



Town of Elsmere, DE

**Digital Stormwater Program
Compliance Management Software
Proposal - Full Annual Subscription**

September 21, 2021

Submitted to:
Diana Reed, Town of Elsmere, DE

Overview & Goals

Dear John,

In today's world, a cloud-based digital information system is the nerve center of stormwater program management and compliance.

The Town of Elsmere knows that an enterprise stormwater management system is the easiest way to centralize information about assets, establish baselines to identify opportunities, conduct inspections, respond to requests for information and verify program performance for compliance.

But keeping a program running and demonstrating compliance without a modern cloud-based system is time consuming for staff, requires building custom applications and compiling information from systems that are not integrated.

Establish a world-class stormwater program that keeps your team free to focus on what matters with 2NDNATURE's web-based, automated approach.

Rely on 2NDNATURE to complete reports and monitor program performance all in one place.

Stormwater is an important part of the Clean Water Act. We appreciate the opportunity to help Elsmere manage your stormwater program. We have carefully considered your requirements and enjoyed getting to know you.

Sincerely,

A handwritten signature in black ink, appearing to read "JY", with a stylized flourish extending from the end.

Jason Yoho
Chief Commercial Officer
2NDNATURE Software

Why Us?

Founded in 2016, 2NDNATURE Software helps stormwater program managers across the country use the power of the cloud to run a performance-based program. We put your assets at the center of your service delivery model so you can focus on your customers. Our flexible, scalable, and robust platform was designed to streamline your approach, saving you time every step of the way.

At the core of the 2NDNATURE platform is science-based modeling developed over a decade. We hold our science to the highest open-science standards. We publish our methods and models in peer-reviewed scientific journals. That means when you want answers regarding your program's performance, are running models for planning and are submitting annual reports or responding to information requests, you have confidence in your data and it is defensible. 2NDNATURE truly is the gold-standard in stormwater.



The key to success and getting your time back by using the 2NDNATURE platform is getting going quickly. Our customer success team members are experts in GIS and have years of experience working in the field directly with stormwater program managers and staff.

Our customer success team is ready to answer any and all questions the you have about how to get your implementation from zero to success.

Together a Successful Proposal

COLLABORATION ON A LIVING DOCUMENT

This proposal is a living document in a dynamic format that allows you to engage with it directly. The comments button is enabled so that you can provide feedback and ideas as we collaborate together to produce a proposal that you are confident in.

WEB PORTAL

This is a web-based document that is accessible through your custom Town of Elsmere mini-site located below. Your mini-site is a central repository for documents and resources to help gain support for your proposal. [Click here](#) or the image below.

SECURE

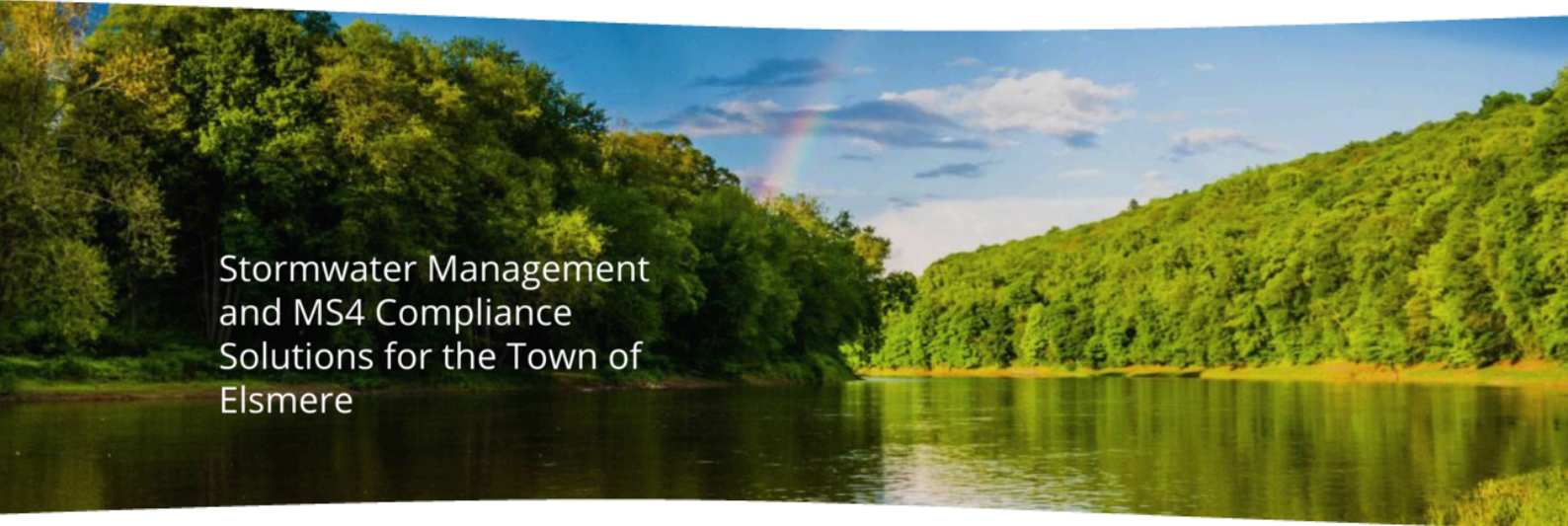
Your mini-site is password protected. Share this proposal link with contributors and approvers, all they have to do is quickly register to access the mini-site.

DOWNLOAD AND PRINT

This proposal can be downloaded if you require a PDF version to share internally.

PROPOSAL APPROVAL

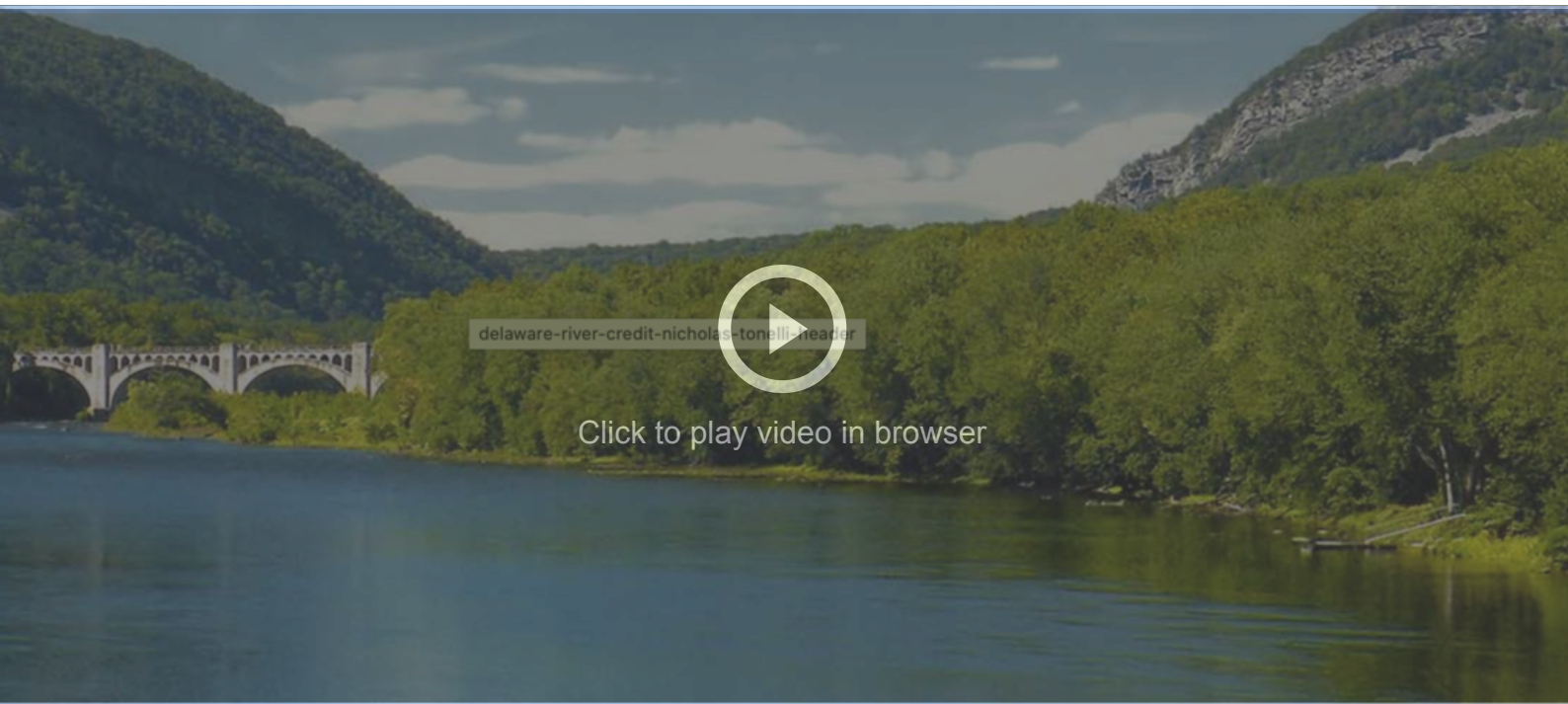
If you are the final approval to execute this contract, great. Also we can add multiple approvers. Once digitally signed, the proposal can no longer be changed online.



Stormwater Management
and MS4 Compliance
Solutions for the Town of
Elsmere

What We Offer

2NDNATURE is an enterprise cloud stormwater management platform. Purpose-built for stormwater managers, 2NDNATURE incorporates a comprehensive suite of applications for managing stormwater assets, benchmarking clean water program effectiveness, and streamlining regulatory compliance.

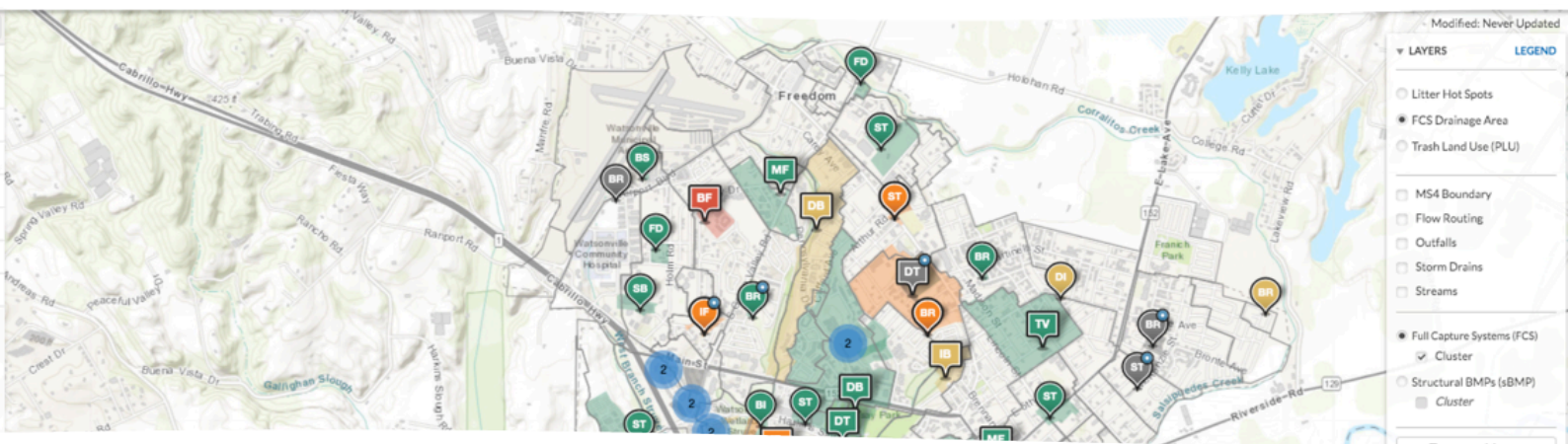


AUTOMATED COMPLIANCE REPORTING

2NDNATURE transforms program data into compliance-ready insights to simplify management of NPDES compliance calendars. With the push of a button compliance reports and supporting data are available for review by regulators. By automating the compliance reporting process, 2NDNATURE eliminates the countless hours spent manually compiling annual reports.

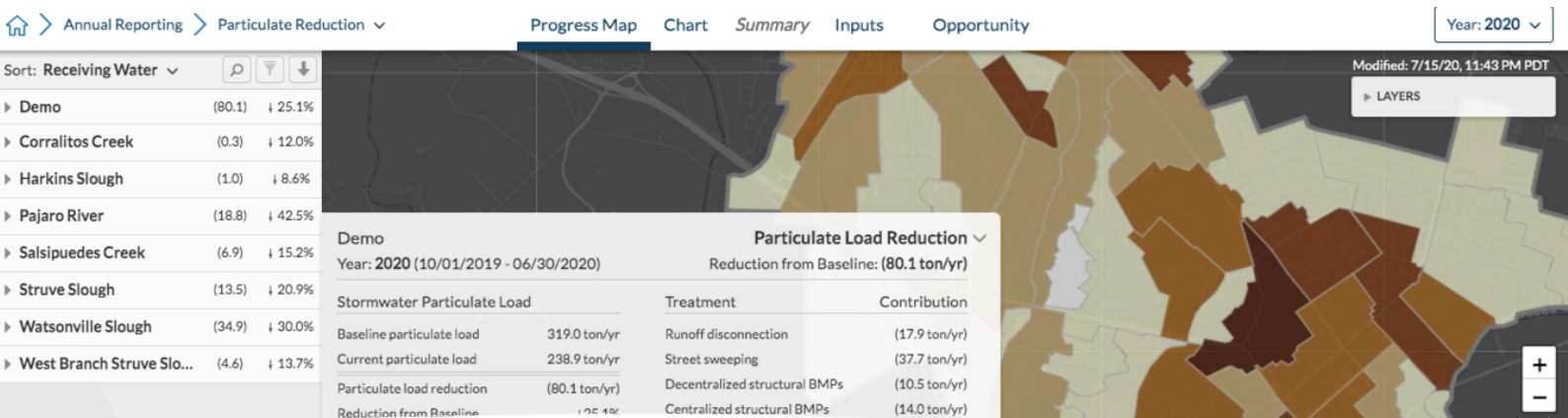
CLEARER RESULTS

The platform quantifies progress and helps plan where future improvements will deliver the greatest compliance impact and community benefits. With one source of the truth to manage stormwater data and information, organizations will break down silos that typically hamper the holistic management of their stormwater program.





STANDARDIZED FIELD APPS

2NDNATURE empowers stormwater program managers to conduct standardized, mobile-enabled field inspections without requiring extensive staffing resources, paperwork or manual data entry.



SUPPORT OF THE ELSMERE PERMIT

Below is a section by section crosswalk of the Elsmere MS4 permit directly into the 2NDNATURE platform. This crosswalk is located in your [Solution Guid](#)

<div>  <div>Town of Elsmere Permit Crosswalk</div>  </div> <div> Detailed cross-walk of the Town of Elsmere's permit requirements indicating functionality, information management and reporting features which exist in the 2NDNATURE commercial stormwater management platform (www.2ndnaturewater.com). (Prepared Aug 2024.) </div>				
Section	Requirement	2NDNATURE	2NDNATURE Platform Data System	2NDNATURE Advantages
II.A.8	Mapping & Spatial Data	✓	Interactive geospatial platform with live spatial data. Includes layers such as parcels, land use, drainage basins, outfalls, receiving waters, stormwater infrastructure, structural BMPs, and MS4 boundary.	Embedded data layer sets the foundation of the centralized geospatial management system. Sources can be linked to existing Esri ArcGIS Online Feature Services.
II.A.1	Public Education/Public Involvement	✓	Templatized stormwater program website customized to the local community. Training documentation and relevant educational resources can be made available to City staff, local businesses/operations and the community. Data can be pushed to template open data websites such as ArcGIS Dashboards and Hub.	Website tailored to local challenges and community priorities. Directly pulls relevant data for public consumption and builds public support and engagement for your program. Spatial priorities can help determine where education and outreach efforts are most needed.
II.A.2	Illicit Discharge Detection and Elimination	✓	Rapid, standardized illicit discharge inspection reports with date, location, violation documented. Illicit discharges can be recorded and associated with outfall inspections, commercial & industrial facilities and active construction sites. Dry weather screening mobile inspection forms exist to make outfall sampling and documentation a breeze in the field. Stormwater infrastructure, outfalls, industrial facilities, and receiving waters are all available in a dynamic map.	Geospatial framework and embedded drainage network increases source tracking efficiency. Prioritization is driven by spatial context sensitivity of receiving water to which areas drain. Automated record keeping highlights potential and repeat violators. Single data entry promotes efficiency in the field.
II.A.3	Stormwater Management During Construction	✓	Construction project meta-data managed by project and location: Includes phase, schedule, responsible parties, design plans, permitting documents, stormwater requirements, etc. Quickly assess site compliance, store/print inspection results, obtain onsite signatures, maintain records, escalate enforcement action and track workflows.	Comprehensive mobile inspections and automated inspection reports increase efficiency by consolidating record tracking, minimizing manual data entry and automating inspection and enforcement compliance calendars.
II.A.4	Post-Construction Storm Water Management	✓	Geospatial database of new and redevelopment projects across the MS4. Includes full inventory of construction and post-construction permit requirements, enforcement actions, and locations/types/condition of any structural BMPs on site. Standardized, mobile inspections synced directly to cloud. Data management system is used to track operations and maintenance agreements, structure maintenance, and structure performance over time. All projects and structures are tied to ownership contact information.	Rapid, standardized mobile inspection forms and comprehensive inspection and enforcement history minimize data input, automate workflows and streamline program data management. A standardized structural BMP typology allows the software to automatically model the water quality benefit of green infrastructure in all the new and redevelopment projects.
II.A.5	Good Housekeeping	✓	Geospatial database of mapped municipal facilities, catch basins, and stormwater assets with mobile applications and standardized protocols to inspect facility BMPs, track compliance, and measure overall program effectiveness. Mapped street sweeping routes and cleaned catch basins are modelled to estimate the annual pollutant reduction from sweeping and maintenance activities.	Automated record keeping and geospatial accounting facilitate efficient asset management and prioritization of municipal maintenance and facility needs. By providing information about street sweeper types, users are able to estimate the water quality benefit from sweeping and locate priority areas to increase sweeping and other source control methods.
V.F	Annual Report	✓	Annual reporting includes all required inventory and inspection data, customized summaries and supporting histories required for individual and regional permit compliance.	Digital automated annual reporting in map, graph and summary formats can be completed at the click of a button, drastically reducing effort of manual annual report compilation. Program effectiveness is quantified and tracked automatically. Permittees grant regulators direct digital "read only" access to comprehensive data records, increasing transparency and minimizing subjectivity.
II.B.1	Pollutant Minimization Plan	✓	Automated hydrologic modeling comes standard in the platform. Local rainfall, land use, soils, and impervious data is pulled to estimate average annual stormwater loads on a catchment scale. Load reductions are estimated from implemented green infrastructure, and opportunity maps are created to locate high priority areas within the City.	Hydrologic modeling methodology has been scientifically proven and peer-reviewed in multiple scientific journals. Models run automatically on the web with minimal user input. Model outputs allow for quick identification of new priority watersheds and hotspots within the jurisdiction.

INTEGRATED WITH ESRI MAPPING TECHNOLOGY

2NDNATURE is integrated with Esri ArcGIS, the world's leading geospatial mapping platform. Through this integration, 2NDNATURE manages all stormwater program elements atop a centralized geospatial framework. Seamless integration with your existing Esri systems and tools maximizes single data entry and improves data quality. Aggregation of program data by urban drainages allows spatial modeling and analysis to iteratively map where progress has been achieved and where the greatest opportunities to protect local receiving waters exist.



OPEN SCIENCE AND OPEN DATA

2NDNATURE supports the gold-standard in science and data: open-science is peer-reviewed and science journal published science, open data is a commitment to provide you with functions to easily export all your data.

Proposed Implementation

2NDNATURE is proposing a implementation plan for the City of Elsmere focused on your below permit section priorities:

1. Post-Construction (Structural BMPs)
2. Pollution Prevention (Municipal Maintenance)
3. Remainder of permit
4. Annual Reproting


The goal is to have the permit fully implemented into the 2NDNATURE Platform and to use it to submit the MS4 compliance annual report for the 2021/2022 year.

The implementation is designed to rapidly demonstrate to the Town of Elsmere, DE the utility and value of the 2NDNATURE platform by bringing program areas into the 2NDNATURE platform to enable operations and planning capacity and to capture compliance credit.

NEW PERMIT REQUIREMENT SATISFACTION


As part of the PRP, the permit requires the identification of TMDLs and the pollutants of concern. Permittees will identify targeted controls, BMPs, or other Department approved methods to address these pollutants. The PRP will also include information on existing and proposed storm water management strategies, general information on BMPs currently employed and proposed to be implemented, modeling or other quantification methods describing BMP effectiveness in reducing pollutant loads, and a schedule for BMP implementation (if needed). This requirement is met by implementing 2NDNATURE's structural BMP Module.

Hydrologic modeling methodology has been scientifically proven and peer reviewed in multiple scientific journals. Models run automatically on the web with minimal user input. Model outputs allow for quick identification of new priority watersheds and hotspots within the jurisdiction.




Annual Reporting

Prepare and submit program records to your regulator digitally




Strategic Planning

Build a project pipeline and align planned projects with stormwater program goals




Structural BMP

Inspect and manage structural stormwater assets




Construction

Inspect and manage construction site runoff control program




Low Impact Development

Manage and track post-construction (re)development compliance program




Trash

Inspect and manage urban litter reduction program




Municipal Maintenance

Inspect and manage catch basin cleaning, street sweeping and other municipal maintenance requirements




Industrial/Commercial

Inspect and manage private land manager compliance program




Illicit Discharge

Inspect and manage dry weather flow and IDDE program




Public Engagement

Make clean stormwater solutions actionable to your community



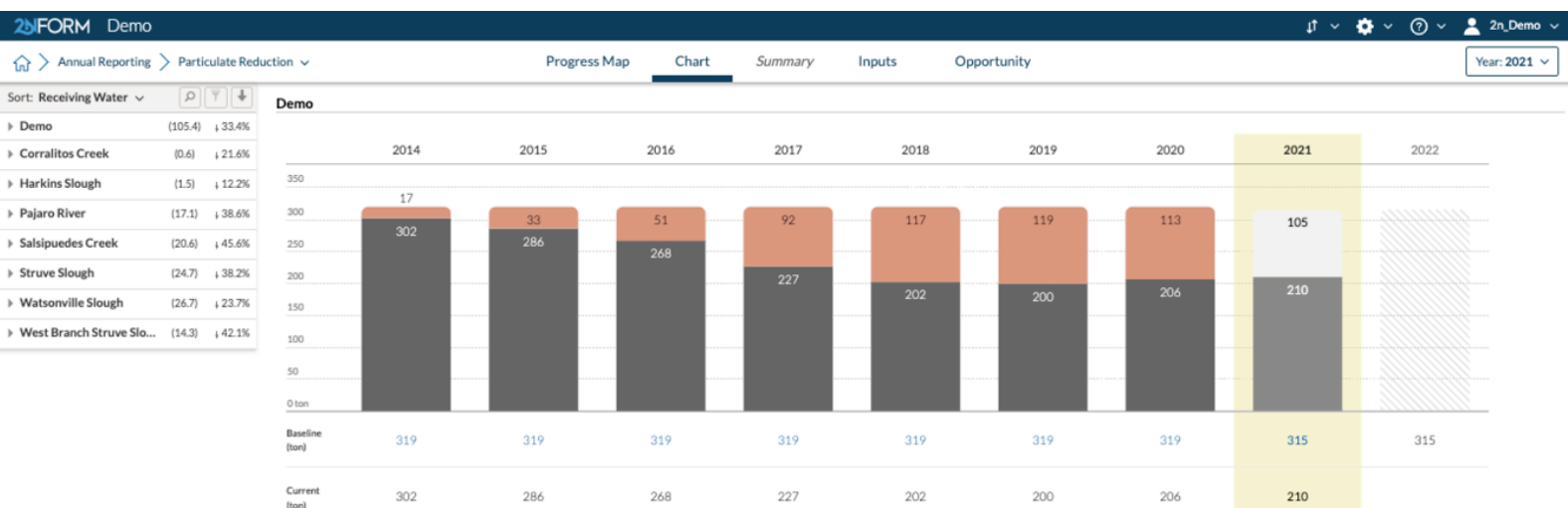
Urban Outfall Monitoring

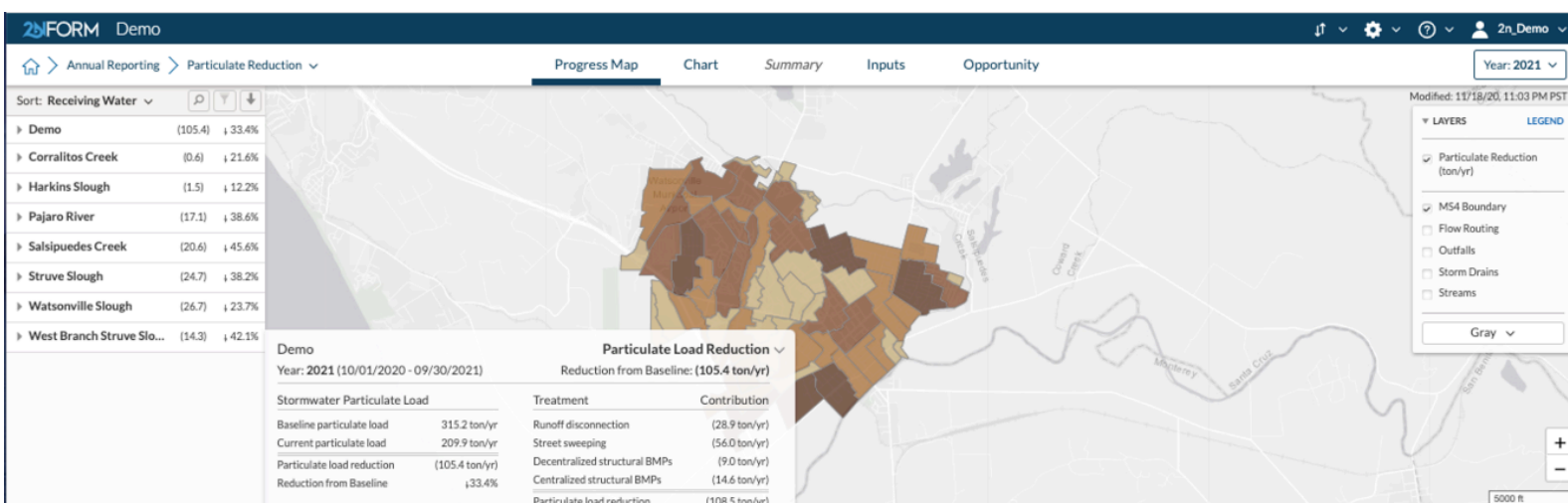
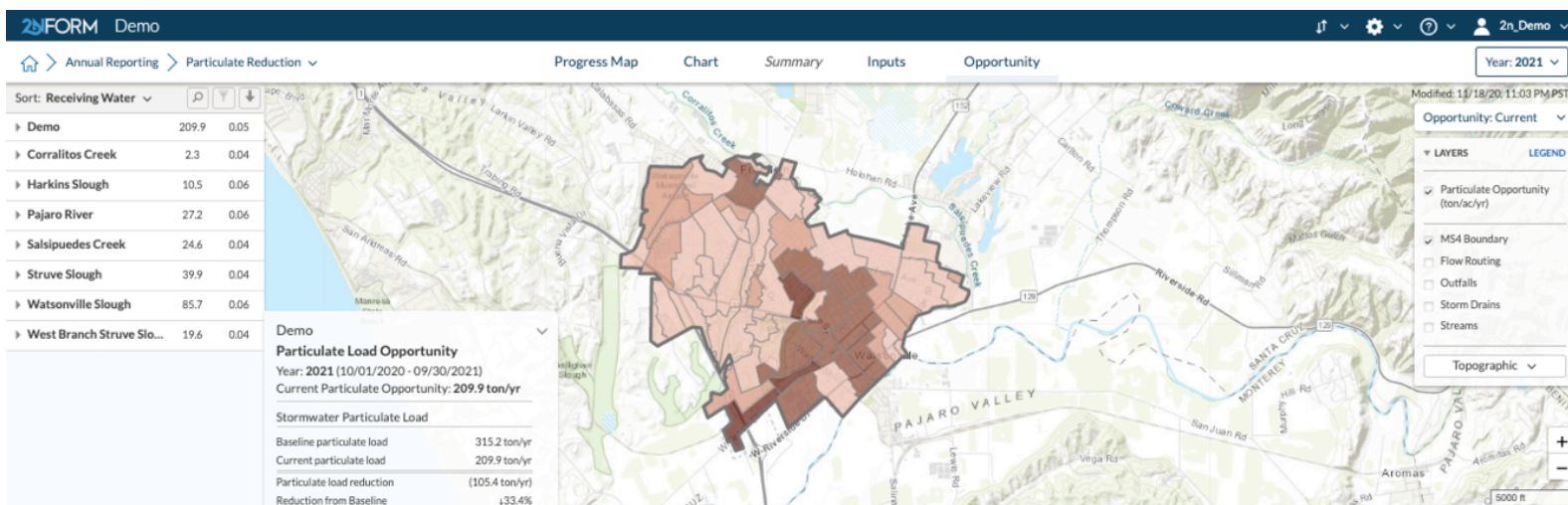
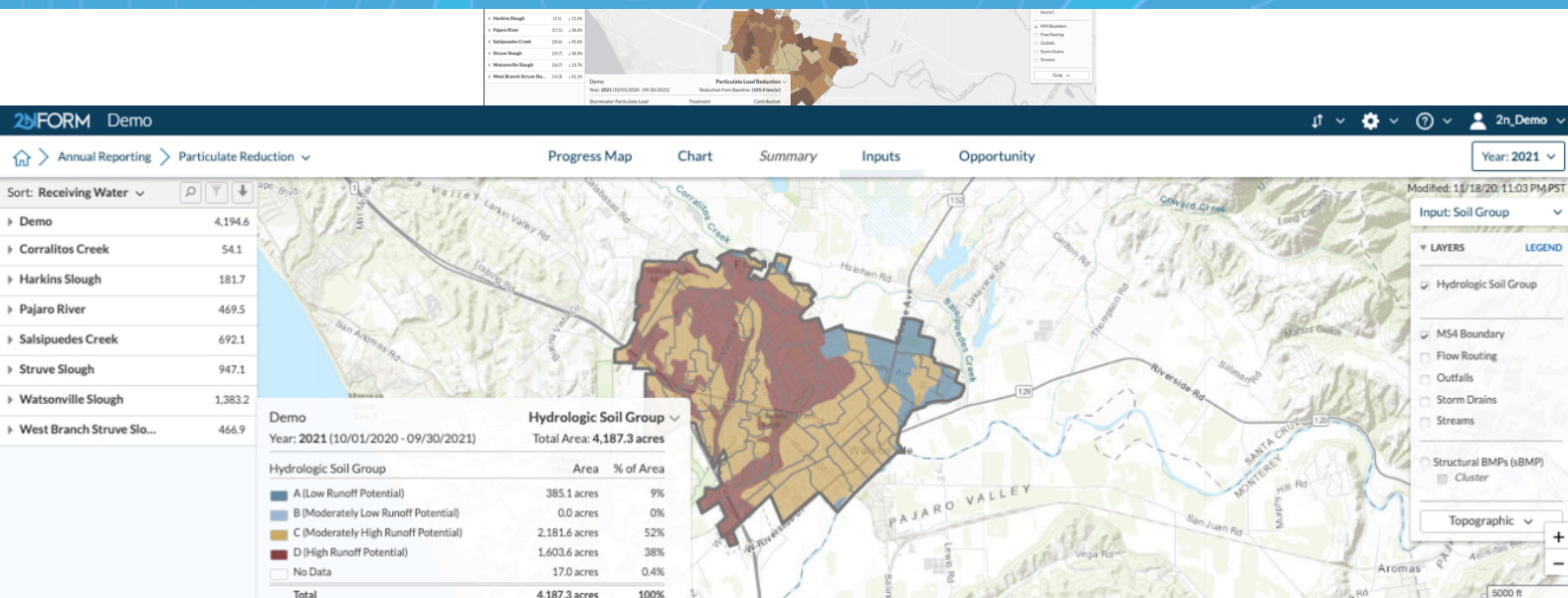
Manage water quality monitoring program results



Asset Management

View, manage and prioritize short and long term program investments





Your Investment

Subscriptions are designed to meet your needs by reducing risk, ensuring quick implementation, and matching budget realities. The annual license cost is an all-in price with no additional costs for unlimited users, change-orders, maintenance, support, training or services.



2NDNATURE will assign a Technical Account Manager (TAM) to manage training, implementation and support. Your TAM will develop a detailed list of requirements and coordinate the resources to bring your stormwater program into the 2NDNATURE platform to produce baseline maps, locate assets, and establish program goals.

Description	Price	Qty	Subtotal
Elsmere Annual Subscription 2NDNATURE Software MS4 Program Effectiveness, Annual Reporting and Compliance Management Platform annual subscription.			\$3,599
Total			\$3,599

Testimonials

“2NDNature is a valued strategic services partner for our National Stormwater Platform. They maintain and ensure the one-stop, source of truth, regulatory compliance system throughout the entire stormwater development and management lifecycle. 2NDNature has helped us create greater visibility and transparency with all of our stakeholders around our performance metrics.”

PETE LITTLETON SENIOR OPERATIONS MANAGER | CORVIAS



“Yavapai County AZ is a rural county with unique program and compliance requirements. 2NDNATURE was up and running within weeks. Out of the box the platform satisfied most of our permit requirements. The platform is highly flexible and adaptable and they worked with us to quickly tailor it to our unique needs.”

**TONY ANGUIERA STORMWATER ENGINEER | YAVAPAI COUNTY ARIZONA
FLOOD CONTROL DISTRICT**

"2NDNATURE Software greatly improves opportunities for California State Water Board staff to communicate with our permit holders on permit requirements and reporting expectations. As the regulator, we can quickly and easily see what our permit holders want us to see about how their programs are performing. The result is fewer documents for permit holders to submit under separate cover, and less burdensome requests for follow-up documentation"

DOMINIC ROQUES REGIONAL BOARD | CALIFORNIA STATE WATER BOARD

Our Team



NICOLE BECK
FOUNDER, CEO PHD

Nicole Beck has a PhD in aquatic chemistry and a career mission to bring science to decision makers. She saw the opportunity to build science-based field protocols and analyses into software tools.



JASON YOHO
CHIEF COMMERCIAL OFFICER

Jason believes technology enables superior value in impact markets and as such he is responsible for defining and delivering the commercial strategy, growth and profitability of 2NDNATURE.



MAGGIE MATHIAS
CHIEF OF PRODUCT

Maggie leads the development of the product vision and strategy to translate 2NDNATURE's science into user-friendly, intuitive software for our customers.



NAT EVATT
CHIEF TECHNOLOGY OFFICER

Nat leads the 2NDNATURE development team driven by a strong belief that the innovative application of technology and coding can be used to manage environmental systems more sustainably.



GARY CONLEY
CHIEF SCIENTIST

Gary leads applied research to develop methods that turn data into actionable knowledge, improve watershed stewardship, and reduce the costs of clean water.

Signature

Executed on the dates set forth below by the undersigned authorized representative of Town of Elsmere, DE and 2N to be effective as of the Effective Date.


2021-09-21 11:46:13 (ADT)

John Hansen
Account Executive
September 21, 2021


2021-09-21 11:40:41 (ADT)

Diana Reed

September 21, 2021

