

**BUILDING COALITIONS AND LEADERS IN SUSTAINABILITY:
NYSDOT'S ACTIONS TO INTERWEAVE SUSTAINABILITY AND
ASSET MANAGEMENT**

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ABSTRACT

The New York State Department of Transportation (NYSDOT) understands transportation is essential to a vibrant economy and a sustainable society. Unfortunately, in today's fiscally constrained times, it is clear funding will not meet all transportation infrastructure needs. Therefore, it is crucial for transportation agencies to think critically about how they invest their limited resources in a way that fulfills the social (community), economic and environmental needs of the present without compromising the needs and opportunities of future generations.

The condition of New York's transportation infrastructure and the uncertainty of funding for it demands a new way of thinking at all levels. If we don't change course, we risk the long-term reliability of our transportation infrastructure and its ability to support travel, commerce and economic growth. In response, NYSDOT has changed the way it is doing business by institutionalizing an asset management framework that incorporates the Sustainability "Triple Bottom Line" of economic competitiveness, social equity and environmental stewardship in its investment decisions.

Investing in transportation is one of the fastest and most effective ways to create and sustain jobs and improve our citizen's quality of life. The challenge is to make decisions on how to balance the use of limited transportation funding to support economic competitiveness and the needs of citizens while protecting and enhancing the environment. This paper addresses how NYSDOT is incorporating sustainability into its organizational and functional structures as well as its asset management and capital program processes, and how these efforts are helping NYSDOT to further integrate sustainability into its culture.

INTRODUCTION

The New York State Department of Transportation (NYSDOT) understands transportation is essential to a vibrant economy and a sustainable society. Unfortunately, in today’s fiscally constrained times, it is clear funding will not meet all transportation infrastructure needs. Therefore, it is crucial for transportation agencies to think critically about how they invest their limited resources in a way that fulfills the social (community), economic and environmental needs of the present without compromising the needs and opportunities of future generations.

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SUSTAINABILITY AS AN OVERARCHING PRINCIPLE

There are many different perspectives on what sustainability means, ranging from the environmental aspects of recycling, reusing, energy efficiency, low-emission transportation choices, protecting the environment, reducing emissions, carbon budgets, clean water, clean air, and climate change; to the more social aspects of making communities more livable; to supporting the economy; to an overall goal of saving the planet – now and for future generations. Sustainability definitions, visions, goals, objectives, strategies, outputs, and outcomes are also varied, and include different disciplines, such as engineering, landscape architect, environmental science, climatology, operations, policy-makers and planners and so on. With so many perspectives and understandings, finding the “perfect” definition and the “right” balance of economy, environment and social equity is a complex task.

At NYSDOT, we have come to understand sustainability as an overarching principle. As shown in the below diagram, sustainability is not a stand-alone program or new initiative. Indeed, it is a part of what we have been doing, and as NYSDOT’s efforts evolve, sustainability becomes the lens used to guide and develop our decision making and actions.



Sustainability encompasses a number of existing programs and initiatives, such as our GreenLITES program, smart growth, context sensitive solutions, complete streets, asset management, preservation strategy, safe routes to school, travel demand management, climate change and energy efficiency programs. These and other programs support the triple bottom line of economic competitiveness, social equity and environmental stewardship.

Yet none of these programs, by itself, is “sustainability.” Rather, the over-arching principle of sustainability provides a holistic lens used to guide our actions. This holistic view helps transportation agencies look strategically and critically at investment choices as well as a means to better inform those involved in the decision-making process.

NYSDOT SUSTAINABILITY VISION AND JOURNEY

As highlighted and discussed in Nelson, et al. (2011), NYSDOT’s sustainability vision is to “exemplify how transportation supports a sustainable society”. The vision is deliberately articulated in terms of the agency’s role in society rather than just focusing on the transportation system or transportation projects. As noted by Aronson (1997), instead of focusing on the individual pieces, systems thinking involves a broader view, looking at larger and larger numbers of interactions. A more holistic approach to transportation decisions considers projects in the context of the larger transportation system, community network and landscape. By framing the agency’s sustainability thinking in this manner, the agency’s decision-making has moved towards a more holistic or systems approach by considering how agency decisions affect the greater society. NYSDOT’s sustainability mission takes this idea to the next level: “To fully integrate sustainability into the Department’s decisions and practices in planning, designing, constructing, maintaining and operating New York State’s transportation system. NYSDOT will also model and advance sustainability in managing its internal resources.”

NYSDOT’s environmental ethic evolved over the last 15 years (McVoy, et al. 2000; Nelson, et al. 2002). NYSDOT has received recognition for its proactive environmental stewardship efforts, including multiple American Association of State Highway and Transportation Officials (AASHTO) and Federal Highway Administration (FHWA) national awards, thus gaining endorsement for delivery of environmentally sound transportation services.

McVoy, et al. 2010 documents NYSDOT’s sustainability journey. As noted, NYSDOT has built on successful efforts such as its Environmental Initiative in the late 1990’s that formalized our environmental ethic; Context Sensitive Solutions, an effort to balance environmental, scenic, aesthetic, cultural, natural resources, community and transportation needs; Green and Blue Highways Program that looks for low cost or no-cost maintenance and operations solutions that improve the environment; Smart Growth planning efforts and numerous others.

NYSDOT’s formal sustainability efforts were launched in 2007 with the GreenLITES program¹. GreenLITES began as a way to focus attention on and measure the sustainable aspects of each of our design projects. As NYSDOT’s efforts evolved, GreenLITES expanded into a suite of tools to recognize and evaluate sustainability in other aspects of our work, including operations,

¹ <https://www.dot.ny.gov/programs/greenlites>

planning and setting overall goals and direction for our Regional offices. These efforts were foundational, and NYSDOT continues to learn from its experience and to develop tools for measuring the broader impacts of our actions through a public benefits framework. McVoy, et al. (2010) describes NYSDOT's GreenLITES program evolution from its environmentally based beginnings to a more comprehensive approach in support of a more sustainable society. The paper covers program vision, goals, benefits, management, and evolving next steps.

As NYSDOT's approach to sustainability matured, it became evident that a more strategic approach is essential to truly integrate sustainability principles into all that we do. In 2011, NYSDOT purposefully incorporated sustainability principles into its asset management, comprehensive program update and capital investments decisions. It is this part of the journey, building sustainability – from a systems perspective – directly into our agency level funding and programming decisions - that is now allowing NYSDOT to integrate sustainability more deeply into the organization and helping us to build sustainability more broadly into our agency's culture.

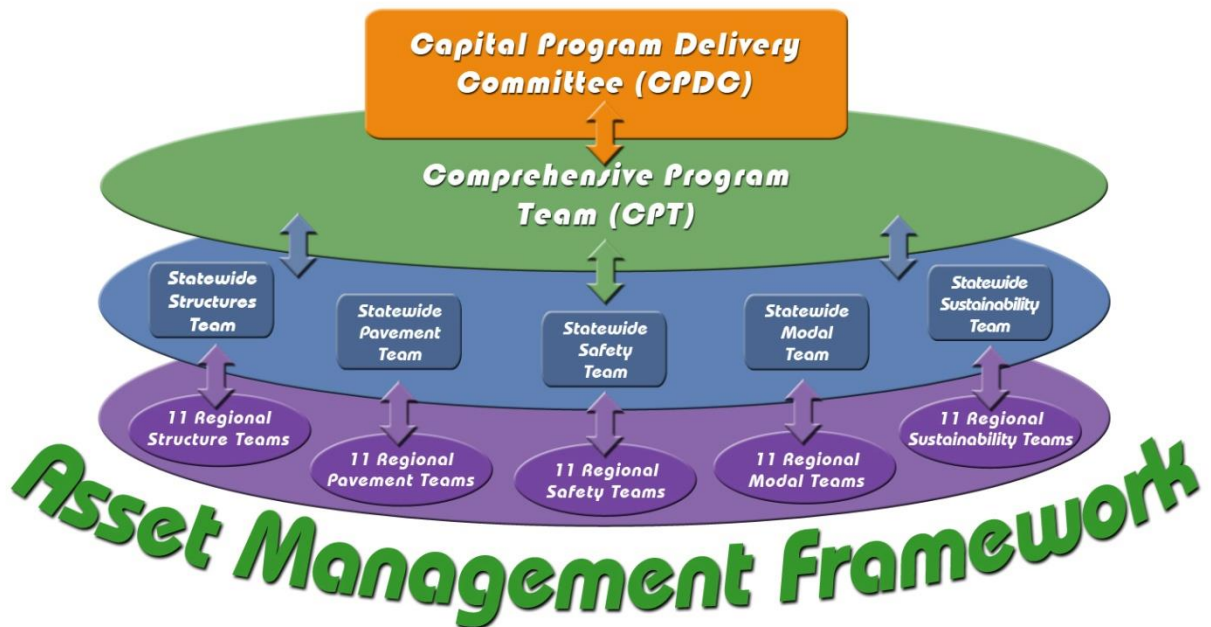
NYSDOT'S ASSET MANAGEMENT FRAMEWORK

“Asset Management is like Performance Management in that both are strategic “processes” intended to direct daily activities so that they contribute to the achievement of long-term institutional goals.” (FHWA: Publication No FHWA-HIF-09-022). Asset management is a process driven approach for addressing our current and future transportation system needs. It provides a uniform approach to gain a better understanding of what our assets are and their condition, and to evaluate various funding and treatment options to best address needs. It helps us to maximize the return on our investments, to extend the life of our most important assets and to influence the overall condition of our entire system.

Asset management is not new to the NYSDOT; there have been many efforts to move forward. However, while asset management has been an important part of the Department's investment strategy and programming for decades (FHWA-IF-05-024), in light of the growing backlog of investment needs and continued constrained resources, recent NYSDOT efforts have placed more focused comprehensive executive emphasis on asset management.

To address NYSDOT's urgent transportation infrastructure needs and challenges, in May of 2011 NYSDOT Commissioner Joan McDonald formed the Comprehensive Asset Management/Capital Investment (CAM-CI) Team. Within nine months, the team made radical changes to the way the Department plans its Capital Program and manages its infrastructure assets, steering the agency in a new and necessary direction. They worked creatively and collaboratively to re-engineer the capital program planning process; established an Asset Management Framework to support consistent decision-making with a focus on preservation; and built in measures of accountability to ensure that the State receives the largest return on investment and long term public benefits. With its re-engineered Comprehensive Program Update process for SFY 2012 to SFY 2016, NYSDOT specifically and explicitly incorporated sustainability into its transportation investment decisions. This collaborative decision making process ensures that our investments support future quality of life and the economic well-being of New York State.

Having a strong asset management framework and process in place has improved the ability to make good strategic decisions, decisions that support the long-term goal of providing a safe and reliable transportation system for our customers in a fiscally responsible and sustainable manner. The framework and process illustrated below has become the foundation for implementation of asset management within the New York State Department of Transportation at both the Statewide and Regional levels. Note that the structure shown is functional, not organizational. These are not new, dedicated staff but rather existing Main Office and Regional staff performing additional functional responsibilities. Also, Regional Asset Management Teams as shown in the chart are guided by the goals and functional guidance of the Statewide Asset Management Teams.



Asset Management teams are established at three levels of the organization. The primary role of the Executive Capital Program Delivery Committee (CPDC) is to provide high level guidance, review, approvals, and decisions related to the overall Program and major projects. The Comprehensive Program Team (CPT) sets the strategic direction of the Statewide and Regional Asset Management Teams. It provides the higher level or system-wide guidance, review, and approvals necessary to make sure NYSDOT is meeting the needs for the transportation system from a statewide perspective. CPT evaluates how well each Region's Comprehensive Program, individually and collectively, supports and advances the long-term goals and short term objectives of the Department.

Statewide and Regional Asset Management Teams were formed in all asset areas to address Pavement, Structures, Safety, Modal and Sustainability needs. Such a framework helps to manage expectations and allows NYSDOT, as steward of the transportation system, to facilitate the best investment for the system and the state. The Statewide Asset Management Teams work closely with the technical program areas to create a multifaceted resource for the Regions to assist them with their asset management efforts. The broad scope of regional and main office

representation on the Statewide Asset Management Teams (SAMT) unifies the asset management efforts and helps to overcome stove-pipe program focus.

Each team has established a charter that clearly articulates the assets managed, mission, short and long term objectives, purpose, composition, meeting frequency, and roles and responsibilities. The creation of multi-divisional teams comprised of those closest to the work has enabled the organization to grow and improve in the delivery of service to our customers. The Statewide Asset Team leaders are members of the Capital Program Team (CPT) along with other senior managers from across the Department. CPT decisions are ultimately considered by an executive-level Capital Program Delivery Committee (CDPC), which includes the Commissioner.

Each Region has some form of Regional Comprehensive Program Committee (RCPC) that is responsible for development and execution of the Region's comprehensive program. This provides an organized forum for the review and prioritization of the Regional Comprehensive Program consistent with the goals, objectives and strategies contained in the CPU instructions. The team considers issues and program alternatives for the purpose of providing guidance to the Regional Asset Management Teams (RAMT) in the development of Regional Comprehensive Program.

The RCPC is responsible for approval of project candidates who use the region's funds. Regional Asset Management Teams (RAMT) are formed to develop a Comprehensive Program that is consistent with the goals, strategy and guidance contained within the Comprehensive Program Update instructions. RAMT then establish a defined framework and process that provides the ability and authority to monitor the treatment selections, as well as the cost, scope and schedule for projects within their Regional Comprehensive Program, and make project selection decisions that are aligned with the "Forward Four" Guiding Principles of: Preservation First, System Not Projects, Maximize Our Return on Investments, and Make it Sustainable.

Establishing Asset Management Teams in all asset categories at both the statewide and regional level has created the structure needed to advance the Department's goal of implementing a strong asset management process. However, the ultimate success of the Department's asset management efforts will be determined by how well asset management principles are adopted and put into practice by the people doing the day to day work. As previously stated asset management is a strategic "process" intended to direct the daily activities so that they contribute to the achievement of long term Department goals.

With large, multi-disciplinary teams, there are many challenges and potential conflicts. Collaborative problem-solving skills need to be continually used and honed. As recognized in FHWA's Collaborative Problem Solving manual (USDOT, 2006), conflict can be positive, such as: addressing conflict in a forthright manner can produce positive results; conflict forces the recognition of differing perspectives, and provides opportunities to arrive at new understandings; struggling to accommodate diverse interests can be rewarding; addressing conflict also provides the option of responding in either a competitive or a cooperative fashion. If a competitive posture is chosen, damaged working relationships and a lack of progress in achieving goals is often the result (USDOT, 2006).

The leaders of each of the Asset Management Teams encourage full participation of all members, articulating values and norms such as “no stripes”, “be fearless but reasonable”, “be committed, targeted and focused”, “speak freely and encourage vigorous debate”, “resist change resistance”, “focus on the greater good for the good of the state”. The leaders set a tone of inclusiveness, high expectations, strong organization and unrelenting commitment. The response has been enthusiastic and engaged.

WHY A SUSTAINABILITY ASSET MANAGEMENT TEAM?

Asset management and sustainability go hand-in-hand; it’s about making responsible decisions at all levels. Having a strong asset management framework and process in place improve the ability to make good strategic decisions; decisions that support the long-term goal of providing a safe and reliable transportation system for customers in a fiscally responsible and sustainable manner.

NYSDOT realizes that it must make strategic and deliberate decisions that support its transportation system today, while also ensuring and optimizing transportation for future generations. An asset management framework which includes sustainability as an over-arching principle will help transportation agencies look strategically and critically at investment choices and better inform those involved in the decision-making process. NYSDOT made a conscience decision to create a separate sustainability team within its new asset management framework to ensure sustainability is considered in all asset teams and during the capital program update process.

NYSDOT’s Statewide Sustainability Asset Management Team (SSUST) provides a forum for sharing best practices and addressing issues and concerns related to sustainability. SSUST, in collaboration with Regional Sustainability Asset Management Teams (RSUST), promotes sustainability best practices in asset management across the state and across disciplines and program areas. The SSUST coordinates with other regional and statewide asset management teams (i.e., pavement, bridge, safety and modal teams) to promote an understanding of sustainability considerations, adaptation/resiliency issues, tools and practices. Team members partner within the Department and with external stakeholders to promote sustainability principles, policies and practices in transportation.

The SSUST’s mission is to integrate sustainability into all that NYSDOT does by educating and equipping NYSDOT employees with the knowledge, skills, and tools necessary to make sustainability part of NYSDOT’s culture. SSUST’s vision is for NYSDOT to exemplify how transportation supports a sustainable society by advancing environmental stewardship, economic competitiveness and social equity in all of our transportation decisions and actions. The Statewide Sustainability Asset Management Team is building a common understanding of what sustainability means to NYSDOT, developing tools necessary to integrate sustainability into decision-making, and fully integrating sustainability into the Department’s asset management practices, capital program process and operations. A sustainable approach to programming considers the value of our assets as they benefit the public, economy and environment now and for the future. Through strategic investment in the state’s transportation system -- highway pavements, bridges, public transportation, rail, aviation and ports -- the New York State Department of Transportation is taking action to support economic growth across the state. By doing so, NYSDOT is addressing these issues creatively so that we can build a legacy of safety, mobility, economic development, enhanced quality of life and environmental sustainability for

our children and future generations. To that end, NYSDOT has taken the lead to incorporate sustainability principles of the Triple Bottom Line into its capital program investments. To the best of our knowledge, no other state DOT has specifically incorporated sustainability into its investment decisions and asset management framework.

FORWARD FOUR GUIDING PRINCIPLES

To ensure a unified and clear vision, NYSDOT developed and branded the “Forward Four” guiding principles: ***Preservation First; Systems not Projects; Maximize Return on Investment; Make it Sustainable.*** Inherent in all of our investment decisions is protecting public safety. Each of the “Forward Four” principles -- Preservation First; System not Projects; Maximize Return on Investment; Make It Sustainable – individually emphasize a sustainable approach to consider economic competitiveness, environmental stewardship and social equity; collectively they ensure integration of sustainability into NYSDOT’s decisions and investments. Following the Forward Four principles helps to guide strategic, tactical, and operational transportation decisions that integrate sustainability principles. As described in Nelson, et al. (2011), by adhering to these principles, NYSDOT strives to keep the transportation system safe and maximize the life of existing infrastructure while working to improve livability and promote economic development within the context of limited financial resources.



- Preservation First** – recognizes that limited resources at all levels of government cannot support a “build new” or “worst first” approach. To ensure the State’s transportation system can continue to support future commerce and personal travel demands, NYSDOT will focus first on preserving the existing infrastructure. Such a strategy is a cost-effective use of resources and provides a solid foundation for a sustainable future by preserving linkages to, and the viability of existing communities and businesses; supporting jobs and economic growth; maximizing use of existing materials and infrastructure; and minimizing waste and footprint.
- System Not Projects** – While the capital program is composed of many projects, they must lead to a safe and efficient multi-modal transportation system. Critical transportation corridors in the State (including both long-distance and local corridors and encompassing all transportation assets) must remain safe and functional, and provide uninterrupted connectivity for system users. System-wide conditions require a system and program-driven, rather than a project-driven, solution. That is, while the capital plan is made up of individual projects, these projects must consider the transportation system as a whole. To address the needs of system users, NYSDOT considers an individual project in the context of how it contributes to or improves the larger transportation system.

- Maximize Return on Investments - Funding for transportation infrastructure and services at all levels of government has been and will continue to be less than required to address all of the State's recognized needs. The age of the infrastructure combined with harsh winters, other severe weather events, climate change and constrained resources are resulting in a growing backlog of investment needs. NYSDOT is emphasizing proper management of assets with appropriate treatments, at appropriate times, and at the appropriate locations. This means maximizing the life of the existing treatment by investing in a facility only when the remaining life of the previous treatment has been exhausted. Replacement of roadways and bridges should occur only when absolutely necessary.
- Make It Sustainable – This principle recognizes that sustainability, balancing economic, social and environmental considerations is an overarching principal, and NYSDOT needs to incorporate sustainability considerations into all of its actions and investments. A sustainable approach to transportation investment considers the relative and cumulative value of the assets as they benefit the public, economy and environment. The decision-making can be enhanced by looking broadly at the wider benefits of each transportation investment. NYSDOT is focusing on ways to preserve the existing transportation system while incorporating sustainability considerations into investment decisions (at both the project and program levels) and into its actions. NYSDOT will support opportunities for innovation, economic growth and development. This must be done in a fiscally responsible manner, considering life cycle cost as well as fiscal cycles and how the transportation system supports a sustainable society.

EVALUATING CAPITAL PROGRAM SUBMISSIONS

The “Forward Four” and more formal, detailed guidance document formed the basis of the 2011 Capital Program update. The newly formed Statewide Sustainability Asset Management Team was established to include representatives from all program areas – including operational managers, environmental specialists, modal planners, policy staff, pavement and structures engineers and several regional representatives. The primary functions of each of the Statewide Asset Management Teams are to provide policy and procedure guidance, program review and support to the Regional Asset Management Teams as they develop and implement their Comprehensive Program; review Regional Comprehensive Programs to ensure consistency with the overall goals, objectives and strategies as stated in the Comprehensive Program Update Instructions; and recommend the approval of individual Regional Comprehensive Programs to the Comprehensive Program Team.

This process has worked to achieve the desired results. Our new Comprehensive Program Guidance provides a unifying strategy. This was the first comprehensive program guidance that specifically instructed that sustainability concepts be considered and discussed. The resulting regional submissions provided an overall look at each region's view of sustainability and current practices. As part of its programming, NYSDOT will implement creative and low-cost ways to increase multi-modal, non-polluting and less-polluting forms of transportation. In doing so, NYSDOT's actions will reduce waste, improve safety for all users, increase livability, implement “smart growth” principles and utilize sound environmental practices. The Statewide Sustainability Asset Management Team will monitor the comprehensive program

implementation for consistency with sustainability considerations and develop metrics for gauging success of capital program implementation and asset management through a sustainability lens.

Equally important, the lessons learned in our review process helped SSUST to understand our strengths (including the tremendous synergies we discovered from the diverse perspectives brought to the table), and to clearly identify gaps and guidance needed, and begin to develop a plan for future work with the Statewide and Regional Teams.

FORMING REGIONAL TEAMS

An innovative and visionary move for each of the Asset Management Teams, starting with the CAM-CI Team, was to establish a team membership from outside the traditional program areas and disciplines to ensure diverse perspectives. Comparable to the value engineering concept, this proved to be essential to provide a new and objective look at how the Department approached capital asset investment planning and management and to initiate change. The team members represent multiple disciplines, program areas, and perspectives. The team dynamic generates energy and ideas, with all ideas and strategies being developed from the collective group rather than from individuals. This model is shared and encouraged for the development of Regional Asset Management Teams.

Some of the regions already had sustainability teams in place, but SSUST discovered that these teams did not fully encompass the broader asset management and sustainability perspective. In some regions, the sustainability focus was largely on the environmental side of the triple bottom line – looking at ways to be more energy efficient and environmentally conscious. In other regions, while they did not have “sustainability teams”, they had other groups, such as mobility teams, that were already engaged in sustainability-related work. The Statewide Sustainability Asset Management Team is working closely with the appointed Regional Sustainability Chairs or ‘Champions’ to assist and guide them as they form their Regional Sustainability Asset Management Teams. In May 2012, NYSDOT leaders held “Sustainability Summit” with SSUST Team members and newly appointed Sustainability Champions from the 11 regional teams. The outcome of the summit was a collective understanding for team goals, information sharing, acknowledgement of executive support, and working groups to move forward.

Our efforts since this time have been fast paced. We have determined that to meet our Sustainability Asset Management Team needs, each Regional sustainability team should have the following characteristics:

- A Sustainability Team Leader or “Champion”
- Cross-discipline representation
- At least one member shared with each of the other regional asset teams
- Diverse perspective
- Collaborative team members
- Intentional/regular meetings

Teams are building in each region based on the above model. The teams are now further engaged as our capital programming efforts are moving forward to meet our Governor’s and

legislature' capital program timelines and as we move into our next Transportation Improvement Program/Statewide Transportation Improvement Program (TIP/STIP) update.

Statewide and regional teams have engaged in smaller group efforts to develop criteria for exemplary sustainable projects, to work on additional tools and measures development, and to expand on corridor guidance. The immediate engagement of the teams has helped to strengthen the importance of the effort, and to engage the sustainability team leaders in shaping the emerging sustainability tools and guidelines. These evolving efforts and sustainability asset management structure have great potential for pushing sustainability further into NYSDOT's culture – from the regional program area level to the Commissioner level and to our external partners and stakeholders as they undertake their capital programming.

MEASURING OUTCOME

NYSDOT is more formally engaging in efforts to measure its success in achieving sustainable results. As we bring sustainability into the capital program and asset management process, it is important for the Department to look at measuring how successful these efforts are in addressing sustainability. The NCHRP guidebook for sustainability performance measurement (NCHRP Report 708, 2012) is a useful tool as the Department begins this process. The NCHRP Guidebook for Sustainability Performance Measurement for Transportation Agencies (NCHRP Report 708, 2012) provided NYSDOT with a much needed methodology and comprehensive list to develop sustainability performance measures. NYSDOT has completed an initial screening of measures with consideration given to data that is currently available as well as the outcomes we are trying to measure.

NYSDOT Sustainability Leaders are developing a table to link our sustainability vision to our actions. As envisioned, this table will include goals, objectives and measures and provide a template to identify sustainability current states, desired future states and plans for accomplishing this in all three sustainability realms, tying them to program priorities.

Such a tool will enable us to monitor the implementation of our capital program for consistency with sustainability considerations using performance metrics. We are keeping the measures simple and based on data that NYSDOT already has, will have soon, or might be easily obtained. This will help NYSDOT focus on long term sustainability goals from a more holistic perspective and across program areas using the triple bottom line realms of economy, environment and communities.

SEEING RESULTS

By linking our vision to our actions, taking a systems approach as we empower our leaders and coalitions, NYSDOT is forging the path to interweave our sustainability vision into our culture. Change takes time and commitment, and requires support and engagement from all levels. NYSDOT's efforts are evolving and we are learning. Sustainability is complex, and making sustainability "overarching" is challenging. In incremental fashion, we believe we are forging a path that is moving us towards our vision.

NYSDOT continues to build a path to “aligning transportation programs with the needs of a sustainable society” by developing tools (suite of GreenLITES tools and CPU program assessment tools) and changing the Department culture. Most notably we have:

- Developed a sustainability vision, mission and implemented new sustainability strategies.
- Formed a new asset management framework which intentionally incorporates sustainability.
- Developed the forward four guiding principles for the new asset management framework and teams to use.
- Linked sustainability with the asset management framework and capital program update process as an enterprise-wide “culture change” endeavor.

NYSDOT’s re-engineered capital program update process and asset management framework embrace and incorporate sustainability as an overarching principle are models for other states facing the confluence of challenges of aging infrastructure and financial constraints. NYSDOT’s approach places an emphasis on asset management, focusing on preserving and maintaining the system and moving toward a unifying strategy. By taking action now, engaging staff at all levels and across disciplines, we will ensure that our decisions support future quality of life and the economic wellbeing of New York State.

BIOGRAPHICAL SKETCH

Debra Nelson is the Assistant to the Director of the 5,000 member Operations Division for NYS Department of Transportation. Deb was recently appointed to the Commissioner’s Comprehensive Asset Management/Capital Investment Team charged to develop and articulate an investment strategy, framework and process to preserve and manage the multimodal transportation assets of the state in a manner that is economically, environmentally and socially sustainable. Debra is involved in statewide and national efforts on environmental stewardship and sustainability in transportation, serving on projects of the National Cooperative Highway Research Program, Strategic Highway Research Program and National Highway Institute. She is a committee member TRB Committee on Ecology and Transportation and is the 2013-2015 steering committee chair for ICOET.

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