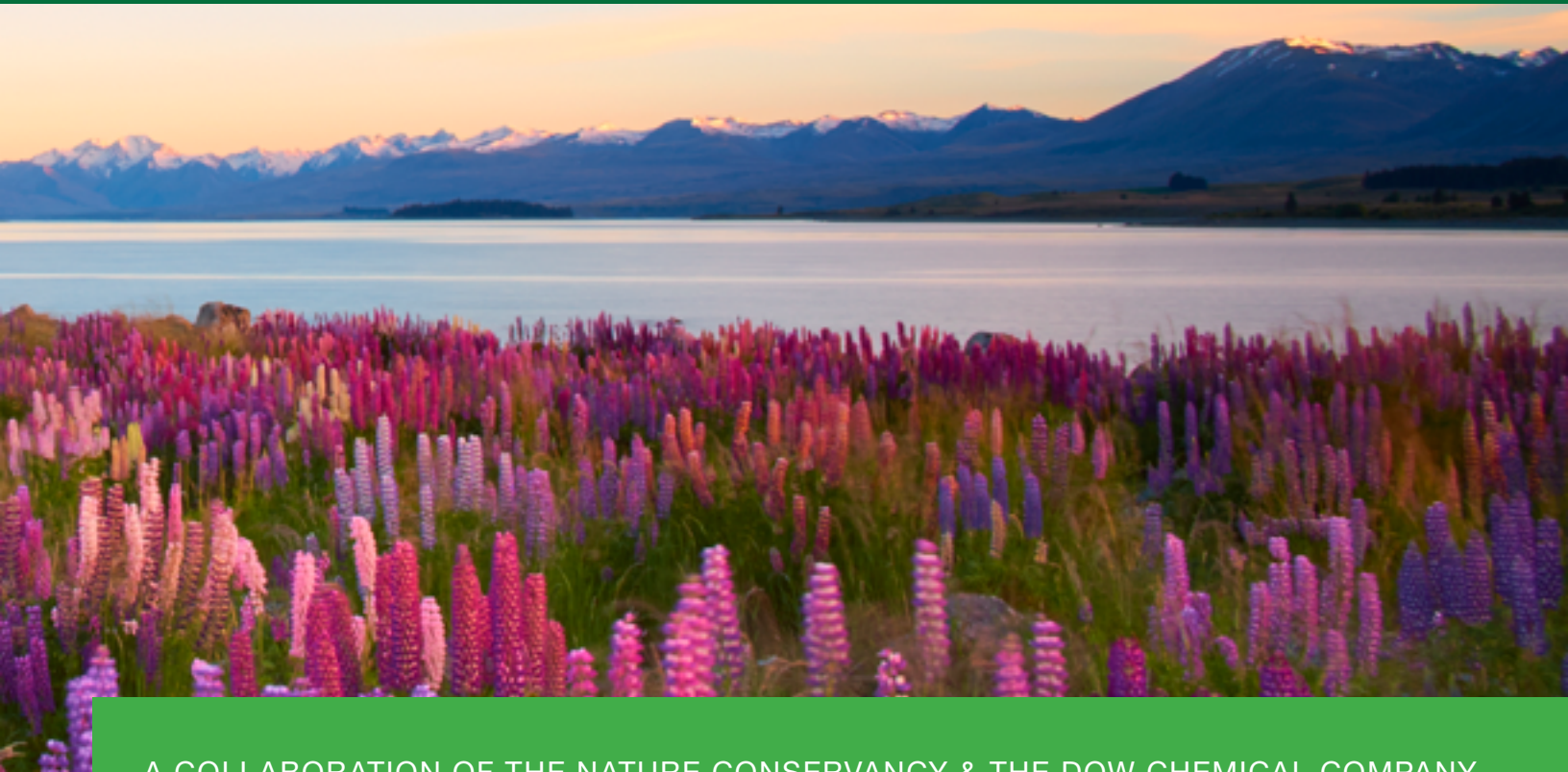


# Working Together to Value Nature 2017 Summary Report



A COLLABORATION OF THE NATURE CONSERVANCY & THE DOW CHEMICAL COMPANY





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# Our Commitment

The Nature Conservancy and The Dow Chemical Company set out in 2011 to demonstrate that integrating the value of nature into business decisions can lead to better business and conservation outcomes. Six years later, the Collaboration – at the forefront of innovative nature-based solutions – has produced extensive research and developed new tools to demonstrate how a company like Dow can include nature in its business operations. Our joint commitment to this new way of doing business is quickly becoming ingrained in the Dow corporate culture.



# At the Forefront of Bringing Nature into Business Decisions

For the past seven years, The Nature Conservancy (“TNC”) and The Dow Chemical Company (“Dow”) have been working side by side to advance our understanding of the value of nature and carry these findings into the business setting. Our hypothesis is: Investing in nature will lead to conservation and business benefits. It is a new way of thinking, rooted in Dow’s commitment to leading on sustainability and The Nature Conservancy’s desire to accelerate the private sector’s adoption of nature-based solutions.

As the TNC-Dow Collaboration moved into its second phase at the start of 2017, we shifted from conducting analyses and pilots to implementing projects and spurring culture change with the goal of incorporating consideration of the value of nature throughout Dow and across other companies. The Collaboration team is visiting Dow sites around the world to conduct Nature Goal Workshops and help identify projects where deliberately taking nature into account in making business decisions can be beneficial. We are also pleased that a peer company has expressed interest in the Nature Goal concept and is working with the Collaboration team to determine how it might be applied within their organization.

Dow continues to make steady progress and is on pace to achieve its goal of \$1 billion in business value from projects that are better for nature. Much of the focus of the Collaboration continues to be identifying new types of projects which fit the Nature Goal framework, while scaling previously identified projects.

The Ecosystem Services Identification and Inventory (ESII) tool, which was developed by the Collaboration team in conjunction with Ecometrix Solutions Group (“ESG”) in the first phase, continues to gain momentum as companies seek to identify projects that are better for nature. This year, we had discussions with more than a dozen companies and organizations that are investigating or piloting the use of ESII in their operations.

As in the first phase of the Collaboration, a key priority now is to share our results publicly. The Annual Report complements the other channels we use to communicate the outcomes of our Collaboration. We are particularly interested in sharing our work with other companies as the focus on nature-based solutions continues to evolve in the corporate sector.

We welcome your feedback on our work to date and thank you for your interest in showing that what is better for nature can also be better for business.

Sincerely,

**Neil Hawkins**  
Corporate Vice President, EH&S,  
and Chief Sustainability Officer  
The Dow Chemical Company

**Glenn Prickett**  
Chief External Affairs Officer  
The Nature Conservancy







# Our Collaboration – Goals & Milestones

## Goals & Objectives

The Collaboration between The Dow Chemical Company (Dow) and The Nature Conservancy (TNC) has always been motivated by the idea that considering and integrating the value of nature into business decisions can lead to better business and conservation outcomes. Since the start, the Collaboration has been at the forefront of innovative nature-based solutions to business challenges.

Our Collaboration is an example of how organizations from different sectors can work together to further conservation and business outcomes. Our intention is that this Collaboration and its results will serve as a model for other companies to replicate globally.

Entering the second phase of the Collaboration at the start of 2017, the focus of the Collaboration shifted from building the knowledge base of nature's value to broadly sharing our findings with other private companies, the public sector, and other NGOs. Following this knowledge sharing, a key objective for Phase Two is to advance a corporate engagement effort for promoting the adoption of nature-based solutions as best practices and industry standards throughout individual corporations.





# 2017: In Focus

In 2017, the Collaboration continued to focus on embedding deliberate consideration of nature's value into Dow's culture and business practices.

## Site Visits & Workshops

The Collaboration held several Nature Goal Workshops during Dow site visits in 2017. In July, the collaboration team traveled to Europe, where they visited five sites, presenting the Nature Goal in a large site-wide meeting at each location. The team conducted Nature Goal workshops at four sites and led a detailed discussion about innovation at the fifth site, Dow's Europe, Middle East, and Africa headquarters in Switzerland.

The first site visit was to Schkopau, Germany, where the Collaboration team held a workshop reviewing four potential Nature Goal projects. The team then visited Stade, Germany, where they reviewed 12 potential Nature Goal projects. In Horgen, Switzerland, the team met with leadership from Dow's European headquarters and brainstormed how to better incorporate R&D projects in the Nature Goal process. The team identified current drivers for environmentally-friendly products with robust markets and some of the challenges associated with developing these types of products broadly. This discussion led to the team's decision to create a separate innovation screen to support the Nature Goal process for R&D projects.

During the second week of the trip, the team returned to one of the Nature Goal pilot sites in Terneuzen, Netherlands. At Terneuzen, the team reviewed new Nature Goal concepts and followed up on natural capital incentives and natural capital projects currently underway at the site. The Collaboration team is planning to return to Terneuzen in 2018 to help advance these projects to the next stage.

Finally, the team visited Barry, Wales in the United Kingdom, which is a legacy Dow Corning Corporation (DCC) site<sup>1</sup>. The team discussed the differences between traditional Dow sites and legacy DCC sites, focusing on how the DCC sites are often more energy-intensive than the typically water-intensive Dow sites. The team also reviewed potential Nature Goal projects related to new Dow products, which enable more efficient water use.

Across the five sites, we identified five projects that could contribute more than \$8 MM in Nature Goal value in 2017 and identified dozens of other potential projects for further evaluation. The collaboration team plans to return to Europe to follow up on key opportunities in the fall of 2018.

In late November, the Collaboration team conducted their first Nature Goal workshop with a business unit, Dow's Industrial Solutions (DIS) group. During this workshop, the two teams explored ways to bring innovative projects into the Nature Goal process by reviewing 32 project ideas. From this discussion, the DIS team agreed to scope and prioritize the concepts and to set specific Valuing Nature goals for 2018.



Nature Goal pilot site in Terneuzen, Netherlands



Legacy DCC site in Barry, Wales

\* Dow Corning Corporation was a joint venture established in 1943 between Dow Chemical and Corning Inc. From 1943–2016, it operated as a separate entity distinct from Dow. On June 1, 2016, Dow completed the strategic ownership restructure of Dow Corning, becoming 100 percent owner of the successful silicones business and has since been integrating the former Dow Corning sites into Dow operations.



## Tools and Science

In last year's Annual Report, the Collaboration discussed three tools that were available or being developed to incorporate data on the value and benefits of nature into Dow's implementation of its 2025 Valuing Nature Goal. These three tools included: (i) a screening tool to identify Dow projects that likely would have a significant impact on nature; (ii) a decision tool (or scorecard) for direct comparison of project alternatives across both financial and environmental metrics; and (iii) the ESII Tool, used to measure a project's expected impacts on nature.

In 2017, the Collaboration conducted the initial rollout of both the screening tool and the decision tool, and collected feedback on both tools from the early users. The Collaboration presented all three tools to Dow employees at six workshops at different Dow sites this past year. Based on feedback from these initial rollouts, the Collaboration team spent time refining and improving the tools. The team continues to build a cadre of champions across Dow for these new tools.

### Screening Tool

The Collaboration developed a working definition of nature to more explicitly drive Dow's implementation of the Nature Goal. This definition is rooted in decades-old literature on natural capital, ecosystems, and ecosystem services. As a Collaboration, we developed the following definition:

Nature is the Earth's collective inhabitants and nonliving environments interacting as functional ecosystems and providing services such as clean water, clean air, and healthy soil.

With this working definition established, the Collaboration refined the screening tool to better reflect the four key elements of nature highlighted in the definition: (i) an ecosystem's overall functioning; (ii) clean water; (iii) clean air; and (iv) healthy soil. The screening tool now includes one question related to each of these elements and is designed to identify projects at Dow that have a significant impact on at least one of the four elements. In addition, the screening tool now promotes the consideration of nature-based solutions in Dow projects. Dow rolled out this updated screening tool at the end of 2017.



## Scorecard

In 2017, the Collaboration also piloted an initial version of the scorecard. The feedback from this pilot suggested that it was difficult for project managers to easily and quickly input the necessary information, and that it did not readily allow for comparisons across Dow sites. To address this feedback, the Collaboration is working on creating a second version of the scorecard that streamlines both the user's initial data entry and the output data.

The second version of the scorecard will clearly translate a proposed project's impact on nature into a distinct metric, or set of metrics, that quantify their value. This metric will be complementary to the financial metrics that are traditionally used to evaluate proposed projects, (e.g. net present value and return on investment), and should be easily comparable across proposed projects. In updating the screen, the Collaboration is reevaluating how environmental resources, such as land and water, are currently assessed within Dow's accounting system. From this reevaluation, the Collaboration will propose an alternative assessment of these environmental resources that better incorporates their natural value into Dow's (and industries') standard financial valuation assessments.



## ESII Tool: Uptake at Dow and Beyond

A key achievement of the Collaboration in the first phase was the completion of the ESII Tool, designed to rapidly provide data about the various ecosystem services delivered by nature on a business site.

The tool stands apart from other ecosystem service tools designed for business because of its ease of use, modeling of multiple ecosystem services on a site scale, and outputs in both relative percent performance and engineering units. Training to use the ESII Tool software is quick and easy and allows the user to collect ecological data, which the tool processes to provide information on ecosystem services. Providing outputs in standard units of measure (e.g., gallons of stormwater controlled) enables business users to evaluate the data in absolute terms as well as to translate them from engineering value into dollar values, which can be incorporated in traditional financial models to inform business decisions.

In 2017, Dow continued to use the ESII Tool to analyze scenarios for many of its Nature Goal projects.

Throughout the year, TNC and ESG, the developer and exclusive licensee of the ESII Tool, also continued to grow the user base for ESII. TNC and Dow presented the ESII Tool at the Sustainable Brands conference in Detroit. In addition, all three organizations continued working with other companies and stakeholders to increase the penetration of the ESII Tool, with the hope that it will serve as a point of entry for groups trying to understand nature's value.

### Ecosystem Services Modeled by ESII Tool:

- Water Provisioning
- Air Quality Control
- Climate Regulation
- Erosion Regulation
- Water Quality Control
- Water Temperature Regulation
- Water Quantity Control
- Aesthetics



## Company Engagement

In July 2017, TNC had a call with Praxair, Inc., one of the world's largest industrial gas companies, to discuss the Collaboration and Dow's Nature Goal. Praxair had learned of the concept and asked that we set up a meeting with Dow.

On November 14, 2017, Dow hosted a full-day session to review the Nature Goal and its implementation at Dow. Following the meeting, Praxair expressed continued interest in the Nature Goal and the value of nature. The Collaboration team will continue the discussion with Praxair and looks forward to sharing this concept with other companies.

## Challenges & Opportunities

Although the project has made strong progress in 2017, there have been some challenges as the team seeks to accomplish the Collaboration's objectives. The last year has been one of change at Dow, as it is in the midst of one of the largest corporate mergers in history. The merger has forced us to redefine the scope of the Nature Goal as Dow finalizes its upcoming split of the company into three distinct companies. The post-merger integration activities are expected to continue during 2018.

Another challenge is to define exactly what a "nature project" is, and how it is different from sustainability or efficiency projects. The Collaboration team's reevaluation of the scorecard is intended to address this confusion.

As the Collaboration moves toward engaging other companies in the Nature Goal, it will be helpful to strengthen the Collaboration's own public communication regarding how this engagement helps both TNC and Dow. As this is one of the core goals of the Collaboration, we are looking to identify additional benefits that can be quantified, reported, and potentially tied to Dow's internal metrics. For example, the team wants to increase transparency and external reporting of progress made toward the \$1 billion Nature Goal.



# Looking Ahead to 2018

In 2018, the team plans to increase the number of Dow sites it visits. In March 2018, the TNC Collaboration team, along with Brazil and Argentina TNC and Dow staff, will visit several Dow sites in those two countries. The Collaboration team will also hold a Nature Goal Workshop at a DCC site in Carrollton, Kentucky and participate in a return trip to Europe to conduct follow-up visits at several Dow locations. Finally, the Collaboration team plans to complete a return trip to Freeport as well as first time visits to other key Dow sites across the US Gulf Coast region.

The Collaboration team will continue to work with Dow business units to develop a scientifically-defensible yet efficient method of introducing the Nature Goal into Dow's innovation processes. The team will continue to build on the ecosystem services thinking that has been promoted in the capital project space to inform new product development at Dow.

We will also continue to seek venues in which to share information about the Collaboration efforts and the Nature Goal. Collaboration team members are active participants in the TNC Business Council Working Group on Natural Infrastructure, which is composed of seven companies that are working with TNC to understand and quantify the benefits of natural infrastructure in a variety of implementations. In addition, the Collaboration plans to be an active participant at the biannual conference of ACES: A Community on Ecosystem Services in Washington, DC, in December 2018.

The Collaboration is looking forward to sharing continued progress in promoting and implementing the Valuing Nature Goal across Dow in the year ahead. We are also excited to continue to publicly share case studies and lessons learned regarding both challenges and successes of applying nature-based solutions in a business setting.





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