in My Backyard: Executive Order 12898 and Title VI as Tools for Achieving Environmental Justice*. P. 147

¹⁶ *Id.*, p.148

¹⁷ *Id.*, p.113-115

¹⁸ *Id.*, p.105

¹⁹ United States Environmental Protection Agency (2006). *Environmental Management Systems (EMS)*. <<http://www.epa.gov/ems/info/costben.htm>> Last accessed 10/23/06

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