

*STEAM: ART BRINGING
LIFE TO*

*WATER ACROSS THE
CURRICULUM*

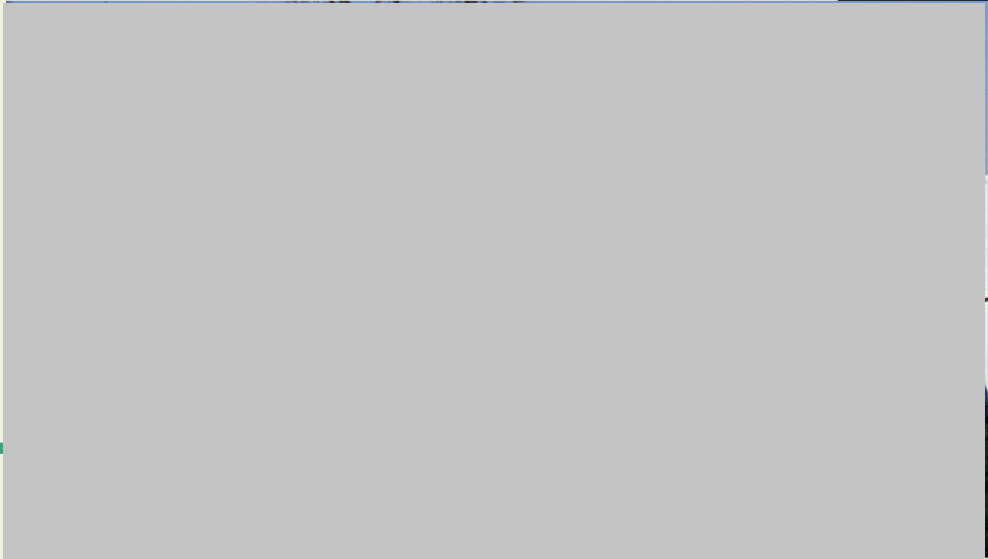
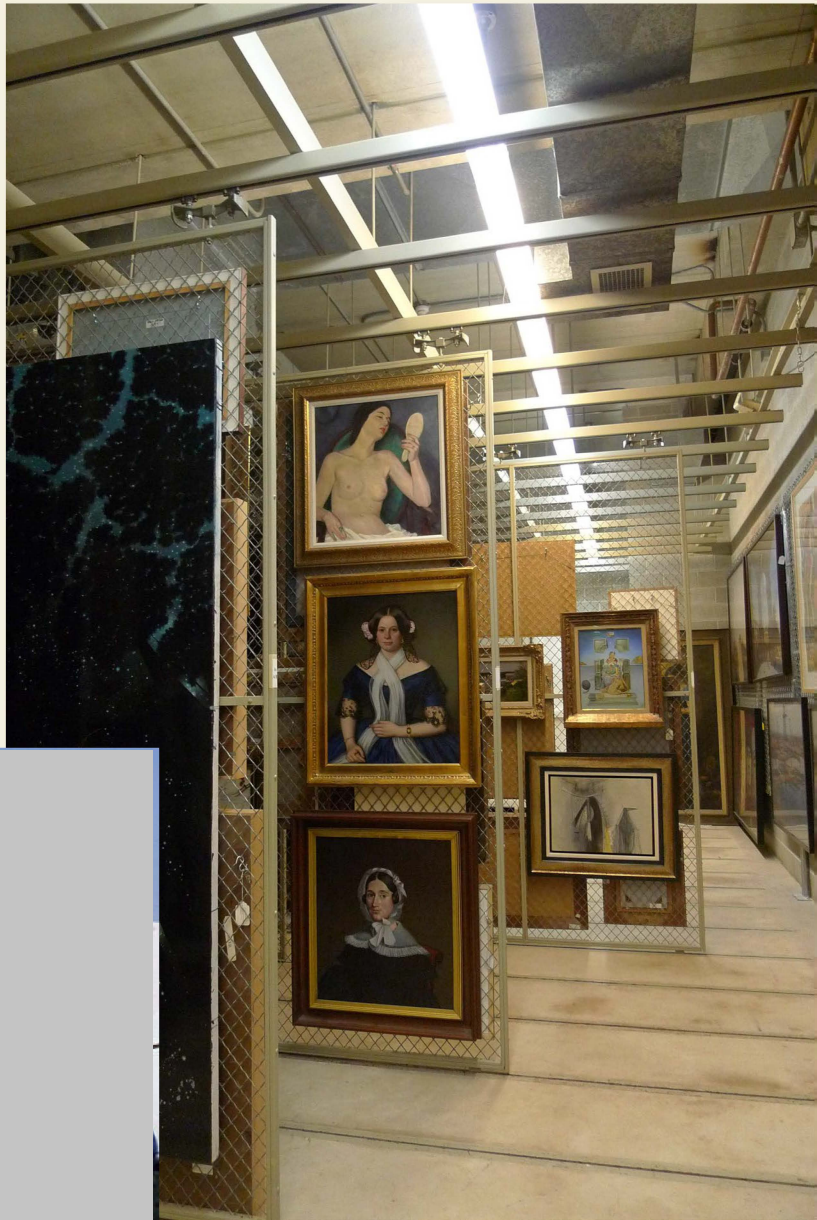
*Christine Fleming, Manager of Community Engagement
The Haggerty Museum of Art at Marquette University*

Goals for this session:

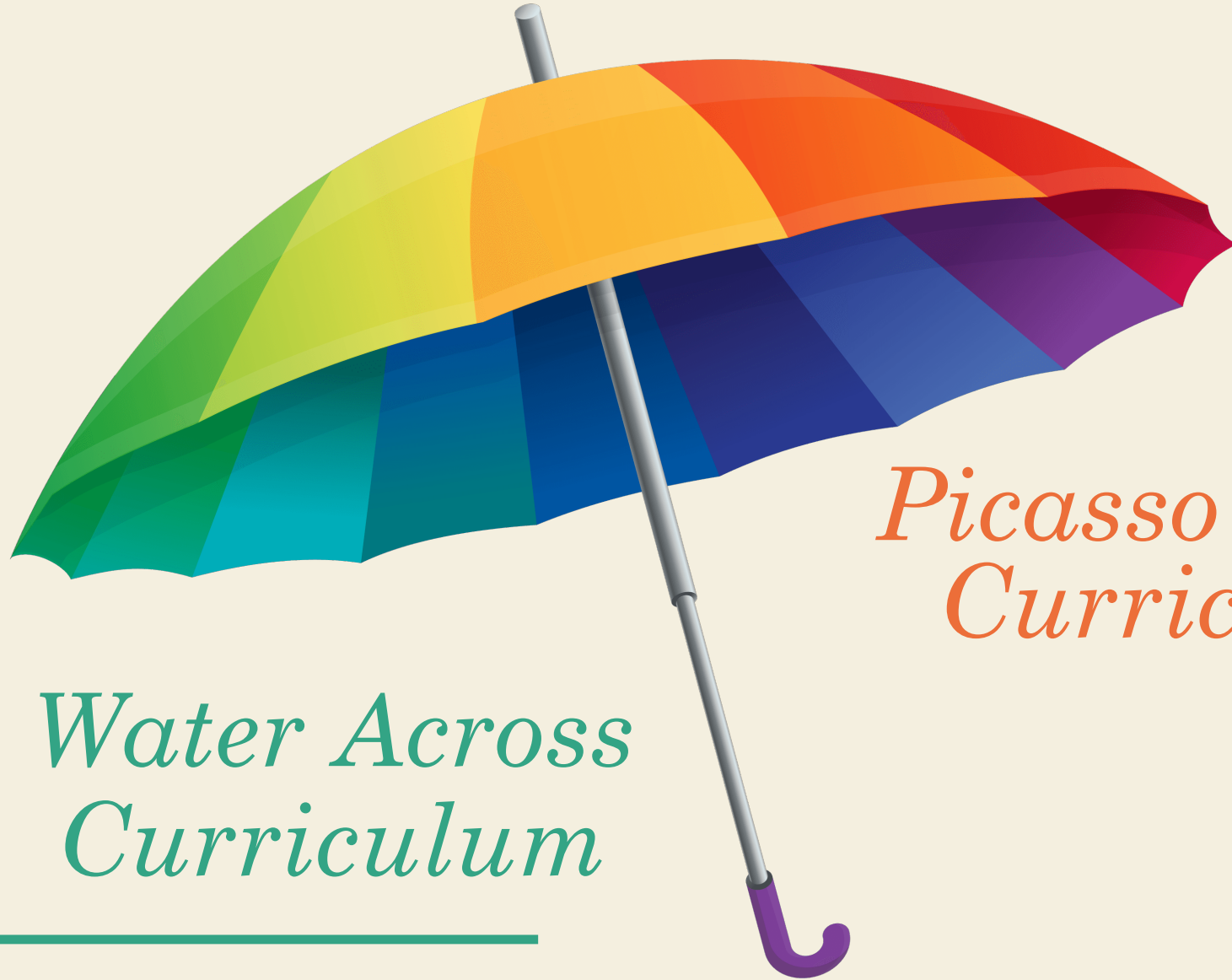
HIGHLIGHT A SUCCESSFUL METHOD OF COLLABORATION AND FULL TRANSPARENCY.

PROVIDE A REAL-WORLD EXAMPLE OF DOING LESS TO DO MORE.

DEFINE AS A GROUP WHAT COLLECTIVE IMPACT MEANS FOR WATER AND ECO LITERACY IN MILWAUKEE.



Art Across Curriculum



*Picasso Across
Curriculum*

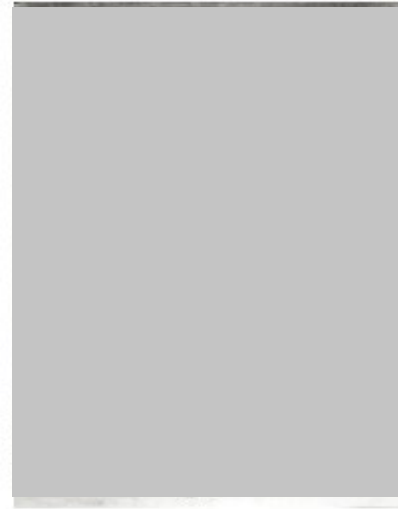
*Water Across
Curriculum*



Water Across Curriculum Images and Activities

Barbara Morgan
American, 1899-1982
Wind Ripples in Mono Lake, 1929
Gelatin silver print
8 3/4 x 9 3/4 in.
15.9 x 24.1 cm
91.3.53
Gift of Lloyd and Janet Morgan
Collection of the Haggerty Museum of Art,
Marquette University

Water Across Curriculum



A Curriculum Guide for Teachers
Haggerty Museum of Art, Marquette University

By
Lauralee Guilbault, Ph.D.
and
Sylvia Peine

[Ralph Steiner](#), American, 1888-1980
Two Men and the Ocean, 1921/1980
Gelatin silver print
4 3/4 x 3 5/8 in., 12.1 x 9.3 cm
98.157.3
Gift of Theresie and Murray Weiss, Collection of
the Haggerty of Art, Marquette University.
Collection of the Haggerty Museum of Art,
Marquette University

Water Across Curriculum

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A Curriculum Guide for Teachers
Haggerty Museum of Art at Marquette University

By
Sylvia Peine and Lauralee Guilbault, Ph.D.
Edited by Barbara Maciejewski and Lynne Shumow

Kevin J. Miyazaki
American, b. 1956
Perimeter, 2012
Digital C-prints
24 x 20"
Commissioned by the
Haggerty Museum of Art, Marquette University

2018-2019



Agua, Arts, Aquatic Awareness, Acosta!

watermarks
an atlas of water and the city of milwaukee...

Water Across Curriculum



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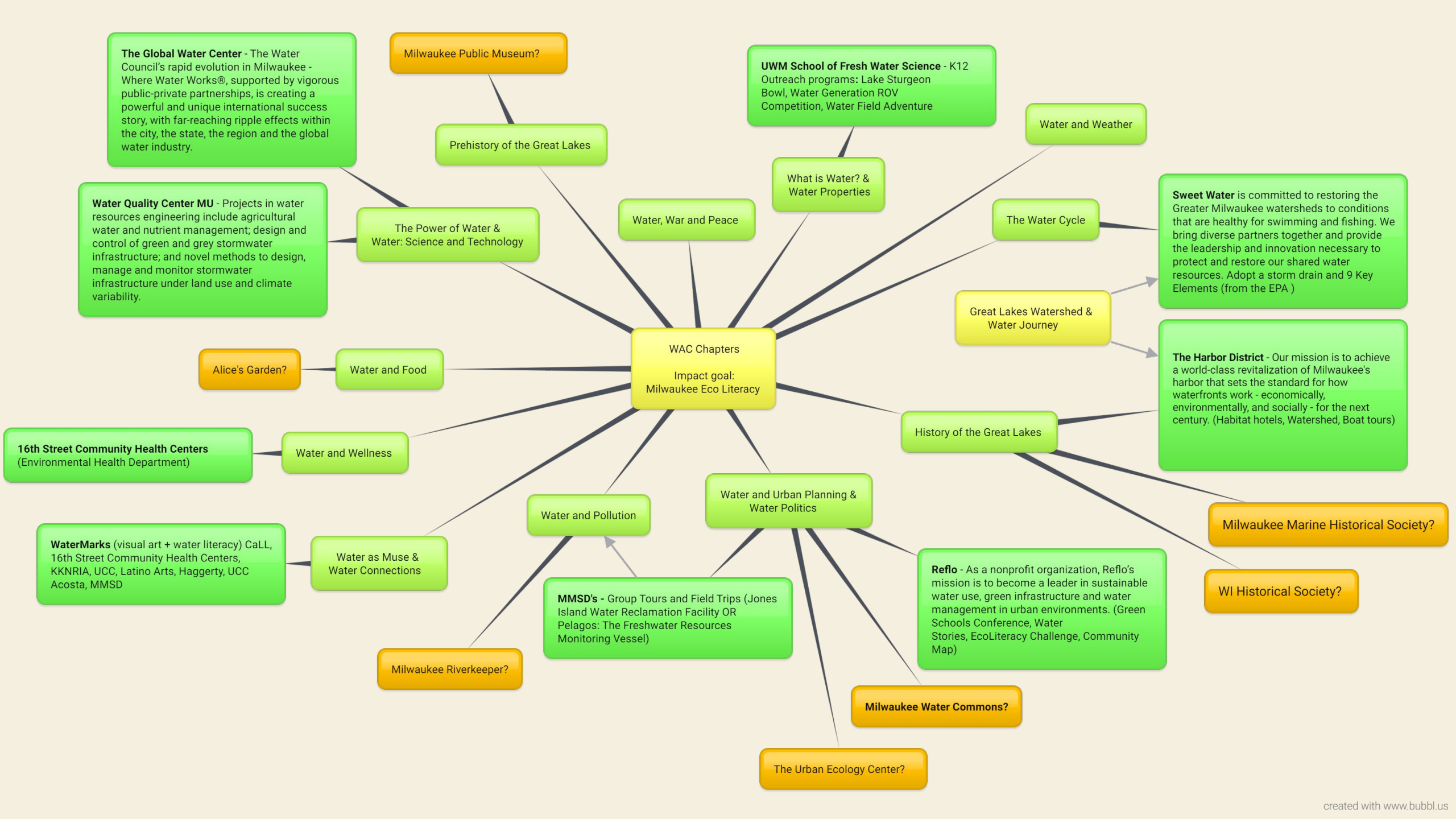




WHAT TO UPDATE...

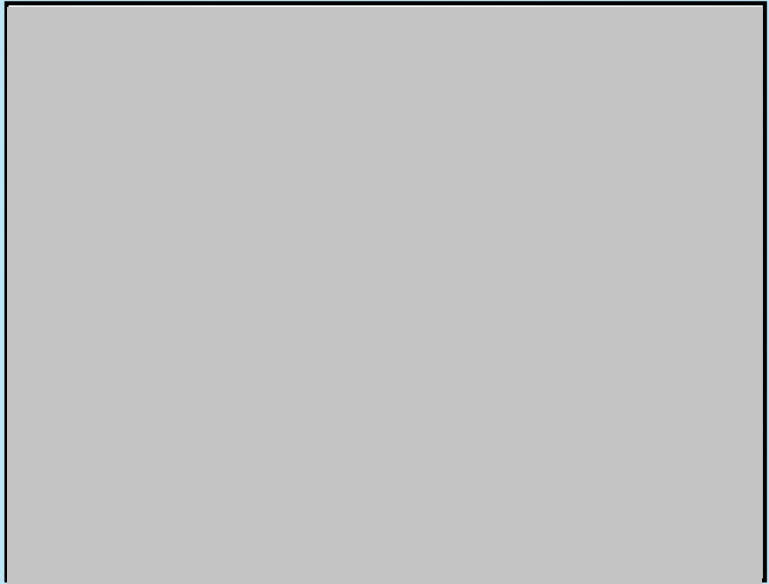
*The listening and
learning loop.*

*Why recreate
something that
already exists in
our community?*



<https://www.marquette.edu/haggerty/documents/WAC.pdf>

Water Across the Curriculum
Educator Resource Guide
PreK – 12th grade



Barbara Morgan, American, 1900 – 1992, *Children Dancing by the Lake*, 1940, Gelatin silver print, 13 5/8 x 17 15/16 in, 34.6 x 45.6 cm, 91.3.61, Gift of Lloyd and Janet Morgan, Collection of the Haggerty Museum of Art, Marquette University

Table of Contents

- 1. What is Water? (Pre-K – 5th grade) pg 6–19**
Themes explored: Defining water, states of water, personal reflection + art

- 2. The Water Cycle (Pre-K – 5th grade) pg 20–33**
Themes explored: Evaporation, condensation, and precipitation; groundwater and underground aquifers + art

- 3. Water and Pollution (Pre-K – 12th grade) ... pg 34–49**
Themes explored: Sources of water pollution for the Great Lakes + art

- 4. Water Properties (6th – 12th grade)..... pg 50–64**
Themes explored: Water as molecules, three different states of water, water terms such as surface tension, water pressure, cohesion + art

2019-2020

Experience & Explore

To enhance learning, each chapter includes opportunities for students to gather and recall the material of their own experience in order to create deeper meaning.

At in Context

Learn more about the 19 artworks and 14 artists included in this resource guide and how their art connects to water issues and themes. Each chapter features 3 or more artworks from the HMA collection. Each artwork is designed as a two page printable resource. The first page features the artwork on a full page, the next page includes information about that artist on back. Feel free to print these out for your students. Make use of any and all featured artworks from all chapters in your classroom.

Make It Personal

Help students formulate questions that will broaden their awareness and compel them to consider the viewpoints of others.

Evaluation

Evaluations give you and your students time to reflect on what you have learned and how the WAC program enriched your classroom teaching goals. A feedback form is available [here](#). Please take a few minutes to let us know what you think and encourage your students to help you fill it out.

Deep Dives

This resource guide is just a starting place! Investigate additional resources from local and global organizations, read books selected by Sandy Brehl, request a visit to HMA, or arrange a classroom visit from the lesson plan themes listed.

Engage

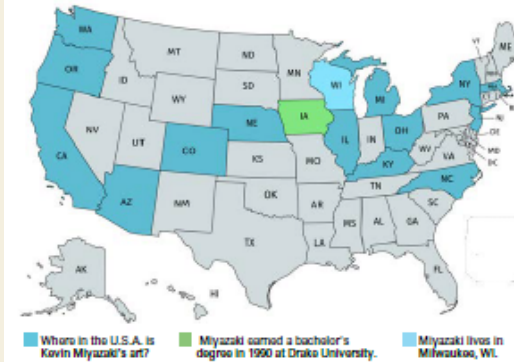
Use the recommended activities to challenge the imagination of your students to put each theme into action.



Utagawa Hiroshige (Japanese, 1797 - 1858), *Barges on the Yotsu-dori Canal (no. 33) from One Hundred Famous Views of Edo*, 1856-1862. Woodblock print. Gift of Cava Rosa Estate, Collection of the Haggerty Museum of Art, Marquette University, 88.8.6.3.

Art in Context

Use this map with your students to explore Kevin J. Miyazaki's life and work.



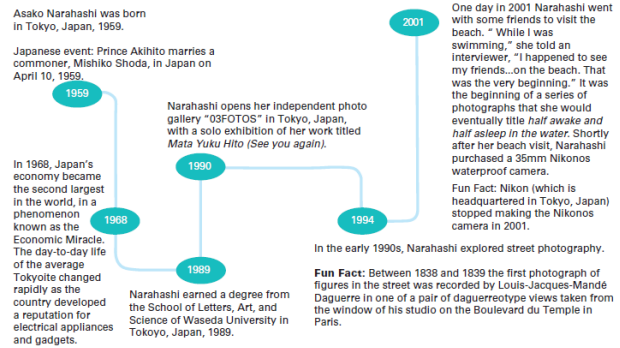
"Perimeter was a project commissioned by the Haggerty Museum of Art at Marquette University, which invited me to create new work addressing the topic of fresh water and the Great Lakes." [Source](#)

* Learn more about the Perimeter series on the artist's website [here](#).

Artists make art in a variety of ways. Since photography and computer printing became the norm, portrait and landscape formatting is used to describe an artwork's orientation. Often artwork featuring people is done in a portrait format, while artwork featuring land or sea is done in a landscape format. Look through the rest of the artworks in this resource guide — do the other artworks follow this "rule"?

Art in Context

Use this timeline with your students to explore Asako Narahashi's life and work.



"I am not a very good swimmer, and I am rather uncomfortable in the water. I cannot escape a sense of fear. Even if I decide that I want to take a photograph from [the water], there are times when I just can't do it." [Source](#)

* Although Narahashi isn't a good swimmer, she challenges herself when she takes her photographs. Find a partner and share **how do you challenge yourself?**

Art in Context



The Tokaido road, linking the shogun's capital, Edo, to the imperial one, Kyoto, was the main travel route in old Japan, made of the "Five Roads" (Gokaido)—the five major roads of Japan created or developed during the Edo period to further strengthen the control of the central shogunate administration over the whole country.

In 1832 Utagawa Hiroshige traveled the length of the Tokaido from Edo to Kyoto, as part of an official delegation transporting horses that were to be presented to the imperial court. *Fifty-Three Stations of the Tokaido Road* is a series of [ukiyo-e](#) woodcut prints created by Hiroshige after his trip.

See all 55 prints [here](#). How many stations include some form of [precipitation](#)?

* Embossing was a common technique in Japan during the Edo era. Watch a video to learn how to make embossed paper using a carved woodblock [here](#).

Experience and Explore

Describe It Activity:

Water is such a common substance that we barely notice it. It is around us every day, all the time. We use it for drinking, washing (ourselves, our clothes, and even our homes), recreation, and waste disposal, yet we take it for granted.

Give students time to look closely at a container of water. Work with students to create a list of words on the board that describe water. Helpful categories: the five senses.

Give students time to look closely at *Wind Ripples in Mono Lake*, 1929, by Barbara Morgan. Work with students to create a list of words on the board that describe the artwork. Helpful categories: the principles and elements of art.

- * Looking at art tip: Ask students to describe where they see each word within the artwork (no pointing allowed). This will build important visual language skills.

Discuss the two lists of words as a class. What similarities and differences can they find when comparing the two lists?

Define It Activity:

In small groups, or as a large group, have students create a one-sentence definition of water using the list of words collected during the Describe It activity. Discuss as a class, then compare either the Merriam-Webster or the Oxford Dictionary definition of water.

The Dictionary by Merriam-Webster:

The liquid that descends from the clouds as rain, forms streams, lakes, and seas, and is a major constituent of all living matter and that when pure is an odorless, tasteless, very slightly compressible liquid oxide of hydrogen H₂O which appears bluish in thick layers, freezes at 0° C and boils at 100° C, has a maximum density at 4° C and a high specific heat, is feebly ionized to hydrogen and hydroxyl ions, and is a poor conductor of electricity and a good solvent.

OR

Oxford English Dictionary:

A colorless, transparent, odorless liquid that forms the seas, lakes, rivers, and rain and is the basis of the fluids of living organisms.

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Make It Personal

Reflect

Using a [bubble mapping worksheet](#), have students map their personal connections with and knowledge about water.

- 1 Start with the middle bubble and have students write as many names for water as they know, and at least one new name. (Water, Eau, Agua, Mizu, Voda, Wasser, find more [here](#).) Explore water as cultural connection.
- 2 Connect the middle bubble with the 3 different states of water on Earth (Solid: ice/snow, Liquid: water/rain, Gas: water vapor/steam).
- 3 Encourage students to write their own personal memories of or stories with each state of water in the remaining connection bubbles.

Engage and Take Action

What can you do to learn more about water?

The Milwaukee Water Commons recommends that you learn to swim! Find out more [here](#).

Find swimming lessons available near you [here](#).

Fun Fact

Water behaves differently on different surfaces. It is more strongly attracted to some materials than others. For instance, water will form beads or droplets on waxed paper, but will be attracted to and absorbed into paper towel material.

Ride the Wave

Organize a classroom visit led by a HMA educator. Choose to do one lesson, or all three! Email Christine.Fleming@marquette.edu to find out more.

Essential Questions:

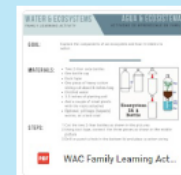
- What effect does water have on your senses?
- Where is water in the world, and what do different water environments entail?
- In what ways is water used in the world?

Deep Dives

Ask a local expert!

Send Liz Sutton, Manager, Outreach Program at [UWM School of Freshwater Sciences](#), an email at emsutton@uwm.edu to ask a specific water-related question. She will help to get you and your students an answer.

Family Learning Activity Available in both [Spanish](#) and [English!](#)



EcoLiteracy Challenge

The EcoLiteracy Challenge is a one-stop shop for water and sustainability-related curricula, projects, presentations, field trips, and more that are designed to engage and excite everyone around our most precious resource: water. Complete water-related activities, sign on to the ELC to report your activities for points, and help build a more sustainable community. Join the EcoLiteracy Challenge [here](#).

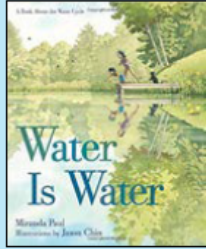
Visit the [Next.cc website](#) to learn more about water.



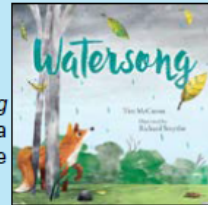
18 What is Water?

Book Recommendations

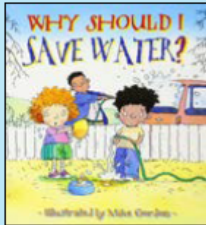
Find them at a [library](#) near you!



Water Is Water : A Book About the Water Cycle
Author: Miranda Paul
Illustrator: Jason Chin



Watersong
Author: Tim McCanna
Illustrator: Richard Smythe

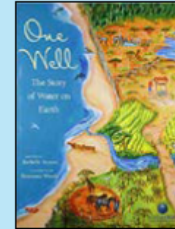


Why Should I Save Water?
Author: Jen Green
Illustrator: Mike Gordon

For more ideas, check out Goodreads list "Best Children's Books about Water" [here](#).

Book Recommendations

Find them at a [library](#) near you!



One Well: The Story of Water on Earth
Author: Rochelle Strauss
Illustrator: Rosemary Woods



Flush!: The Scoop on Poop Throughout the Ages
Author: Charise Mericle Harper



What a Waste: Trash, Recycling, and Protecting our Planet
Author: Jess French

Plastic Ocean: How a Sea Captain's Chance Discovery Launched a Determined Quest to Save the Oceans
Authors: Charles Moore and Cassandra Phillips

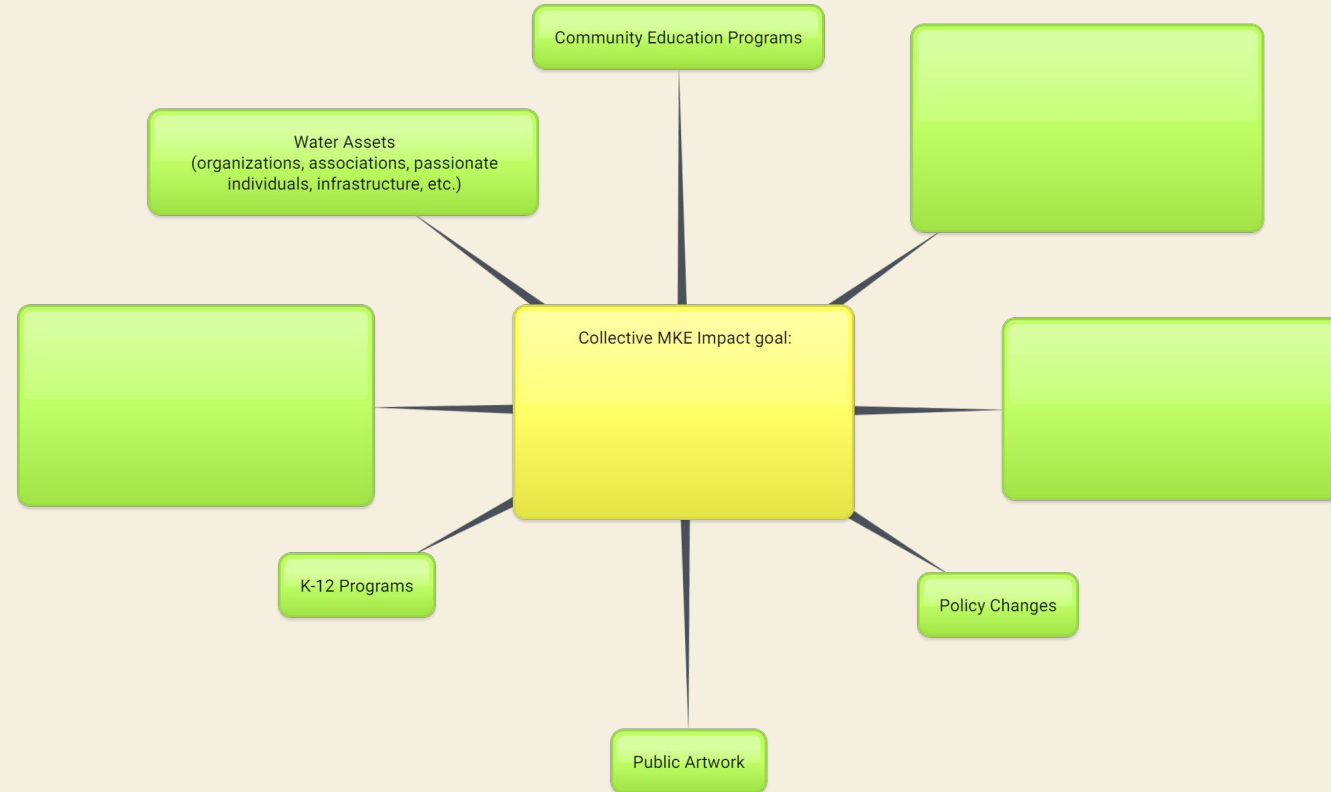


Trashing the Planet: Examining Our Global Garbage Glut
Author: Stuart A. Kallen

Lessons Learned

- MKE has a LOT of water assets and organizations.
 - Water organizations were excited to include the arts in ~~STEM~~ **STEAM**.
 - Our main goal: supporting existing efforts, meant organizations were very willing to loop me in.
 - We won't ever be done updating our WAC Resource Guide!
 - More people working together= greater impact.
-

What should collective impact look like for Milwaukee?



created with www.bubbl.us

Fill in bubbl.us map and share a picture with #CRCL2019

HARVEST



QUESTIONS?

