

THE NATURE CONSERVANCY & DOW

# 2014 Annual Progress Report





## Working Together to Value Nature

More than four years ago, leaders from our two organizations began a conversation about the intersection of nature and business, focused on examining how appropriately valuing and accounting for nature can help improve business decisions. When that conversation first took place, few other sustainability leaders in non-governmental organizations (NGOs) or the business world were even considering the benefits that natural ecosystems can provide for the operations of companies, let alone beginning to understand opportunities to invest in nature and its benefits to business and society, and the potential risks of not doing so.

From that early conversation, the foundational goal, commitments and call to action for our collaboration emerged – to develop and apply methods to evaluate the benefits nature provides and create a strategic way for companies to assess, incorporate and invest in nature and these benefits. We at The Dow Chemical Company and The Nature Conservancy are proud of the progress we've already made towards this goal in our four years of working together. Perhaps more importantly, we're particularly pleased to see the increase in corporate analysis of ecosystem services opportunities across the business world, as well as the movement toward deeper collaborations between non-profit and for-profit sectors; and we believe our Collaboration's leadership has played a role in that growth, both directly and indirectly.

This document represents our fourth annual progress update, highlighting the work completed at our first two pilot sites, our efforts to develop tools for companies to identify more easily the benefits nature provides at their sites, and the conservation impacts that may be achieved from thoughtfully integrating them into business decisions.

Analyses from our pilot projects continue to highlight the importance of companies properly valuing nature as well as the unique challenges and opportunities. Appropriately assessing nature's value to a company, community, and the world is difficult. Although new datasets, methods, models, and technology are constantly being developed that might facilitate our analysis, this is still an emerging area of study. Our organizations have worked diligently to combine our expertise, capacity, and resources into one dedicated team pursuing a common goal of enabling companies to properly account for the value of nature for the benefit of both their bottom line and conservation.

As always, we are excited to share the results and learnings of the past year of our efforts, and we welcome your feedback on our work to date, as well as the direction of our Collaboration in the coming year.

Sincerely,

Neil Hawkins  
Corporate Vice President and  
Chief Sustainability Officer  
The Dow Chemical Company

Glenn Prickett  
Chief External Affairs Officer  
The Nature Conservancy



## Overview

At the beginning of 2011, The Dow Chemical Company (Dow) and The Nature Conservancy embarked on a novel Collaboration to help Dow and the business community recognize, value, and incorporate nature into business decisions, strategies, and goals. The Collaboration embraces a theory of change that the inclusion of ecosystem services information and models in business decisions has the potential to produce stronger business performance and improved conservation outcomes.

The two global organizations are applying scientific knowledge and experience to develop and apply methods and tools for companies to use by examining how Dow's operations interact with nature. Nature provides benefits, often called ecosystem services, upon which everyone depends.

The Collaboration is exploring opportunities to better incorporate the value of nature into business decisions across Dow – at the corporate level and at sites around the world. Initial efforts focused on large “pilot site” analyses at Dow sites, starting in Freeport, Texas, and continuing in Santa Vitória, Brazil, where the team conducted in-depth investigations into a variety of business questions related to ecosystem services. The results are building the evidence base for how and when companies benefit from nature, as well as the tools required to replicate these analyses for other sites and businesses. More recently, efforts have focused on how Dow can move from estimating the value of ecosystem services at two sites to regularly assessing ecosystem service values at more than 200 sites by developing the Ecosystem Services Identification and Inventory (ESII) tool.

The Collaboration's efforts are building the foundation of Dow's next-generation approach to sustainability, which will help address business decisions related to nature organization-wide. The Collaboration is committed to sharing results and tools publicly through peer-reviewed publications and various other communications so that other companies, scientists, and interested parties can test, apply and benefit from the Collaboration's work. Further, the Collaboration has begun to share our experience with policymaking authorities and key stakeholders around the world to raise awareness and inspire broader action. As more companies use these methods and tools, we expect that greater investment in nature conservation should follow because in many cases, such investment makes good business sense.

2014 marked the fourth of the six-year Collaboration agreement. Dow and The Dow Chemical Company Foundation have collectively committed \$10 million to the Collaboration over the duration of that term.

## Evolution of Goals

As the Collaboration moves into its final two years, the focus has shifted from research to broad application across Dow and beyond. The third pilot will not be focused on a single site as the first two pilots were, but rather will seek to demonstrate how a company like Dow can incorporate the value of nature into business decisions across many sites and in different contexts. We will build upon the knowledge, tools, and capacity that the Collaboration has established over the last four years. By integrating this pilot work with the next generation of sustainability at Dow, we envision that this process will be part of a lasting transformation in Dow's approach to nature and provide a road map for others to follow.





# Pilot Site Activities

## Pilot Site #1 – Freeport, Texas

The Collaboration's first pilot site was Dow Texas Operations in Freeport, Texas, which is Dow's largest integrated manufacturing site globally and the largest single-company chemical complex in North America. Texas Operations manufactures more than 40 percent of Dow products sold in the U.S. and more than 20 percent of Dow products sold globally. It is also located at the intersection of the Gulf of Mexico, the lower Brazos River and the Columbia Bottomlands, an area encompassing a network of freshwater, marsh and forest ecosystems that are critical not only to Dow's operations but to fish and wildlife, agriculture, and local communities.

The Freeport pilot, completed in 2013, focused on three ecosystem services upon which the Texas Operations facility and conservation in the region depend, and provided an opportunity to advance ecosystem science and conservation strategies that could have significant impact on these priority resources:

### 1. Reforestation as a business solution for air quality

The pilot analysis showed for the first time how reforestation of peri-urban areas may be a cost-effective approach to address regional, ground-level ozone control and can produce important ancillary benefits. The team identified key criteria for maximizing the ozone abatement and cost effectiveness of such reforestation and the substantial potential for its application in the U.S. Despite often decades-long control efforts in many regions of the world, ambient concentrations of ground-level ozone continue to threaten human and ecosystem health. Land use and climate change in many of these regions could counteract ongoing efforts to reduce ozone concentrations.

Combined with the rising cost of more stringent, conventional, technological ozone controls, there is a need to explore novel approaches to reducing ozone pollution. Reforestation could be part of the solution.

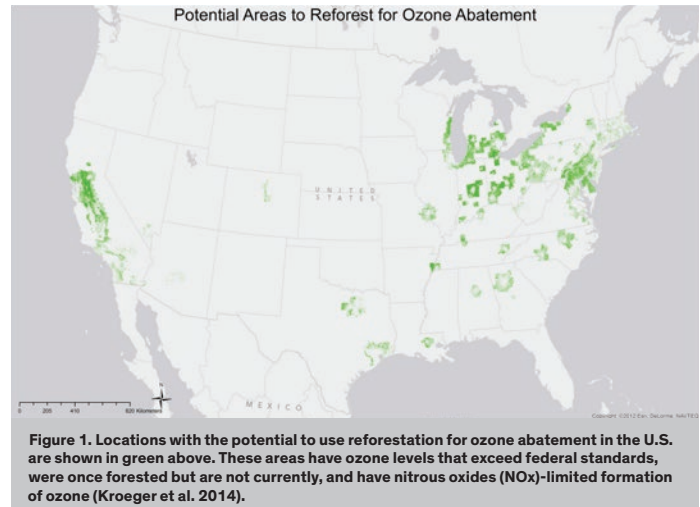
The findings of the air-quality pilot analysis were published this year:

- Kroeger, T<sup>1</sup>, FJ Escobedo<sup>2</sup>, JL Hernandez<sup>3</sup>, S Varela<sup>2</sup>, S Delphin<sup>2</sup>, JRB Fisher<sup>1</sup> and J Waldron<sup>4</sup>. 2014 Reforestation as a novel abatement and compliance measure for ground-level ozone. *PNAS Plus*. 111(4):E4204-E4213.

<sup>1</sup> The Nature Conservancy, <sup>2</sup> University of Florida, <sup>3</sup> ENV DAT Consulting, <sup>4</sup> The Dow Chemical Company

The Collaboration is now beginning engagement with state and federal regulators to determine if large-scale reforestation for ground-level ozone mitigation can be included in the Texas State Implementation Plan (SIP), thereby providing Dow and other Texas-based companies the ability to consider large-scale reforestation as a method to help reduce ozone precursors. The SIP is a plan for each non-attainment zone that identifies how that state will attain and/or maintain the primary and secondary National Ambient Air Quality Standards set forth in the Clean Air Act. If successful, there is also the potential that this concept could be applied more broadly across the country.

Reforestation is a significant option in many of the areas with high ozone levels, as can be seen by mapping undeveloped areas in the U.S. that were once forested but have since been cleared and in which ozone exceeds 80 ppb (areas denoted in green in Fig. 1). The Collaboration looks forward to engaging with the agencies and other stakeholders in promoting reforestation where it can be effective in reducing ozone pollution, as it represents a strong opportunity, both for companies and for nature.



### 2. The value of freshwater to business

Valuation of Dow's freshwater assets in Freeport revealed a much higher value than is recognized by simply considering water-related expenses. The team modeled how this value would shift with future climate change and demand and also forecasted future prices for water to guide Dow's water strategy. The study demonstrated that there is limited opportunity to mitigate risks via water markets in highly

industrialized basins; however, it also showed there may be an opportunity to mitigate risks through nature-based solutions. In fact, three out of five of the nature-based solutions evaluated (e.g., watershed land management) were cost competitive with a traditional solution, but these solutions face important technical and logistical hurdles. The substantial community and ecosystem benefits, however, suggest that these solutions may be appropriate for multi-stakeholder investments.

One article from the freshwater pilot analysis was published this year, (another article is pending submission):

- Reddy SMW<sup>1</sup>, RI McDonald<sup>1</sup>, A Maas<sup>1,2</sup>, A Rogers<sup>1,3</sup>, EH Girvertz<sup>1</sup>, J North<sup>1</sup>, J Molnar<sup>1</sup>, T Finley<sup>4</sup>, G Leathers<sup>4</sup>, J DiMuro<sup>4</sup>. 2015. Finding solutions to water scarcity: incorporating ecosystem service values into business planning at The Dow Chemical Company's Freeport, TX facility. *Ecosystem Services* 10.1016/j.ecoser.2014.12.001

<sup>1</sup> The Nature Conservancy, <sup>2</sup> Department of Agricultural and Resource Economics, Colorado State University, <sup>3</sup> Nicholas School of the Environment, Duke University, <sup>4</sup> The Dow Chemical Company

The freshwater analysis resulted in changes in Texas Operations' water-management plan to better account for the value of water and risk from climate change. Opportunities to apply water-price forecasting in other contexts or pursue nature-based solutions will be investigated further in the remaining years of the Collaboration.

### **3. The role of coastal habitats in storm risk mitigation**

The coastal pilot analysis demonstrated the role of wetlands in reducing wave heights and property damages from hurricanes, while also providing other previously unquantified values to the community (e.g., recreation, fisheries habitat) and biodiversity. Importantly, the analysis showed that sea-level rise and loss of wetlands could increase damages from hurricanes and reduce the integrity of a levee. However, the existing marshes did not provide enough protection given the conditions in Freeport to warrant a change in levee design that would produce cost savings. Analysis of the model suggests that application to other sites closer to shore with larger habitats or less severe storm conditions may offer greater benefits.

The coastal analysis did not result in a change in Texas Operations levee design to account for coastal habitats; however, it increased Dow's understanding of the value of coastal habitats and resulted in a replicable method that may be used at other sites.





## Pilot Site #2 – Santa Vitória, Brasil

The second pilot site was located at the Dow-Mitsui joint venture, Santa Vitória Açúcar e Álcool (SVAA), based in Santa Vitória, Brazil. SVAA sits in the western region of Minas Gerais State, on the border between two critically endangered biomes: the Cerrado and the Atlantic Forest. This region sits in the heart of Brazil's agricultural region, where less than 20 percent of natural vegetation remains, and what is left is highly fragmented and poorly protected. SVAA is planning the expansion of sugarcane fields in existing pastureland for the production of ethanol, while adhering to Brazil's Forest Code. The Forest Code is a federal law that stipulates a minimum proportion of natural vegetation be set aside on privately owned lands, and it serves as a key mechanism for conservation in agricultural areas in Brazil. The Collaboration's pilot efforts focused on identifying ways that SVAA can expand agricultural production while simultaneously adhering to environmental legislation and promoting conservation in this biologically and economically significant region.

### **Balancing economic and nature trade-offs**

The Collaboration developed land-use planning tools and conducted landscape modeling to facilitate strategic decisions on agricultural expansion. Scientists from The Nature Conservancy, working with external experts, integrated spatial models of agricultural profit (including both cattle ranching and sugar cane expansion), biodiversity (proxied by bird and mammal species), and water quality (proxied by nutrients and sediments) to determine the maximum number of species and water quality for a given economic return, also called the "efficiency frontier." These frontiers mapped all possible combinations of natural and agricultural land, such that agricultural profit and biodiversity or ecosystem services were optimized. Given that decision-makers may prioritize services differently, efficiency frontiers were generated that varied the importance of biodiversity and water quality. This analysis illustrates the trade-offs and synergies in the provisioning of agricultural profit, biodiversity and water-related services under different land use decisions.

Models predicted that an array of land-use patterns could support agricultural profit potential along with high biodiversity and improved surface water quality, but that the specific outcomes depended upon the weights ascribed to each service in the analysis (Fig. 2). There were clear opportunities to improve both agriculture and the environment in the region (Fig. 2, see "current" point in relation to unconstrained frontiers). By strategically locating natural vegetation to best meet conservation objectives with low opportunity costs to agriculture, models predicted that the same agricultural profit could be supported while maintaining 100 additional species in the landscape and reducing the total nitrogen, phosphorus and sediments reaching waterways by more than 3, 1.5 and 1.2 times, respectively. Even when only 20-22 percent of the region was put into natural habitat, up to 92 percent of all possible birds and mammals could be supported and up to 91 percent to 95 percent of nitrogen, sediment and phosphorus loads could be retained in the watershed (Fig. 2, see inflection point "A").



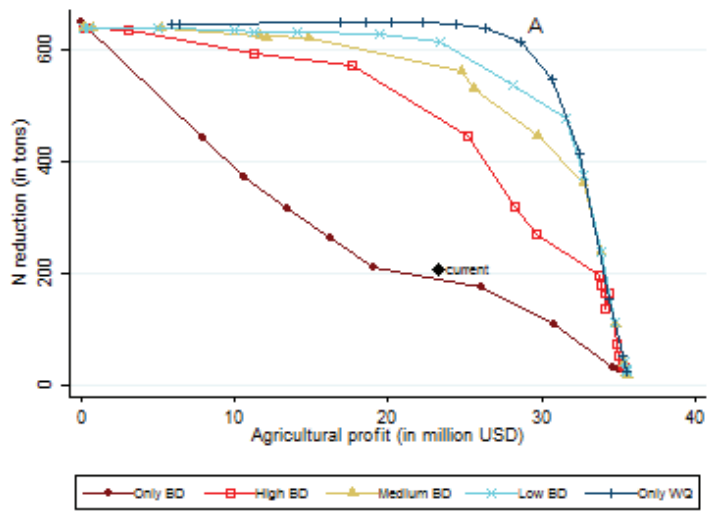
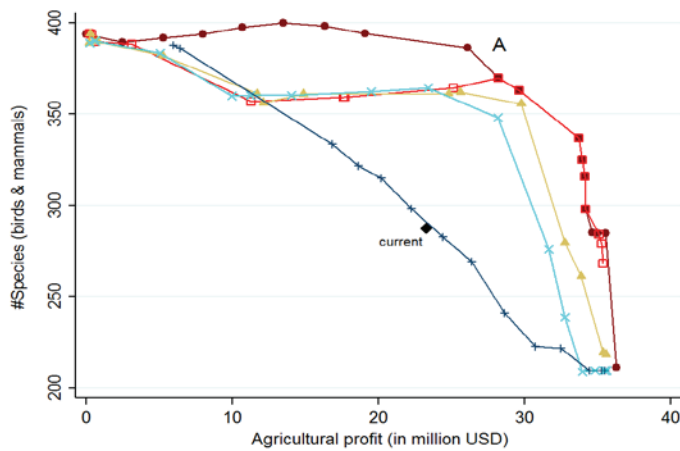


Figure 2. The unconstrained efficiency frontiers for the trade-offs between agricultural profit and A) biodiversity (BD) and B) surface water nitrogen loads for different weights on BD (denoted in shades of red) and water quality (WQ) (denoted in shades of blue). The different efficiency frontiers revealed that single-objective land use planning (i.e., when all weight is on one target) would result in inadvertent losses of other services. On the other hand, both biodiversity and water-quality objectives were well-attained under joint land-use planning (Medium BD scenario, denoted in tan).

### Improving the efficiency of the Forest Code

The Collaboration scientists also evaluated the economic and environmental impacts of compliance with Brazil's Forest Code based on two different planning scales: 1) status-quo, property-level compliance, under which a portion of each farm is set aside in natural vegetation and 2) landscape-level compliance, under which land holders can offset their legal requirements by protecting and/or restoring habitats on other properties within the same watershed. Analyses revealed that landscape-level compliance, if done strategically, could lead to outcomes that could serve as the best option for the region. In contrast, property-level compliance, which is the norm for the Forest Code, produced outcomes that were inefficient and imposed greater trade-offs between profit and biodiversity in particular.

Property-level compliance resulted in smaller, more isolated habitat remnants dispersed across an agricultural mosaic (Fig. 3). In contrast, landscape-level compliance allowed for the most profitable lands to be devoted to agriculture and for natural habitats to be aggregated into larger, more connected patches. For these reasons, larger-scale land-use planning generated both economic

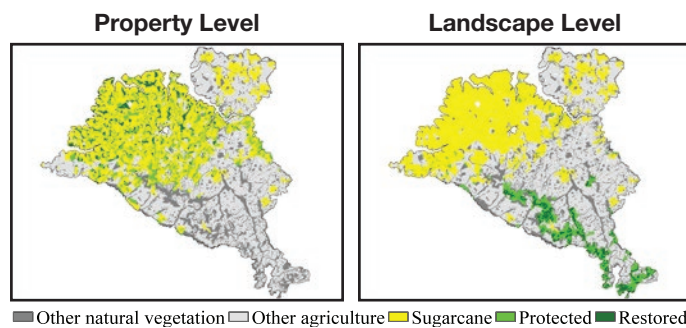


Figure 3. Land-use patterns due to Forest Code compliance at different scales (property vs. landscape level). The optimization procedure minimized sugarcane production and Forest Code compliance costs, while meeting the industry average sugarcane production target.

and conservation benefits – reducing agricultural production costs and environmental compliance costs by USD \$19-35 million over the typical agricultural lease period of six years, while at the same time supporting up to 70 more species, potentially storing an additional 151,000 tons of carbon, and maintaining the same water quality.

### Promoting sustainable landscapes

Pilot-site findings revealed that implementing Brazil's Forest Code at larger spatial scales could improve both business and environmental outcomes. The Forest Code allows for farms to offset their legal requirements by protecting or restoring habitats on other properties within the same watershed or biome. These opportunities, however, are not often seized for a myriad of reasons, which include logistical hurdles to multi-landowner coordination; lack of large-scale assessments and clear land tenure; and potential spatial mismatch between the perceived beneficiaries and those bearing the costs of compliance. Collaboration research provided the first attempts at providing information and tools to help overcome some of these obstacles.

Overall, the pilot research suggested that – through land use that balances economic and environmental objectives at a landscape scale – Brazil's agricultural sector could expand its production and meet regulatory requirements in a way that could further benefit conservation, local people and business. This finding has broad significance for both business and conservation, given that agriculture is not only a dominant land use in Brazil and elsewhere globally but also is projected to expand in the coming decades.

Similar to the Collaboration's work in Texas, the Brazil team is developing papers based on these findings for submission to peer-reviewed, science journals in the coming year.



## Pilot Site #3 – Integrating the Value of Nature at Multiple Sites

The Collaboration is about to begin its third and final pilot. This pilot will be different than the previous two, as it shifts from researching potential links between business and nature to showing how the value of nature can be integrated across an organization. The third pilot will demonstrate and test how Dow can incorporate the value of nature as part of its next-generation approach to sustainability, providing a blueprint for a corporate process to:

1. Establish a baseline general understanding of the value of ecosystem services across multiple sites;
2. Screen multiple decisions for their benefit from and impact on nature; and
3. Evaluate the most promising natural-capital opportunities in depth based on how they benefit business, society and nature.

This is how the Collaboration will learn different ways to better incorporate consideration of the value of nature across a company.

The third pilot will build on the knowledge, tools and capacity that the Collaboration has built over the last four years. The ESII Tool (see next page) will be used to provide the ability to rapidly assess eight ecosystems services on and adjacent to business sites, and baseline data from the tool will help build a better understanding of the value of nature to the business and surrounding community.

It can also be used to explore alternative project designs, together with other screening tools that are in development. These screening-level assessments will help identify the most promising opportunities and trigger more in-depth analyses where appropriate. The in-depth analyses will draw on the general, and sometimes specific, approaches, methods and models that were developed in the first two pilots.

In order to test whether this approach is sufficiently robust and flexible to implement at a corporate scale, the third pilot will analyze several representative sites, business decisions and ecosystems services, and will include small and mid-size sites, as they represent the majority of Dow's sites worldwide. At these sites, multiple business decisions and related ecosystem services will be investigated.

The Collaboration expects that the third pilot will provide the foundation for a company-wide approach to incorporating the value of nature into business decisions at Dow that can also serve as a model for other corporations. By touching multiple sites and types of business decisions, the aim is not only to deliver methods and business cases, but also to build capacity and spark innovation in the minds of Dow's greatest asset, its people. As with the first two pilots, results will be shared broadly with external stakeholders.

# ESII Tool

## Overview

Following the detailed analyses at our pilot sites, the Collaboration sought to create a rapid, site-based tool that could provide general information on ecosystem services delivered by nature onsite and trigger deeper analyses and actionable business decisions. During 2014, the team, comprised of Dow, The Nature Conservancy and ecosystem-services consulting firm Ecometrix Solutions Group (ESG), made significant strides in developing the Collaboration's Ecosystem Services Identification & Inventory (ESII) Tool, which is designed to help companies roughly estimate the business value from nature on and adjacent to their sites, as well as the public value from lands on-site.

The ESII Tool software will enable a site technician to collect relatively simple ecological data through an app on a tablet device, which will then be input into ecosystem models that can identify and generally estimate the rather complex production of ecosystem services at a site. The output data will provide a biophysical measure of the ecosystem services on the site and can also be used to educate financial or economic models to better define the value of ecosystem services.

The ecosystem services modeled by the ESII Tool include:

- Water provisioning
- Water quality control
- Water quantity control
- Air quality
- Local climate regulation
- Erosion regulation
- Aesthetics—visual and sound
- Flood mitigation

This year, the team focused on model validation and ensuring buy-in and usability across Dow. Scientists and engineers from Dow, The Nature Conservancy, ESG and other organizations reviewed each of the ecosystem services sub-models within the tool. The Collaboration team also conducted a thorough “voice of the customer” survey, presenting webinars and interviewing more than 25 Dow personnel around the world to determine the types of business decisions the ESII Tool should help educate and how it could create value for Dow. This investigation identified additional areas of opportunity for the ESII Tool, as well as the early adopters, key characteristics and features, and best practices for rollout and adoption across Dow's operations. Focus areas for actionable decisions were found to encompass:

- Site resilience opportunities
- Ecosystem-services baseline screening
- Green infrastructure opportunities
- Land-use decisions and natural-asset management strategies
- Conservation and restoration analyses

Based on this information, the tool design was modified to better facilitate decision-making through the modeling of different alternative scenarios.

Following initial pilot testing at the end of 2013, a second round of in-depth testing was conducted at two sites – Institute, West Virginia, and Bristol, Pennsylvania – in 2014.

In Institute, West Virginia, Dow site managers were in the process of removing a tank farm and re-developing the area as a greenbelt. The site managers were interested in re-development plans that managed run-off from the site. The ESII Tool team worked with the site managers to evaluate ecosystem services under the current, baseline condition and under site design alternatives. The design alternatives included various levels of stream restoration, re-vegetation and tree planting, compared to a baseline plan of simple grading and grass planting. Cost estimates for the different options were provided by a Dow engineer and a habitat restoration expert from The Nature Conservancy.

The Institute business case confirmed that the ESII Tool could support companies valuing ecosystem services and inform actionable decisions, and it also demonstrated that it could educate Dow site employees. Results indicated that the re-development option that uses sustainable landscaping provides higher ecosystem-service performance compared to the baseline. The tool also:

- Provided an estimate of natural area created and ecosystem services to business and the public, and habitat area;
- Compared cost-effectiveness for ecosystem services provisioning;
- Identified cost-savings opportunities by understanding ecosystem function (e.g., reduced fill costs, reduced mowing costs)
- Advanced the engineering capacity and technology for greenbelt design; and
- Educated site employees about key ecosystem services.

The Collaboration presented the current iteration of the ESII Tool to an audience of scientists, corporate sustainability leads, government practitioners and others at a key industry conference, A Community on Ecosystem Services Conference (ACES) in Arlington, Virginia, in December. In 2015, the team expects to finalize the tool for sharing across Dow and among a select set of external corporate users, with wider availability in early 2016.

The Collaboration believes that adoption of the ESII Tool will lead to stronger business performance by informing actionable decisions and identifying cost-effective conservation and restoration outcomes. The tool will provide both Dow employees and others with a greater understanding of the benefits that a site receives from nature and will inform decisions to protect, restore or monitor specific natural assets. Ultimately, the ESII Tool will be an important part of the Collaboration's mission to incorporate the value of nature into business decisions, strategies and goals.

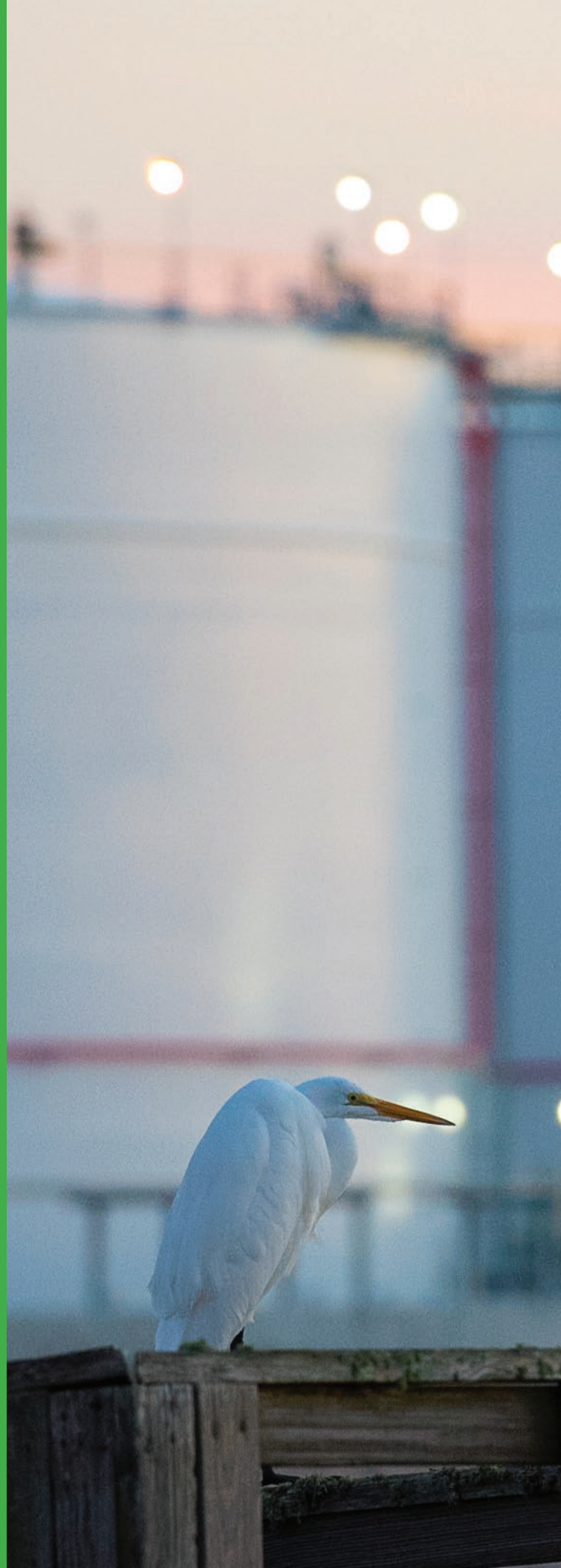
## Companies Valuing Nature

Dow and The Nature Conservancy are also working together with other leading companies and organizations, such as the World Business Council for Sustainable Development (WBCSD), to drive broad adoption of green infrastructure solutions. The WBCSD's Natural Infrastructure Working Group will work together and share ideas, which could build on the foundation of earlier Collaboration research and apply it at a larger scale with a broader set of visionary organizations.

The Collaboration had a major presence at this year's A Community on Ecosystem Services (ACES) Conference. Collaboration scientists and engineers presented on integrating the value of nature into business decisions through town hall sessions, presentations, posters and other networking opportunities. The conference links science, practice and sustainable decision making by bringing together the ecosystem-services community from around the globe. ACES 2014 brought together nearly 500 leaders in government, NGOs, academia, Native American communities and the private sector to advance the use of ecosystem services science and practice in conservation, restoration, resource management and development decisions. From the beginning of the Collaboration, it has been our hope that by sharing experiences and lessons learned, other companies will be inspired and have the tools to better integrate the value of nature into their decision-making.

## The Case for Green Infrastructure

Earlier this year, Neil Hawkins, Dow Corporate Vice President and Chief Sustainability Officer, and Glenn Prickett, The Nature Conservancy Chief External Affairs Officer, collaborated in authoring a chapter of the new book, *Turbulence: A Corporate Perspective on Collaborating for Resilience*. The chapter, titled, "The Case for Green Infrastructure," highlighted the work of both organizations in looking at hybrid solutions to traditional grey infrastructure challenges, including results and data previously featured in a joint white paper with Shell, Swiss Re and Unilever.





## Policy

As part of the air-quality project, the Collaboration team is working with counterparts from Dow Texas Operations and The Nature Conservancy's Texas Chapter to influence policy at the state level (Texas Commission on Environmental Quality) and at the federal level (U.S. EPA Office of Air Quality Planning and Standards). The end result that the team seeks is inclusion of the reforestation concept from the Freeport air pilot in the Texas State Implementation Plan for air quality, which would allow Dow and other companies the option to invest in reforestation alongside other traditional engineered measures, such as air scrubbers, to meet regulatory requirements.

In addition to the Brazil pilot modeling work that has direct policy relevance, the Collaboration has extended efforts to facilitate on-the-ground implementation of environmental policy. Within the Brazil pilot project, the Collaboration team worked with the local government in the city of Santa Vitória and the state government of Minas Gerais to streamline the implementation of the Forest Code and to enhance its environmental impact, in a way that could minimize the costs of compliance to SVAA / Dow while promoting conservation in the region. Conservancy scientists have developed a spatial analysis tool, LegalGEO, to aid the issuance of environmental permits, while simultaneously guiding the placement of legally required nature reserves based on well-founded conservation principles. To reduce delays and costs associated with environmental licensing, the team developed an online environmental registry system to host geospatial data, such as land cover and land tenure, necessary to implement the Forest Code.

Finally, the policy groups from both organizations continue to discuss how they can work together to achieve common conservation goals.



## Objectives for Year 4

| Objectives for Year 4   | Status |
|---|--------|
| 1. Finalize and publish Brazil pilot results.   | ●      |
| 2. To advance the development of the decision-support framework; continue development of the ESII Tool, including addition of more ecosystem services, testing, and validation of the tool. | ●      |
| 3. Continue to evaluate ways to leverage results from first two pilots by defining opportunities to bring ecosystem-services value into finance and other business processes at Dow.        | ●      |
| 4. Identify third pilot.  | ●      |
| 5. Incorporate the value of nature into Dow's next-generation approach to sustainability, including metrics, targets and goals.   | ●      |
| 6. Share Collaboration results with other companies to encourage them to integrate the value of nature into their business decision-making.   | ●      |
| 7. Continue to advocate jointly on policies that support ecosystem-related strategies and natural-infrastructure investments.   | ●      |

KEY: ● = In Progress ; ● = Complete

## Objectives for Year 5

1. Complete first version of the ESII Tool; publish business cases and roll out across Dow at a minimum of five sites; and begin testing with other companies.
2. Conduct third pilot that incorporates the value of nature into Dow's next-generation approach to sustainability.
3. Continue to evaluate the ways to leverage results from first two pilots by defining opportunities to bring nature's value into business processes at Dow.
4. Share Collaboration results with other companies to encourage them to integrate the value of nature into their business decision-making.
5. Continue to advocate jointly on policies that support ecosystem-related strategies and natural-infrastructure investments.



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