Integration and Application Network
REPORT CARD

2020

An annual reflection on social impacts, ecological outcomes, and partner engagement.
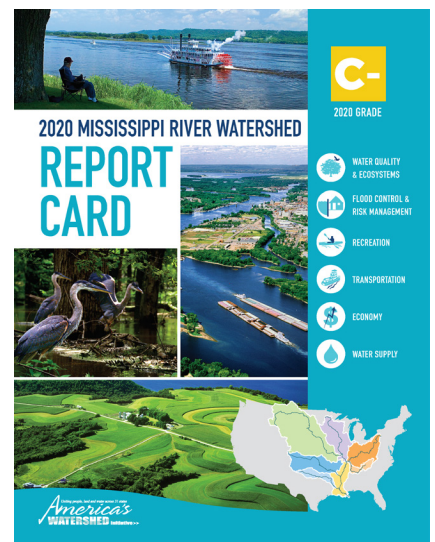
Highlights from 2020

U.S. Coral Reefs are in fair condition, but vulnerable to further decline

On November 10, 2020, IAN held a press event with NOAA'S Coral Reef Conservation Program to launch the national coral reef status report. Years in the making, *Coral reef condition: a status report for U.S. Coral Reefs* (https://ian.umces.edu/publications/coral-reef-condition-a-status-report-for-u-s-coral-reefs/) synthesizes data from four categories (corals & algae, fish, climate, and human connections) to determine the health of Pacific and Atlantic coral reefs. The report is designed to be accessible to the general public and policy makers, using color-rich visuals and descriptive text. Nine jurisdiction-specific coral status reports were published prior to this national report. Overall, U.S. coral reefs are in fair condition, vulnerable to further decline, and climate change is the main global threat to all reefs, regardless of if they are in populated or remote areas.
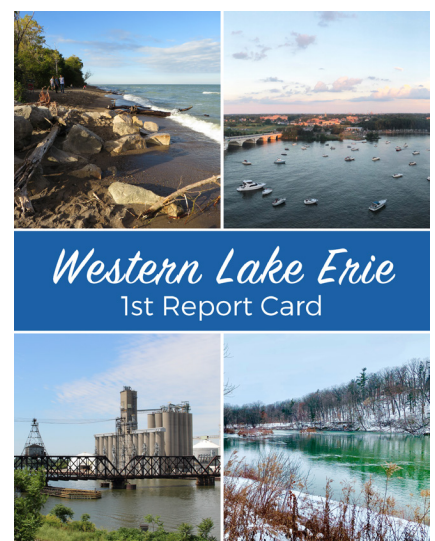
2020 Mississippi River Watershed Report Card released by IAN and America's Watershed Initiative

The 2020 Mississippi River Watershed Report Card is an updated and revised version of the 2015 Report Card. The 2020 Mississippi River Watershed Report Card includes several improved indicators and analysis methods for water quality in: Water Quality and Ecosystems; Flood Control and Risk Management; Transportation; and Water Supply. These new indicators improve our understanding of key issues and concerns in the watershed. The Mississippi River Watershed earns a C- in the 2020 Report Card. Direct comparisons to the 2015 Report Card are difficult because of changes in the methods and indicators, but the 2020 scores are a slight improvement from the D+ result in 2015. Download the report card: https://ian.umces.edu/publications/2020-mississippi-river-watershed-report-card/. Visit our partner's page: https://americaswatershed.org/reportcard/.
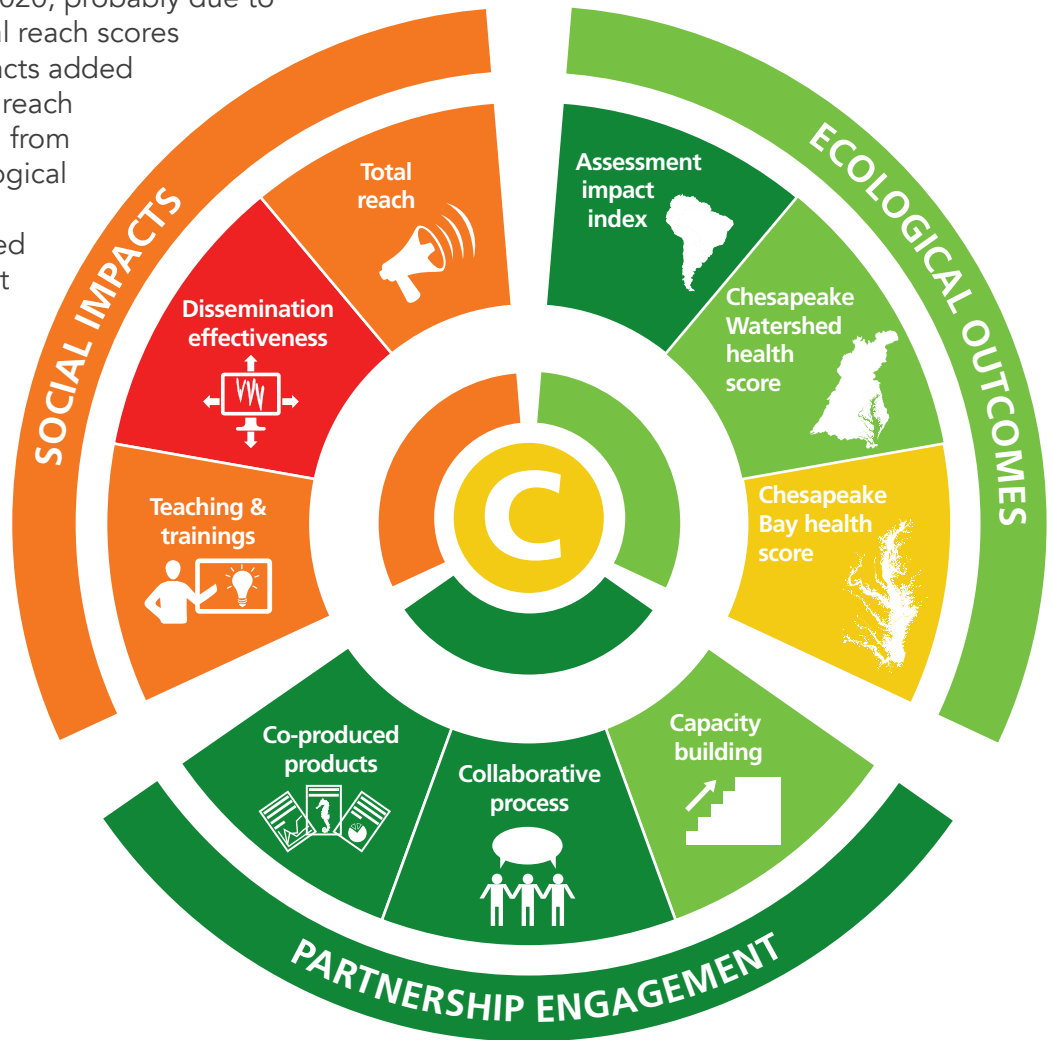
Western Lake Erie watershed and lake basin receive moderate scores in 1st Report Card

On August 14, 2020, the first-ever Western Lake Erie Report Card was officially released during a virtual webinar event. This is the first report card IAN has done in the Great Lakes region. The project, started in October 2018, was produced by IAN, and funded by the City of Toledo, Ohio; Lucas County, Ohio; and the City of Oregon, Ohio through the Lake Erie Foundation. This is the first effort that combines environmental data to show health status of both the lake and watershed in one integrated report, covering portions of Indiana, Michigan, Ohio, and Ontario, Canada. Overall the Western Lake Erie watershed and basin were found to be in moderate condition in 2018. See the report card here: https://ian.umces.edu/publications/western-lake-erie-1st-report-card/.
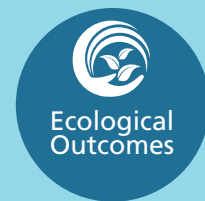
2020 Report Card results

Overall, the IAN Report Card scored a C (78%) for 2020. This is down from a B (84%) in 2019. The score for Ecological Outcomes (84%) slightly decreased from 87% in 2019. Partnership Engagement decreased to a 91% from a 99% in 2019. This was due to a strong decrease in Capacity building because partners did not think their projects built capacity and encouraged teamwork in their organizations in 2020. The Social Impacts category decreased from 66% in 2019 to 60% in 2020, most likely due to the IAN website migration. This was also caused by lower scores for Dissemination effectiveness and Teachings & trainings in 2020, probably due to the COVID-19 pandemic. Total reach scores improved in 2020. Social impacts added a Video Index under the Total reach indicator which examines data from Youtube and Vimeo. For Ecological Outcomes, the Coastal Bays Report Card score was removed from the analysis as that report card was not produced due to lack of data. It was replaced with the Chesapeake Bay Watershed Report Card score for watershed health which was added in 2019.

IAN scoring

A Very good (90-100%)

B Good (80-90%)

C Moderate (70-80%)

D Poor (60-70%)

F Very poor (<60%)

SOCIAL IMPACTS

Total reach

Dissemination effectiveness

Teaching & trainings

ECOLOGICAL OUTCOMES

Assessment impact index

Chesapeake Watershed health score

Chesapeake Bay health score

Capacity building

PARTNERSHIP ENGAGEMENT

Co-produced products

Collaborative process

PARTNER ENGAGEMENT **91%** **SOCIAL IMPACTS** **60%** **ECOLOGICAL OUTCOMES** **84%**

Partner Engagement → Social Impacts → Ecological Outcomes

IAN Theory of Change. IAN's ultimate goal is to create positive environmental outcomes. In order to achieve these outcomes, we recognize that we need to have an impact on society, largely through effective engagement with key communities and organizations. To achieve this societal impact, we need to work with partners who can help spread our messages and provide resources and expertise.

IAN is improving science communication & making science accessible around the world

In 2020, IAN partnered with organizations throughout the world to develop science communication products, ecosystem health report cards, and build capacity both through in-person and virtual teachings and trainings.

Verde River Watershed Report Card

Western Lake Erie 1st Report Card
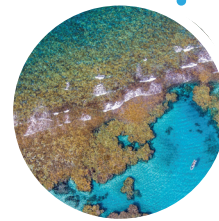
Chesapeake Bay & Watershed Report Card

Coral Reef Atlantic Status Reports

Bhitarkanika National Report Card

2020 Mississippi River Watershed Report Card

Gulf of Mexico Coral Reef Report Card

Lower Kafue River Basin Report Card

Kwando River Report Card

Darwin Harbour Report Card

2020
IAN by the numbers

58 people trained in science communication

10 New symbols uploaded

3,862,394 symbols & images downloaded from IAN's free libraries

41 IAN staff

1,215 project partners

161 partner organizations

16 out of **17** partners reported being very satisfied or satisfied with their IAN partnership

13 ecosystem health assessments completed

29 projects

521,389,115 people reached by media from Coral Reef Status Reports
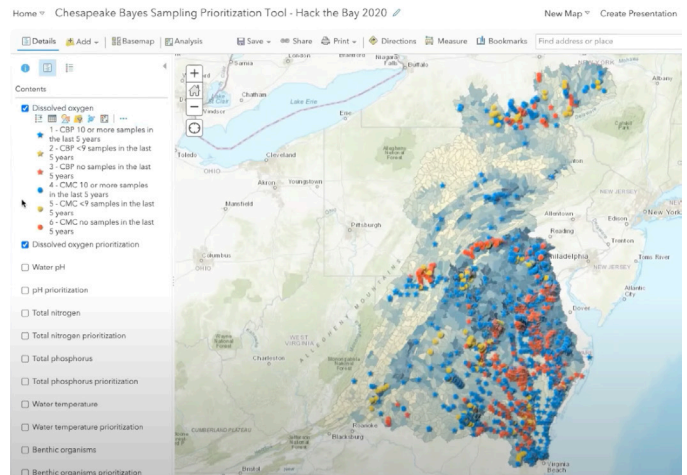
95,638,120 people reached by media from Chesapeake Bay Watershed Report Card

2 full semester graduate level courses

Virtual collaborations and learning

Hack the Bay improves science communication and data visualizations

Hack the Bay, a hackathon led by Booz Allen Hamilton in partnership with the Chesapeake Monitoring Cooperative (CMC), was a rousing success! Participants represented skills, positions, and levels of expertise across data science, web development, and human-centered design. The hackathon is one way that the CMC is collaborating on data analysis and visualization. The incredible value of this previously unanalyzed, nontraditional water quality data was explored through four challenges. Four winning projects were selected as the top solutions in their categories and were showcased to a virtual audience. View the winners here: https://hack-the-bay.devpost.com/project-gallery.

Mind the Gap, an online data visualization tool, was one of the winners of the hackathon.

MD Coastal Adaptation Report Card

IAN presented at the virtual Chesapeake Bay Watershed Forum in fall 2020. The upcoming Coastal Adaptation Report Card was highlighted in a session titled "Using Scorecards to Promote Climate Resilience." The Chesapeake Bay Program Climate Resilience Scorecard and the Resilience Adaptation Feasibility Tool were also presented. The session focused on the importance of adapting to ongoing and oncoming climate change.

Adaptation protects communities from climate change.

We would love to work with you!

Since 2002, IAN has been working to improve science communication around the globe. Over the years, IAN staff members have partnered with organizations to help scientists, managers, and non-profits on a variety of projects. Whether you're looking to train scientists to improve their science communication skills, complete an ecosystem health report card, build an app for your followers, or improve the readability of your publications, IAN can help. If you're ready to create an impactful document, analyze your data in new ways, or have a greater impact on management decisions in your region, contact IAN to discuss how we can work together to accomplish your goals.

Contact us today to get started. Email ian@umces.edu or visit ian.umces.edu

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CENTER FOR ENVIRONMENTAL SCIENCE
INTEGRATION AND APPLICATION NETWORK

Cover photos by Integration and Application Network (IAN). Map photos top row from left: The Nature Conservancy, Ken Lund (Flickr), IAN, JP Zegarra, and IAN. Bottom row from left: Robert J. Hurt Landscape Photography, Daniel Martinez Hernandez, WWF Zambia, Bernard Gagnon (Wikimedia Commons), and Northern Territory Government.