

# LIVE GREEN! MONTHLY

**"NO WATER, NO  
LIFE. NO BLUE, NO  
GREEN."  
- SYLVIA EARLE**

**ISU STUDENTS  
SUPPORTING HEALTHY  
WATER SYSTEMS**

**NOW YOU KNOW:  
HYDRATING ALL LIFE  
ON LAND AND  
WITHIN WATER**

**GREENING BREAK:  
LEAVING A LIGHTER  
TRAVEL FOOTPRINT**



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IOWA STATE UNIVERSITY

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### Follow Us!



### Hydration is life.

Hydrating Green and want to share your progress? Tag @isu\_livegreen on social media — we would love to see your ideas, thoughts and creations.



Photo by Semiu Hodza

### MARCHING TOWARD HYDRATION

Welcome to another month and another step closer to spring. This issue, Live Green! looks forward to further exploring the United Nations' Sustainable Development Goals. This month, we are diving into goals 6 (Clean Water and Sanitation) and 14 (Life Below Water) under the theme of "Hydrating Green."

Live Green! also sends its thanks to all who helped make the 11th-annual Symposium on Sustainability and companion event, Sustainapalooza (image above) such a great success! For more information on the 2020 Symposium and our keynote speaker, Erin Brockovich, visit pages 4 and 5, the Live Green! [website](#) and the Sustainapalooza [Facebook event page](#).

Next month kicks off Earth Month and the 50th anniversary of Earth Day on April 22. Stay tuned for more information about ISU's celebration in next month's newsletter, the Live Green! [website](#) and Facebook [page](#) for event updates.

### MARCH 27 | 7PM. MU, M-SHOP, ISU



You are invited! All are welcome to attend Sci Nite, a sustainability celebration including the best ISU has to offer in STEM, sustainability and the arts. Gather for a fun night of performances and talks around sustainability. The event will also include various refreshments and giveaways.

Cover image by Paige Anson



# DIRECTOR'S MESSAGE

As the saying goes, "When the well is dry, we know the worth of water."

While seeming so obvious, isn't this so true? Consider for a moment your personal relationship with water... isn't it one of constant assuredness, that water is always available? Understandably so.

Reflect on a typical day. Shortly after waking up, we are using water for showering or bathing, making coffee or getting breakfast, brushing your teeth and flushing the toilet. In the matter of an hour or two each of us, without even thinking about it, has demanded and consumed multiple gallons of water. And that is just to get us started on our day. From there, water bottle fills, more toilet flushing, hand washing, another cup of coffee or two, additional meals and the water uses related to bedtime, equate to an average daily demand of 80-100 gallons of water each of us requests from the planet (estimated by the United States Geological Survey on their [website](#)).

At Iowa State University, the planet abides. And we really have no need to give this daily regimen a second thought, except for the occasional Facebook post, article or newsletter column reminding us to conserve and leave a lighter footprint on the planet for the generations that follow us. How very fortunate we are.

This gift of life that flows so freely and cleanly from our faucets and fountains, is a coveted luxury by billions of people across the world. For some, there is no access to clean water, for others, water is becoming in shorter supply. And then there are all the beings that depend upon water as their life-sustaining atmosphere – challenged by both water quality and quantity.

In this month's issue of Live Green! Monthly, our deeper consideration of the United Nations Sustainable Development Goals continues with focus on Goal 6 Clean Water and Sanitation and Goal 14 Life Below Water. This issue features ISU students fighting for a sustainable water future, resources to enable adequate and responsible self-hydration and opportunities to support and enhance awareness, engagement and empowerment toward ensuring a water secure future.

Wishing you a month that hydrates you - body and soul!

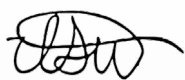
Yours in green-ness,



For March Newsletter:

February was a busy month for the Sustainability Committee! My committee and I worked on researching and writing a [Declaration of Climate Emergency](#) that was passed by Iowa State Student Government Senate on February 12. Both the University of Iowa and University of Northern Iowa have declared climate emergencies and it was important for Iowa State to do so as well to show the importance of the issue to all students at the public universities in the state of Iowa. I encourage everyone to look over the declaration on the Student Government Sustainability Committee web [page](#).

We also have SciNite coming up in the month of March! SciNite is a night of performances and talks dedicated to learning more about sustainability! This year it will take place on March 27 that 7:00pm in the M Shop. If you are interested in performing, please submit this form (found on the ISU Student Government [website](#)). by March 6. I hope to see everyone there!



Email Izzy with ideas or questions, [iswilde@iastate.edu](mailto:iswilde@iastate.edu).  
Follow the Sustainability Committee's Instagram, [@isusustainability](#).



Photo by Krishaun Burns

**MERRY RANKIN** is Iowa State University's Director of Sustainability and the City of Ames Sustainability Coordinator. She works with both the ISU campus and the community of Ames in developing a working relationship with sustainability.

The Live Green! Monthly is a monthly publication from the Office of Sustainability at Iowa State University.

Live Green! is Iowa State University's campus wide sustainability initiative, encouraging all students, faculty and staff to be fully committed to and engaged in making our projects and initiatives, our operations and our campus environmentally, economically and socially sustainability.

## DIRECTOR'S UPDATE



Photo Courtesy of Izzy Wilde

**IZZY WILDE** is Iowa State University's 2019-2020 Student Government Sustainability Director. She is a senior majoring in Spanish and community and regional planning.



# SYMPOSIUM ON SUSTAINABILITY RECAP

## "VISIONS OF A SUSTAINABLE FUTURE"

### SYMPOSIUM FEB. 24

#### KEYNOTE SPEAKER: ERIN BROCKOVICH

Erin Brockovich, consumer advocate and author, shared her experience promoting sustainable water systems and communities and emphasized the importance of being confident in standing up and speaking out for basic health and human rights. A poster session featuring ISU sustainability achievements and initiatives preceded her talk. Learn more about Brockovich's story on her [website](#).



#### LOCAL DINING

Sourcing many ingredients from local producers, ISU Dining provided savory and sweet dishes and refreshing beverages at the Symposium and its companion event, Sustainapalooza.



### LIVE GREEN! AWARD FOR EXCELLENCE IN SUSTAINABILITY

#### FACILITIES PLANNING & MANAGEMENT



Honored for completing three pollinator gardens on campus that support a variety of native pollinators and stormwater filtration, reducing maintenance needs by 50% and virtually eliminating fossil-fueled maintenance. Read more FPM sustainability efforts on the Live Green! [website](#).

#### ISU DINING



Honored for their efforts in combating food insecurity through the Give A Swipe Program; students donating 531 meals to other students during 2019-2020. Learn more green efforts on the ISU Dining [website](#).

#### TRANSPORTATION SERVICES & ISU PARKING



Honored for their commitments in establishing electric vehicle charging stations on campus, and efforts in adding electric cars to the university daily rental motor pool; reducing CO2 emissions by nearly a ton in the first six months. Learn more transportation green efforts on the Live Green! [website](#).

### SUSTAINAPALOOZA FEB. 25

#### GREEN-IT-YOURSELF CENTERS

Hands-on, take-away projects promoting sustainable living were offered at Sustainapalooza, including: toothpaste, trail mix, upcycled poster gift bags, sweater coozies and magnets.



Copy, photos and layout by Paige Anson



# "PICTURING A MORE SUSTAINABLE WORLD"

## TABLING INITIATIVES/ACTIVITIES



### Tabling Organizations

Over 30 student and community organizations promoting social, economic and/or environmental sustainability gathered to share their sustainable visions.



### Poster Session

A diversity of sustainable initiatives and achievements made at ISU were displayed at the event. Learn more about them online by visiting Live Green!'s [website](#).



### CYlebrity Wall

Lights, camera GREEN! Attendees gathered to pose and celebrate green community achievements and visions with ISU's favorite celebrity, CY.



### Clothing Swap

Attendees were invited to donate clothes or unperishable foods in exchange for taking a "new-to-you" clothing item at the annual Sustainapalooza clothing swap. Visit the Live Green! Sustainapalooza [web page](#) to learn about past swaps and green activities.



### Visioning Wall

Sustainapalooza's theme "Picture Yourself In A Sustainable World," was embraced with a visioning board craft station. Continue to picture and craft a more sustainable world and campus online, and tag @isulivegreen.



### Green Giveaways

Sustainable prizes were offered to attendees who visited with tabling organizations at the event. Prizes included green cleaning and cooking supplies, buttons, stickers, paper towel-saving cloths, an herb gardening kit with compostable pots and more.



Learn more about and view photos from the 2020 Symposium at [livegreen.iastate.edu](#) or follow up with the event on Live Green!'s Facebook [page](#).

## THANK YOU

Gratitude is extended to the green initiatives that attended this year's event to share their visions and resources for a more sustainable future.

- American Fisheries Society
- Ames Climate Action Team/ EcoTheatre Lab
- Be the Match on Campus
- City of Ames Census
- City of Ames Electric Services
- City of Ames Resource Recovery Center
- City of Ames Smart Watersheds
- Climate Reality Campus Corps
- Common Ground-Story County Conservation
- Dance Marathon at Iowa State University
- Department of Natural Resources
- ISU Department of Residence Engineers for a Sustainable World
- Environmental Education Club
- Facilities Planning and Management Recycling Services
- FoodCorps Iowa
- Food Recovery Network
- Global Resource Systems
- Greeks Go Green
- Green Iowa Americorps
- International Agriculture Club
- Iowa Environmental Council
- Iowa State Environmental Science Club
- Iowa Waste Exchange
- ISU Dining
- ISU Peer Wellness Educators
- Mustard Seed Community Farm
- Oxfam America Club
- Pay It Forward
- Story County Conservation - Conservation Corps
- Students Helping Our Peers
- Sustainable Agriculture Student Association
- The Workspace
- Volunteer Center of Story County
- Wheatfield Co-Op

# STUDENTS LIVING **CARDINAL, GOLD & GREEN**

## ENSURING GOOD HYDRATION THROUGH CLEAN WATER SYSTEMS

Two hydrogen ions and one oxygen. This combination creates the most essential molecule for life. Water.

Although seemingly simply built, water creates the complex ecosystems, and many of the many complex issues, that our world has today.

One issue includes potable water inaccessibility to 1 out of 10 people (844 million people) ([worldvision.org](http://worldvision.org)).

Clean water accessibility for all living beings often comes down to two major factors, location and quality, which are influenced by natural and anthropogenic (human caused) processes.

Naturally, only .5% of the water on Earth is fresh (drinkable) and physically accessible, according to [USBR.gov](http://USBR.gov).

Humans influence water accessibility with societal processes; how we clean and pollute water resources and structure societies to make clean water affordable.

The United Nation's Sustainable Development Goals 6 (Clean Water

Photo courtesy of the Soil and Water Conservation Club

### Soil and Water Conservation Club



and Sanitation) and 14 (Life Below Water) aim to address these water accessibility issues.

Two student organizations at Iowa State University supporting these goals are the Soil and Water Conservation club and the Water Environment Federation club.

### Soil & Water Conservation Club

The Soil & Water Conservation Club, a student chapter of the nonprofit Soil & Water Conservation Society, aims to improve water accessibility and quality by promoting sustainable land use.

One project the organization works on includes building and selling a Ground Water Flow model (view on [page 7](#)).

This model is meant to help people understand the water cycle and where the water in their yards and fields, and everything in it, is going.

It is also meant to help encourage connections between the impacts of land use on water resources.

"[Large levels of nitrates from land uses] severely

harm aquatic life through algal blooms. You can see it down in the gulf. The fishing industry is injured because of it," Abbie Portz, the club's former secretary said.

The club also compiles information for an annual water quality publication that is meant to help increase awareness of sustainable land use practices that support healthier water systems.

"Anyone who has an interesting topic related to soil and water [conservation], we try to get them into this publication and we send it out to a lot of high schools in Iowa and to anyone who wants one," Portz said.

The club also aims to keep members informed of land-use practices and knowledge that can help them make choices that support water accessibility.

"At most of our club meetings we will also have a speaker. Somebody that is relevant to soil and water conservation topics," Hannah Weber, the club's president said.

Topics often discussed include water quality conservation practices, like vegetative buffer strips and cover crops: two practices that use plants to help filter water running into waterways and reservoirs.

Many students that join the club, like Portz and Weber, are agronomy majors.

### Hannah Weber

*Soil & Water Conservation Club President*

Photo courtesy of Hannah Weber



### Abbie Portz

*Soil & Water Conservation Former Club Secretary*

Photo courtesy of Abbie Portz



### Peiyang Li

*Water Environment Federation Club President*

### CONNECT!

Connect with Soil & Water Conservation Club during their club meetings every other Monday at 6 p.m. in Agronomy 1026 (learn more on their [website](#)) or reach out to them on their Facebook [page](#).

Connect with ISU's student chapter of the Water Environment Federation during their monthly meetings (learn more on their [website](#)), on their Instagram: [wef\\_iowa\\_state](#) or through their email: [isu.wef@iastate.edu](mailto:isu.wef@iastate.edu)

Copy and layout by Paige Anson



However anyone can join, Portz said.

For Weber and Portz, reasons they joined the club were based on wanting to support water's role in sustaining all life.

"Everything is interconnected. There is the soil, the plants, the animals, the people, even microbes that are all a part of this big web. They are all connected in one way or another through the water. If your water is not clean, that affects everything else," Weber explained.

Some tips for making a physical difference in water and soil conservation that Portz and Weber would recommend include simply thinking about all repercussions of land use.

Whether you are fertilizing a yard, garden, recreational area or farm, considerations of where your fertilizer, its nitrates and phosphates, are running off into should be considered, Weber said. Even being mindful of weather when fertilizing is a recommendation Weber would make.



Photo courtesy of the Soil and Water Conservation Club

"Often you rely on a good rain to get that fertilizer to dissolve and then move into your soil. If you have torrential rain it will just wash it off," Weber said.

One takeaway anyone can get from attending a club meeting is one that Portz recounted.

"No matter what you do, you can make an impact with soil and water conservation. Even if you are just listening to someone talk about it and are learning how to think about water and soil differently," Portz said.

### **Water Environment Federation, ISU Student Chapter**

ISU's student chapter of the nonprofit organization the [Water Environment Federation](#) promotes water

accessibility as it works to provide education and training for aspiring water quality professionals.

One experience the student organization offers is the annual opportunity to compete in the [Central States Water Environment Association Student Design Competition](#) every April, the club's president, Peiyang Li, described.

The competition evaluates student chapters' preliminary designs for waste water management improvements.

In April 2019, ISU's chapter presented a preliminary waste water improvement strategy in Madison, Wisconsin that was based on improving nutrient removal for the Ames Water Pollution Control Facility, Li said.

This strategy succeeded in allowing the club to represent the Iowa Water Environment Association at the national level of the competition, which was held in Chicago, Illinois this past September.

Although the club did not place last year, members look forward to continuing to develop their professional experience when they present again at this year's competition, Li said.

Who should join the club? Li recommends anyone who is interested in a career in waste water management and wants to develop their professional portfolios.

"This club might provide great opportunity for you. We travel to conferences. We compete. We have guest speakers. You will learn a lot about water [systems]," Li said.

For example, some people may not know is that Ames has two water treatment facilities. One for drinking water ([Water Treatment Plant](#)) and one for waste water treatment ([Water Pollution Control Facility](#)), Li said.

As the students in these organizations have done, anyone can learn more about their water sources and systems. They can also learn how to better engage, educate and empower themselves in ensuring a future with sustainable and accessible water resources.



Photo courtesy of ISU's Student Chapter of the Water Environment Federation





# TIPS TO TRAVEL SUSTAINABLY

## GREENING LOCAL, DOMESTIC OR ABROAD

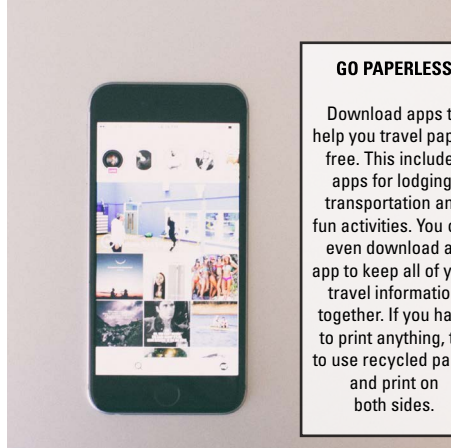
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### UNPLUG YOUR HOME AND OFFICE

Before you travel, pull the plug on your appliances. There's no need to leave your TV or lamp plugged in. **In addition**, if you'll be gone for a longer time, pay it forward and donate any perishable foods you won't be able to eat before leaving to fresh food pantries.

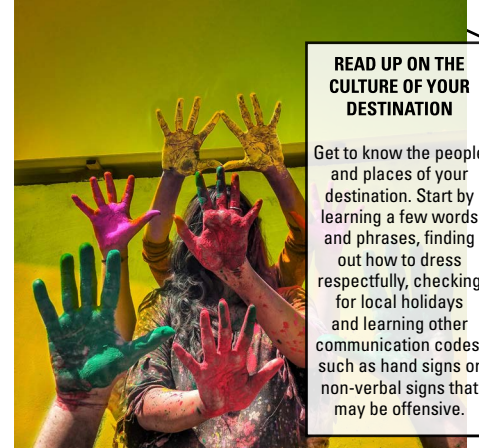
IMPACT: LOW EFFORT: LOW COSTS: FREE



### GO PAPERLESS

Download apps to help you travel paper-free. This includes apps for lodging, transportation and fun activities. You can even download an app to keep all of your travel information together. If you have to print anything, try to use recycled paper and print on both sides.

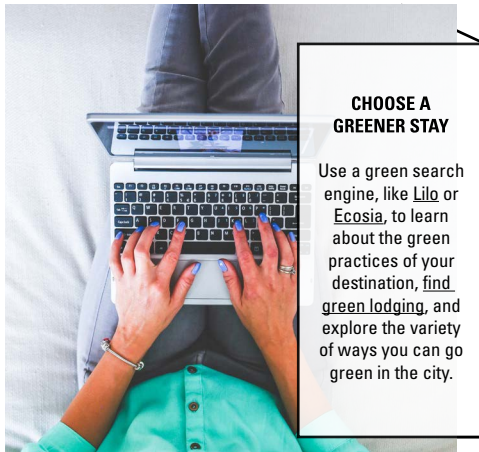
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### READ UP ON THE CULTURE OF YOUR DESTINATION

Get to know the people and places of your destination. Start by learning a few words and phrases, finding out how to dress respectfully, checking for local holidays and learning other communication codes, such as hand signs or non-verbal signs that may be offensive.

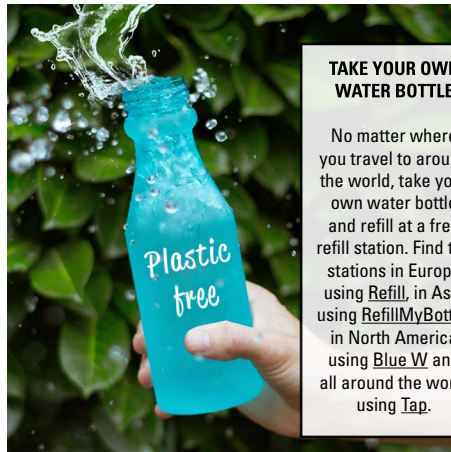
IMPACT: MEDIUM EFFORT: LOW COSTS: FREE



### CHOOSE A GREENER STAY

Use a green search engine, like [Lilo](#) or [Ecosia](#), to learn about the green practices of your destination, find green lodging, and explore the variety of ways you can go green in the city.

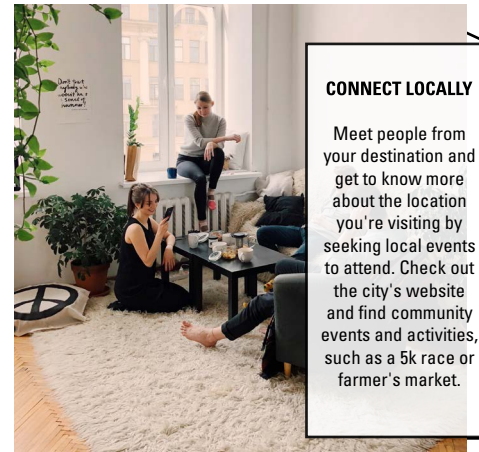
IMPACT: MEDIUM EFFORT: LOW COSTS: FREE/LOW



### TAKE YOUR OWN WATER BOTTLE

No matter where you travel to around the world, take your own water bottle and refill at a free refill station. Find the stations in Europe using [Refill](#), in Asia using [RefillMyBottle](#), in North America using [Blue W](#) and all around the world using [Tap](#).

IMPACT: MEDIUM EFFORT: MEDIUM COSTS: FREE



### CONNECT LOCALLY

Meet people from your destination and get to know more about the location you're visiting by seeking local events to attend. Check out the city's website and find community events and activities, such as a 5k race or farmer's market.

IMPACT: MEDIUM EFFORT: MEDIUM COSTS: SAVE



### EAT FOOD THAT'S TOO GOOD TO GO

Save money, prevent food from going to waste and enjoy a delicious meal by using the app [Too Good To Go](#). It connects businesses in 15 countries who have surplus food at the end of the day to users who want to collect it.

IMPACT: LOW EFFORT: MEDIUM COSTS: SAVE/FREE



### PACK LIGHT

Reduce the amount of fuel used during travel by packing lighter. Less baggage reduces the amount of pressure put on your method of travel, resulting in less fuel emissions used. Due to extra weight, most flights carry 1% more fuel than needed, resulting in 0.3% and 0.5% more fuel being burned than necessary.

IMPACT: HIGH EFFORT: MEDIUM COSTS: SAVE



### SWAP BEFORE TRAVELING

In lieu of going shopping for brand new clothes and items, shop your friends and families closets for things you might only use/wear once, or that you don't really need but would like. Invest that saved money into experiences or save it!



# PURSuing ZERO WASTE AT IOWA STATE

## A MESSAGE FROM ISU'S RECYCLING COORDINATOR

### STRATEGIC APPROACH TO WASTE MINIMIZATION AND REDUCTION THROUGH ZERO WASTE

Iowa State University is on a mission to become a zero-waste campus by keeping at least 85% of its waste out of the landfill by 2025. Recycling Services' approach in achieving this is through reducing the amount of waste produced, reusing materials repeatedly, and recycling items into new products (composting food waste into soil compost). Our focus is to continue promoting the three R's: Reduce, Reuse and Recycle/Compost. This model is vital in achieving an effective waste minimization/zero-waste program.

#### WHAT IS ZERO WASTE?

Zero waste is a ***lifestyle, philosophy, movement, and solution*** to reduce consumption, minimize waste, and maximize recycling. It is a process aiming to eliminate rather than manage waste. Not only is zero waste about recycling and diversion from the landfill but it streamlines production and distribution systems to prevent waste from being produced in the first place.

#### WHY PURSUE ZERO WASTE AT IOWA STATE?

Pursuing a zero-waste culture at Iowa State is a great and effective avenue to actively engage the entire campus community towards a robust participation in recycling and enhance sustainability education.

#### ZERO WASTE TEAM

The zero-waste team at Iowa State University is a volunteer-based group put together by Facilities Planning and Management (FPM) Recycling Services and is comprised of faculty, staff, and students who are passionate about the university's zero waste efforts of achieving at least 85% diversion from the landfill by the year 2025.

The team serves as advocates for the zero waste program across campus to engage peers and colleagues in their respective departments and buildings. They will also help volunteer during athletic events to educate fans.

#### ZERO WASTE INITIATIVES AT IOWA STATE

##### ZERO WASTE TALK SERIES

As part of our zero waste engagement series, Recycling Services is offering a presentation called Zero Waste Talks to help departments and student clubs learn more about Iowa State's zero-waste efforts. Interested departments can schedule the presentations by emailing [recycling@iastate.edu](mailto:recycling@iastate.edu).

#### RECYCLEMANIA

Iowa State University is participating in its second RecycleMania, a large eight week collegiate recycling competition managed by the National Wildlife Federation.

Schools compete in several categories based on the weight of recyclables, food organics and waste collected. Iowa State is entering the per capita classic contest, which calculates the paper, cardboard, bottles, and cans recycled on a per person basis.

The competition will help the university to benchmark ISU's efforts against the best recycling universities in the U.S. and Canada, and continues until March 28.

#### MOST FAVORED OPTION

FOCUS

#### REDUCE

Lower the amount of waste

#### REUSE

Use materials repeatedly

#### RECYCLE

Make new with the old

#### RECOVERY

Make energy from waste

#### LANDFILL

Safe disposal of waste

#### LEAST FAVORED OPTION



**AYODEJI OLUWALANA** is Iowa State University's Recycling Coordinator. Read more about his zero-waste vision in the [Spring 2020 Recycling Newsletter](#).



# NOW YOU KNOW

## HYDRATING LIFE ON LAND AND BELOW WATER

About 71% percent of the Earth's surface is covered by water. Of that, 3% is freshwater and suitable for consumption by humans, animals and most plants. Still, less than 0.5% is accessible for consumption.

This limited access to freshwater makes its cause and conservation crucial. Everyone requires it. Humans are made up of 60% water and need to drink, on average, between 91 and 125 oz. daily. Animals (from dogs to snakes) need water to complete a variety of bodily functions. Plants need water to grow.

Despite the requirement for freshwater, the reality is those who need access do not have it. The demand for water outpaced population growth in the last century, and the supply-demand gap

continues to widen, with freshwater being used for more than public supply, including irrigation, industrial processes, electricity production and manufacturing.

The diversity of freshwater demand has led to water scarcity on all continents, which can occur for different reasons. In some places, lack of water is due to a physical shortage. In others, it's due to institutions failing to provide regular access to water or lacking adequate infrastructure.

Until these issues are resolved, 785 million people will continue to live without basic drinking water services. Over 2 billion people will continue to live in countries experiencing high water stress. Half of the world's population will continue to experience severe water scarcity at least one month every year. And 40 states in the U.S. can anticipate water shortages by 2030.

In 2015, the United Nations recognized this as a huge problem and established Sustainable Development Goal 6, with the goal of ensuring access to clean water for all.

In addition to focusing on freshwater access, a target of the goal is to ensure accessible water is also clean.

Without clean water, millions of people die from malnutrition and diarrheal diseases. According to the Centers for Disease Control and Prevention, unsafe drinking water, inadequate availability of water for hygiene and limited access to sanitation contributes to approximately 88% of all diarrheal diseases.

Along with affecting health, water and sanitation also impacts the economy.

Every \$1 invested in water and sanitation results in a gain of \$8 through averted healthcare costs and an increase in productivity.

The World Health Organization also found that investing \$1 in water, sanitation and hygiene education can reward countries

with better health and an economic gain between \$3 and \$34 from reduced workforce absenteeism due to sickness.

Families are also impacted by a country's investment in clean water and sanitation. According to WaterAid, those who make the least money tend to pay the most for safe water. This results from people living in extreme poverty do not have access to a government-backed water source and resort to accessing water from unofficial or illegal sources.

For example, in Madagascar, a person who gets water from a tanker truck can spend as much as 45% of their daily income for the World Health Organization's daily recommendation of 50 liters of water. In Cambodia, some of the poorest residents spend up to 108% of their income on water.

Paying this much for water takes money away from other basic needs, such as food, shelter, health and education. Because of this, many people choose to get water themselves, which also indirectly takes money away from their households.

To illustrate, some African households spend ¼ of their day getting water, equating to 40 billion annual working hours being taken from their income.

If families were able to afford clean water, they could instead save 1,000 hours to work, rest, study, care for children, and participate in community activities, worth an annual economic value of \$100 billion.

To help everyone around the world achieve that economic value and obtain affordable, clean water, organizations such as Water for Good and One at a Time step up.

Individuals are also able to make a difference by participating in national and international campaigns that focus on clean water, sanitation and hygiene, such as World Water Day (Mar. 22) and World Toilet Day (Nov. 19).

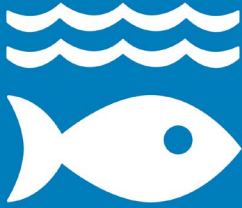
Iowa State also has a variety of student organizations that focus on the targets areas of Sustainable Development Goal 6. Read about two on page 6, and find others on the ISU student organization database.

## 6 CLEAN WATER AND SANITATION





# 14 LIFE BELOW WATER



The remaining 97% of water on Earth can be found in the ocean, which is home to nearly 200,000 identified species and an estimated million more undiscovered. The ocean also serves as the world's largest source of protein, providing 3 billion people around the world with fresh seafood.

Oceans also play a large role in the global ecosystems that make Earth a habitable place for humans, animals and plants. This includes rainwater, weather, climate, coastlines, a lot of the food we eat and even the oxygen in the air.

Due to this extensive interconnectedness, the ocean is something imperative to conserve and protect, just like freshwater.

In addressing this, the United Nations developed Sustainable Development Goal 14, with the theme of conservation and

sustainable usage of the world's oceans, seas and marine resources.

Goal 14 has seven targets, which are to:

1. reduce ocean pollution
2. sustainably manage marine and coastal ecosystems,
3. minimize and address the impacts of ocean acidification,
4. regulate harvesting and overfishing,
5. conserve at least 10% of coastal and marine areas,
6. prohibit specific fishery subsidies that contribute to overcapacity and overfishing, and
7. increase economic benefits to Small Island Developing States and developing countries from the sustainable use of marine resources.

Each of Goal 14's targets contribute to the maintenance of the key natural resources oceans provide, of the support oceans provide in climate change mitigation and of sustainable tourism and recreation.

An example of this is the United Nation's focus on preserving coral reefs, one of the world's most diverse ecosystems, addressing targets two, three and five.

According to Ocean Society, coral reefs support vast amounts of marine life, help prevent coastal erosion, offer protection from storm surges and support jobs ranging from fishing to tourism. In addition, more than 500 million people rely on the reefs for food, income and coastal protection, reaching an economic benefit of \$3.4 billion in the U.S alone.

Despite these benefits, the destruction of coral reefs has been ongoing. Almost 20% have been destroyed without any recovery potential; 24% are under imminent risk of collapse due to human interference; and 26% are under a longer term threat of collapse.

In order to combat this destruction, the UN Environmental Programme and Regional Seas partnered together in 2014 to create the Global Coral Reef Partnership, in which they promote and demonstrate proper

ecosystem-based marine management in coral reefs, encompassing four substantive and institutional areas.

Another area the United Nations is focusing on to achieve targets one and seven is the reduction of marine pollution, especially from land-based activities.

Municipal, industrial and agricultural waste and run-off accounts for as much as 80% of all marine pollution. Plastic also accounts for 17.6 billion pounds, equal to 57,000 blue whales, of annual marine pollution.

This poses a huge risk to ocean biodiversity, many times causing seabirds and marine species to become entangled or suffer from indigestion, which kills them or affects their reproduction.

Organizations such as Greenpeace USA, Marine Sanctuary and Plastic Oceans work according to Goal 14 to lessen these impacts.

Organizations like these are also guided by Goal 14 to help achieve targets four and six, with the goal of stopping improper marine management, which leads to overfishing.

Overfishing has resulted in two-thirds of large fish being removed from the ocean, and one in three fish populations collapsing since 1950.

To curb this, countries have enacted laws that dictate how and when people can fish. The U.S. has been a global leader in the fight and has enacted laws like the Magnuson-Stevens Act, which has helped fish rebound since the 1980s and '90s.

In discussing the entirety of Goal 14 milestones and achievements, such as the Magnuson-Stevens Act, the United Nations hosts the annual Ocean Conference. Individuals are encouraged to also get involved in the implementation of Goal 14 by signing pledges and joining organizations that focus on ocean conservation.

No matter the level or detail of involvement in Goal 6 or Goal 14, every action makes a difference – both to the millions of people who seek access to freshwater and the life underwater relying on the most diverse ecosystem the world has to offer.



# GREEN-IT-YOURSELF

HYDRATE YOURSELF AND OTHERS WITH THESE GREEN IDEAS

## HUMMINGBIRD FEEDER

**Supplies:** Two feet of 6 or 8 gauge copper wire, small glass bottle with a narrow neck, bling or embellishments, hummingbird feeder tubes, hummingbird nectar, wire cutters, towel

**Instructions:**

1. Using the pliers (and a towel placed around the end of the wire to keep from scratching the copper), clamp the wire and bend a loop on one end.
2. Start at the neck of the bottle and twist the wire around the bottle. Add another loop in the wire at the top of the bottle for hanging.
3. Add any embellishments (especially red ones!) to help attract hummingbirds, then fill the bottle with a hummingbird nectar solution (1 part sugar dissolved in 4 parts water) and secure the bottle with a feeder tube.
4. Make sure to completely fill the bottle for a tight seal. Hang the feeder outdoors and enjoy watching the birds eat!
5. For feeding tips and precautions, visit the [Mosaic Birds website](#).



## WATER BOTTLE TRACKER

**Supplies:** paint pack, reusable water bottle, word stencil, paper towels, tape

**Instructions:**

1. Create a word pattern on paper sized to fit your water bottle (not too big, not too small), then roll it to fit inside the bottle to use for tracing.
2. Test the paints on a paper towel to get a feel for them before decorating your bottle. To create a super fine tip for wording, wrap a piece of tape around the paint bottle tip in a cone shape, leaving a small hole. Alternatively, you can use paint markers.
3. Trace over the paper wording with paint. If you make a mistake, wipe away the wet paint with a damp paper towel. Once finished, let the paint dry.
4. Use other paint colors to create squiggles between each set of words for tracking water levels. Let dry completely.



## INDOOR WATER GARDEN

**Supplies:** Aquatic plants, glass jar, aquarium stones, water, aquarium plant fertilizer

**Instructions:**

1. Wash aquarium stones thoroughly with water and add half to the jar.
2. Rinse aquatic plants in room temperature water, then organize in the jar. If your plants came potted, leave in the pot. Add the remaining stones to secure and cover the roots and/or pot of the plants.
3. Carefully add room temperature water to cover the plants. If your jar has a lid, drill holes in it or completely leave it off. Do not place the jar in direct sunlight.
4. After a week, begin using aquarium plant fertilizer.
5. If you need to top off the water (or if it becomes murky and needs to be replaced), use distilled water, collected rain water or tap water that has been sitting out, dechlorinating, for at least 24 hours.



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# RECIPES

## HYDRATING DISHES TO KICK-OFF SPRING



### EGGPLANT & ZUCCHINI SALAD

**Ingredients and Supplies:** 1½ lb. eggplant, 2 large zucchini, 1½ tbsp. olive oil, ½ tsp. kosher salt, ½ tsp. ground black pepper, one 14 oz. can of chickpeas (drained and rinsed), ¼ C. crumbled feta cheese, 5 large mint leaves (sliced), 1 juiced lemon, oven or grill

**Servings:** 6 servings | lasts for 3-5 days, refrigerated

#### Directions:

1. Preheat the grill or oven broiler to medium heat. Slice the eggplant into ¾-inch slices and cut the zucchini in half crosswise, then into ½-inch slices.
2. Place the eggplant and zucchini on a baking sheet. Brush both sides with olive oil and season with salt and pepper.
3. Grill until the vegetables are tender but not over cooked (4-5 minutes per side).
4. Cut the eggplant and zucchini into bite-sized pieces and share in a serving bowl.
5. Add the chickpeas, feta cheese and fresh mint to the bowl. Squeeze the lemon over it all and stir gently to combine. Serve warm or at room temperature.



### LEMON ORZO PASTA SALAD

**Ingredients:** 1½ C. dry orzo pasta, 2 tbsp. olive oil, 1 juiced and zested lemon, 1 large cucumber (chopped), 1 tbsp. fresh parsley, ½ C. feta cheese, ground black pepper (to taste), salt (to taste)

**Servings:** 4 servings | lasts for 3-5 days, refrigerated

#### Directions:

1. Bring a large pot of salted water to a boil. Cook the orzo approximately 9 minutes.
2. Drain the pasta and let cool for 2 minutes. Toss with olive oil, lemon juice and zest, cucumber, herbs and feta cheese.
3. Season with salt and pepper (to taste). Serve chilled or at room temperature. Can be made a day in advance and kept in the refrigerator.



### STUFFED CELERY STICKS

**Ingredients:** 12 pre-cut celery sticks (or celery stalks cut into sticks), ½ C. plain hummus, 1 plum tomato (diced), ¼ C. cucumber (diced), ⅓ C. kalamata olives, 3 tbsp. feta cheese

**Servings:** 12 servings | lasts for 7 days, refrigerated

#### Directions:

1. Wash the celery sticks and place on a platter. Using a spoon or knife, scoop the hummus out and spread over each stick.
2. Sprinkle the diced tomatoes, cucumber, olives and feta cheese on top of each celery stick. Enjoy immediately or refrigerate.



# MONTHLY CHALLENGE

## OPTIMIZE YOUR HYDRATION

Every living being on Earth needs to stay hydrated. For humans, adequate hydration regulates body temperature, helps prevent infection, delivers nutrients to cells, keeps organs functioning properly and improves sleep quality, cognition and mood.

While experts have traditionally recommended drinking eight, 8 oz. glasses of water a day to stay hydrated, the National Academy of Medicine recommends differentiating the amount a person drinks based on their gender. Men are recommended to drink 125 oz. (12 cups) a day and women, 91 oz (9.5 cups). This

amount increases for those who regularly work out and decreases to seven cups for those age 70+.

Experts also recommend to avoid drinking water on an empty stomach because it is likely not being retained by the body. Instead, space your water consumption out around meals. Although these recommendations may seem like a lot to keep up with, use this month's challenge as an inspiration and a mini how-to kickstart optimizing your monthly hydration! As a fun first step, learn how to make your own water tracker bottle on [page 12!](#)

### ACTION 2

Drink 4 oz. of water per hour

### ACTION 4

Add flavored ice to your water

### ACTION 6

Try carbonated water infused with fruit

### ACTION 8

Drink water before, during and after exercising

### ACTION 1

Download a hydration app on your phone and add alerts to stay on track

### ACTION 3

Snack on hydrating fruits and vegetables like cucumbers, apples and strawberries

### ACTION 5

Drink water 30 minutes before you eat and 1 hour after you eat

### ACTION 7

Drink water just after waking up and right before going to bed

For more hydration tips, visit [Real Buzz](#).

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# GREEN OPPORTUNITIES

## VOLUNTEER IN THE VIRGIN ISLANDS



Volunteer for the nonprofit Common Tides and provide free summer marine science and sailing programs to children in the U.S. Virgin Islands. This opportunity is perfect for anyone looking to learn more about sailing, exploration, marine conservation or education. A fee is required for food and stay on the sailboat and training. Fundraising opportunities are encouraged. Learn more on [commontides.org](http://commontides.org) and check out Common Tides' [Intern Video](#). To apply visit Common Tide's volunteer [page](#).

## INTERN IN URBAN CONSERVATION



Help keep City of Ames conservation projects going strong as an Urban Conservation Intern May 2020 - Dec. 2020. Roles would include: inspecting practices for proper function, performing maintenance, trash pickup, directing volunteers and developing and implementing public education and outreach on conservation projects. Interns can expect approximately 10-15 hours of paid work per week with potential for 40 hours per week in summer months. Experience or knowledge with Iowa native plants and habitat is a plus. To apply and to learn more, visit [glassdoor.com](http://glassdoor.com).

## JOIN IN A DAY OF UNPLUGGING



Explore, discover and imagine with Story County community members on March 6, the National Day of Unplugging. Story County offers community members three "unplugged" events to help people spend time together, including: a community coffee (7-8:30 a.m. | Conservation Center), a lunch and learn (12-1p.m. | McFarland Park) and a community campfire event (6:30-7:30p.m. | McFarland Park). Find more information on [NationalDayForUnplugging.com](http://NationalDayForUnplugging.com) and the Story County, Iowa government [website](#).

## TRANSFORM GENDER AND SOCIETY



Transform how gender is perceived in society at this cross-disciplinary Iowa conference. Present research, creative work, pedagogy, activism and thematic pieces relating to women's, gender and sexuality studies. The 2020 Transforming Gender and Society conference will take place April 4 at the Memorial Union at Iowa State University.

Student presenter proposals are due by 11:59 p.m., March 12. For more information, visit ISU's Women & Gender Studies [webpage](#).

## ACT FOR ST. JUDE



Join the fight against childhood cancer by attending Lambda Theta Alpha Latin Sorority, Inc.'s "Acts for St. Jude" philanthropy event, April 10, 6-9 p.m. in the South Ballroom of the Memorial Union. Want to do more? Sign up to perform during the event. All acts are encouraged to apply [online](#) by March 27 and will help promote donations to proceeds for St. Jude Children's Hospital. Items are also being accepted for donation for the event's raffle. Questions? Email Maricela at [lta.zg.12.7@gmail.com](mailto:lta.zg.12.7@gmail.com).

## GATHER FOR WATER



Sign up to attend the 14th Annual Iowa Water Conference (IWC) April 8-9 and help pave paths to meaningful change "across the vast spectrum of water resource issues." Research posters that fit with this theme of water quality improvement are also encouraged to apply to be a part of the event's general poster session. Poster submissions are due March 25. Registration to attend (\$175) is due April 3 for the early discount. Student scholarships are available and are due March 8 at 11:59 p.m. Scholarship applications can be found [here](#) or on the [water.iastate.edu](http://water.iastate.edu) website, along with other conference information.

## MARCH FOR WATER



Pledge to walk further than usual this March, in solidarity with those who have no choice but to walk to collect water. Lace up with blue shoe laces and take the scenic route. Share progress on social media as you #MarchForWater. In sharing your steps, and by talking about this march, you will help those suffering from lack of access to healthy water sources make their voices heard on World Water Day (March 22). Learn more about water insecurity and the March for Water on [wateraid.org](http://wateraid.org).

## INTERN FOR SUSTAINABILITY



Refine your professional skills and contribute to various sustainable initiatives as an Environmental Sustainability Intern for Perishable Distributors of Iowa in Ankeny, Iowa. This 40 hour per week summer internship involves working with a director on multiple zero-waste initiatives and developing, reporting on and implementing sustainability practices within the company. Applications can be filled out on [indeed.com](http://indeed.com).



# MARCH CALENDAR

05

## **Creating Global Understanding Roundtable Christian Petersen Art Museum | 5 - 6 p.m.**

Explore the ISU World Language and Culture *Creating Global Understanding* art exhibit and listen to the five contributors share their experience creating it. Gallery guide available. [Register on the museum website](#). Cost: free

## **Symphony of Diversity**

**Stephens Auditorium | 7:30 - 8:30 p.m.**

Celebrate a diverse world with the Iowa State University Orchestra as they perform music from uncommon artists and composers, under conductor Jonathan Govias. Doors open at 6:45 p.m. and is open to the public. Cost: free

07

## **International Women's Day**

**Ames Public Library | 2 - 4 p.m.**

Unite with members of the Ames community for the annual celebration of International Women's Day. Reflect on this year's theme of #EachforEqual as you enjoy a performance of the 2019-2020 season of "HERoic Stories," light refreshments and small conversations with others. Cost: free

08

## **Ames Reads Leopold**

**Ames Public Library | 2 - 4 p.m.**

Explore the conservation and land ethic writings of Aldo Leopold through the voices of guest readers. Attendees are also invited to record a 10-minute story inspired by Iowa's nature through the Common Ground Project during the event. Cost: free

09

## **Living in the Future's Past Documentary**

**Pioneer Room, MU | 6 p.m.**

Engage your mind with the United Nations Gold World Medal winning documentary "Living in the Future's Past," and challenge yourself to think about the future, sustainability and the world you want to create and live in. A discussion will follow the film. Cost: free

14

## **March Madness Small Business Event**

**1827 217th Rd., Boone | 9 a.m. - 4 p.m.**

Support small Iowa businesses at the 7th-annual March Madness flea market event. Shop from more than 65 crafters and direct sales vendors, enjoy refreshments from concession stands and win parking lot and door prizes. Avoid long lines by [buying a ticket on the event website](#) or pay at the door. Cost: \$1

15

## **Stories to Tell My Daughter**

**2811 East 14th St., Des Moines | 4 - 6 p.m.**

Connect with women of all ages and from all backgrounds for an evening of empowerment. Listen as personal narratives of the feminine experience are shared — stories that feature love, loss, adversity and everything in between. Mothers and daughters of all ages are encouraged to attend. [Register on the event's Eventbrite page](#). Cost: \$20

17

## **DSM Human Rights Symposium Kick-Off Drake University, Olmsted Center | 6 p.m.**

Reflect on your culture and identity as you explore the intersection of race, ethnicity, culture, stereotypes and social expectation during a satirical academic presentation and workshop of "Afropuff Lederhosen: A Critically Comical Investigation of Race." Limited seating, [register early on the event's EventBrite page](#). Cost: free

26

## **Learn to Compost and Vermicompost Story County Conservation | 5:30-6:30 p.m.**

Learn about the natural processes used to turn organic material into a dark, rich humus that is great for your soil and garden from horticulturist and Iowa State Associate Professor, Cindy Haynes. Cost: \$3 per adult (kids can attend for free). [Register on My County Parks website](#) by March 24 at 4 p.m.

27

## **SciNite**

**Campanile Room, MU | 7 - 9 p.m.**

Have fun as you learn about sustainability during the second annual SciNite at Iowa State. Hosted by the Iowa State Student Government Sustainability Committee, this event will feature presentations and a variety of performances. Cost: free

28

## **Potting Party: Airplant Aesthetics**

**Reiman Gardens | 10 - 11 a.m.**

Spend an hour with horticulturist Jessie Liebhenguth and learn about the minimal, adaptable and unique airplant. Learn how to help them thrive and take some home with you. [Register on the Reiman Garden website](#) by March 26 (limit of 10 people). Cost: \$32 - members, \$40 - general public and \$27 - ISU students

30

## **City of Ames EcoChat**

**Ames Public Library | 6:30 p.m.**

Browse community and vendor booths and learn from local experts at the City of Ames last EcoChat of the spring, with the theme of Reduce, Reuse and Recycle. This EcoChat will follow four topics: Composting Pilot Program, Apartment and Backyard Composting, Zero Waste and How to Dispose of Items. Cost: free

APRIL 3 - 4

## COMING IN APRIL

### **20<sup>th</sup> Annual Stash the Trash**



**Various Locations | 1 - 5 p.m. & 8 a.m. - 1 p.m.**

Spend time with your neighbors for a community wide clean up of public spaces, neighborhoods and local parks. This year, Stash the Trash will also feature a "Trashion Show," displaying repurposed fashion designed by ISU students. Light snacks and all trash pick-up items will be provided. Check in at Reiman Gardens for supplies and locations. Cost: free

Have a sustainability highlight, accomplishment or event to share? Contact the Marketing and Communications Team!

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