



Conducting the WOW-Wetlands Pathway

BEFORE AND AFTER THE AUDIT, GRADES 9-12

BEFORE

BE PREPARED

- Read through this document, the baseline audit and the post-action audit.
- Invite community experts to participate.
- Gather science tools (if applicable) and print materials.
- Conduct mini-lessons (if needed) to strengthen concept foundation.

ENDURING UNDERSTANDING

1. Wetlands provide habitat for numerous fish and wildlife.
2. Wetlands act as filters absorbing improving water quality.
3. Wetlands help maintain floodwaters.
4. Wetlands are impacted by the health of its watershed.
5. Human actions contribute to the decline of wetlands.

COMMUNITY AND CULTURE

- Community volunteers and advocates play a critical role in saving wetland habitat.
- Communities contribute to a healthy wetland when they care for their watershed.
- Cultural diversity is a source for learning sustainable practices.
- Intercultural dialogue should be a guiding principle in developing solutions, raising awareness and promoting action.
- Create an inclusive, safe place for Eco-Action Team members and others within and outside of the school community to participate.



CREATE YOUR
ECO-CODE



ECO-ACTION
TEAM



ENVIRONMENTAL
AUDIT

ECO-SCHOOLS SEVEN STEP FRAMEWORK



INVOLVE THE
COMMUNITY



ECO-ACTION
PLAN



LINK TO
CURRICULUM

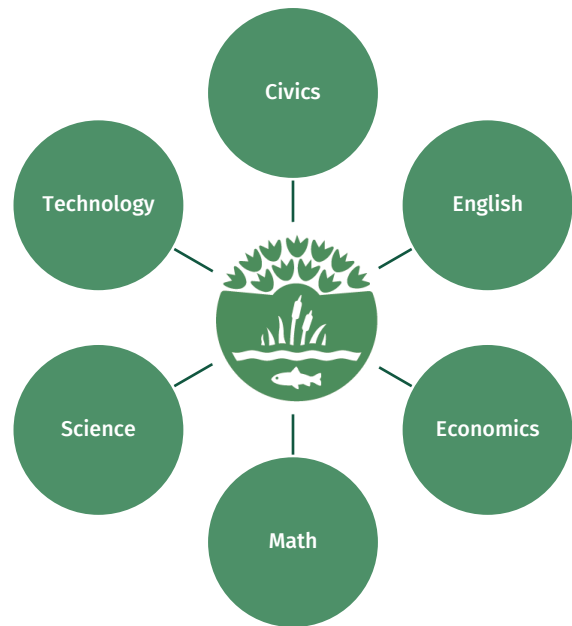


MONITOR &
EVALUATE



INTERDISCIPLINARY CONNECTIONS

- **Math** – Create a time series graph that shows how soil quality and temperature change through the seasons. Is there a relationship between any of the variables?
- **Science** – Wetlands play a significant role when considering coastal communities resilience to extreme weather. Investigate grey, green and brown infrastructure and how man-made and natural systems are being used to build coastal community resilience.
- **Engineering** – What is a constructed wetland? What have engineers learned from the few remaining (relatively speaking) natural wetlands in order to create, install and maintain constructed wetlands in urban centers and other locations around the nation?
- **Technology** – Strategize how to increase awareness and support for wetland restoration and use a digital storytelling platform to disseminate the stories and engage the community.



SUSTAINABLE DEVELOPMENT GOALS

In 2016, seventeen Global Goals for Sustainable Development were adopted by world leaders at a United Nations Summit. These goals universally apply to all countries, therefore Eco-Schools USA is committed to doing our part. Over the next fifteen years, efforts will be made by governments, institutions and citizens all across the globe to end all forms of poverty, fight inequalities and tackle climate change, while ensuring nobody is left behind.



Conserve and sustainably use the oceans, seas and marine resources for sustainable development.



Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification and halt and reverse land degradation and biodiversity loss.



GATHER THE FOLLOWING MATERIALS

- student worksheet(s)
- science notebook
- macroinvertebrate studies kits
- Fieldsopes (optional)
- audit form
- secchi disk*
- water and soil testing kits (optional)
- Binoculars (optional)
- clip boards
- regional and/or state plant and animal field guides
- soil and water temperature probes (optional)
- SEEK app (optional)

PROCEDURE

1. Before the audit, contact local experts who are willing to assist. These individuals can provide more in depth understanding and can help direct the team when questions arise and/or concerns arise.
2. Read through the audit. As an Eco-Action Team determine, based on the size of your school and the tasks to be completed, how much time will be needed to complete the baseline or post-action audit.
3. As a team, find the best locations on the school grounds or within the surrounding community to conduct investigations.
4. Conduct the baseline audit and make plans to conduct the post-action audit.
5. Analyze the results and develop an action plan.
6. Frequently communicate results and plans with the school and community.



DASHBOARD METRIC

- How many actions did students take to improve watershed health?

*DIY Secchi Disk

- <https://zebrazapps.com/embed/#/b2f40eb4598249c19bc3028ca532eb55>
- <http://www.des.nh.gov/organization/divisions/water/wmb/vlap/documents/secchi.pdf>



AFTER

1. NEXT STEP: DEVELOP AN ACTION PLAN

Move into Step 3 of the Seven Step Framework by using the audit results to develop an [action plan](#).

Identify community leaders, experts, advocacy organizations who can assist students with solution implementation and advise the Eco-Action Team how to address issues of social justice.



2. UPDATE YOUR DASHBOARD

[Login to the school's dashboard](#) and complete the following tasks.

- Upload your audit results and your action plan.
- Add any related photos or videos.
- After completing the post-action audit and moving through the Seven Step Framework apply for an award.



3. STUDENT PHOTOGRAPHERS

Invite students to protect wildlife and conserve habitat by participating in National Wildlife Federation's photography contests

- [National Wildlife Federation's Photo Contest, opens in January.](#)
- [National Wildlife Federation's Garden for Wildlife Photo Contest opens in August.](#)

4. NEXT PATHWAY



Consumption and Waste Pathway -

A school can reduce its environmental impact by analyzing its consumption habits and behaviors as well as the full life cycle of the products it uses.



Biodiversity Pathway -

Biodiversity is the variety of life on our planet, and a wide diversity of plant and animal species is the key to a healthy, functioning ecosystem. Investigate and strategize ways to improve biodiversity on the school grounds.



5. CONNECT TO THE GLOBE PROGRAM

[The Global Learning and Observations to Benefit the Environment \(GLOBE\) Program](#) is an international science and education program that provides students and the public worldwide with the opportunity to participate in data collection, the scientific process, and contribute meaningfully to our understanding of the Earth system and global environment.

Atmosphere

aerosols | air temperature | clouds | precipitation | surface ozone | surface temperature

Biosphere

arctic bird migration | carbon cycle | green up/down | land cover classification |

Hydrosphere

alkalinity | conductivity | dissolved oxygen | freshwater macroinvertebrates | mosquitoes | nitrates | pH | salinity | temperature | transparency

Pedosphere

bulk density | characterization | fertility | infiltration | moisture-sensor | pH | temperature