

Mission in Action: Houston Zoo's Plastic Reduction Efforts



Keep Texas Beautiful
May 27, 2026



Kristin Windle

Elephant Supervisor
Houston Zoo



Andrew Fischer

Vice President, Restorative Strategies
SSA Group



Colley Hodges

Sustainability Director
Houston Zoo

Plastic Free July

Houston Zoo Staff Participation



- What is Plastic Free July?
- Why should we participate?



Plastic Free July

Houston Zoo Staff Participation



Getting Started

2016- 12 staff

2017- 165+ staff and volunteers

2018- 275+ staff and volunteers

2019- 220+ staff and volunteers



Plastic Free July

Houston Zoo Staff Participation



- How do we motivate people to join in?
 - Cater to individual motivations
 - Team challenges
 - Share ideas
 - Make room for participation at all levels

Plastic Free July



What made Houston Zoo's staff participation so successful?

- Share successes; loud and proud.
- Find passionate people to lead.
 - Team mentors
- We are not looking for perfection. Small, consistent changes make a HUGE difference.
- Celebrate successes!
 - Remind people what they've already done.



Plastic Free July

Getting Started



Start with the Big 3!

Single use straws.

Single use water bottles.

Single use plastic bags.

- Start with a jumping off point.
- This is not all or nothing!
- Drive home the why.
 - Why are you choosing to participate?
- Plan for the future from the beginning.
- Follow up at the end of the month.



Collaborative Impact



- Retail and Culinary Partners for more than 25 years!

Key Points Today



- Learn how to approach sustainability procurement challenges within your operations.
- Understand how to initiate a discussion.
- Explore the collaborative process that can uncover innovative solutions.
- Learn how to build internal sustainability culture with your staff.

Our Network of Accounts



89

Partnerships

54

Bundled Retail +
Culinary Partnerships

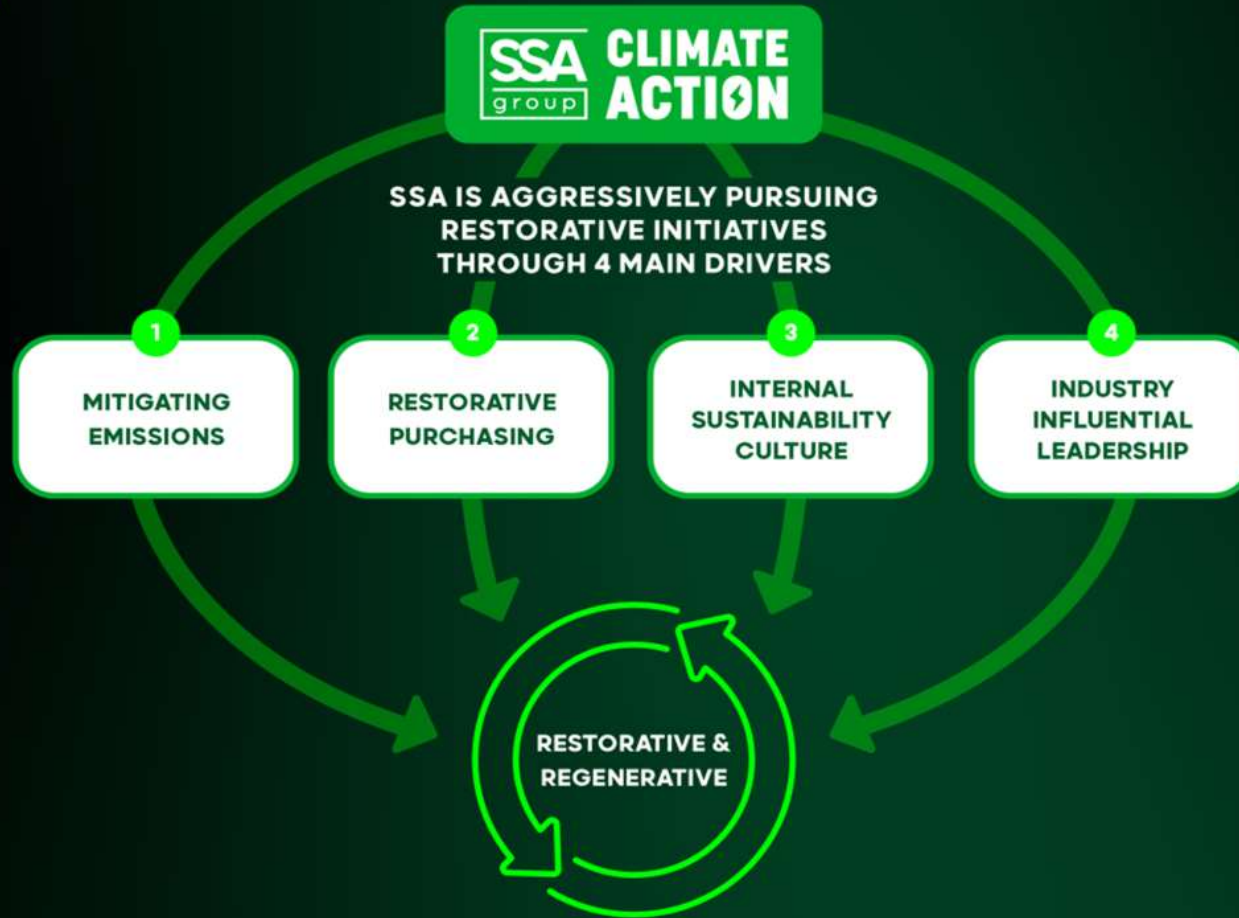
15

Admissions
Partnerships

18

Museum
Partnerships

WHAT DRIVES US?



Retail Solutions



KEY MOMENTS

Fuzz that Wuzz



USA Sea Otter



PET Turtle



2008

2009

2010

2011

2012

2013

2014

2015

2016

Soy & Kapok



SSA GM Summit:
The Future of
Conservation &
Sustainability

Houston Zoo:
Drive to offer plastic
bag alternatives
initiates

Company-wide
Community
Action Projects:
Plastic Focus

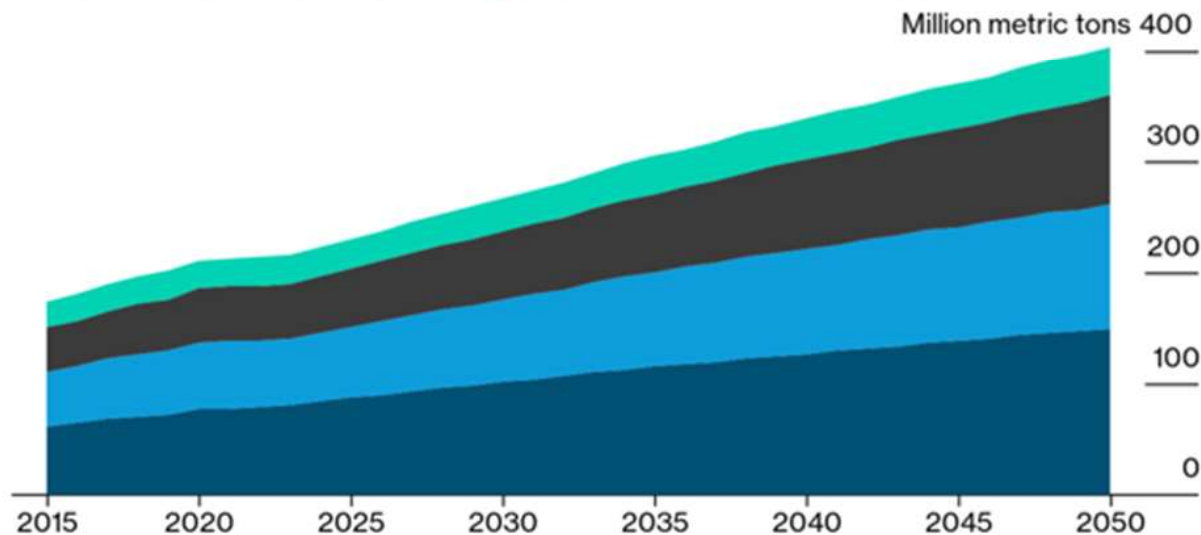
Plastics Impact



Insatiable Appetite

Demand for plastic could almost double by 2050

■ Polypropylene (PP) ■ Low-density polyethylene (LDPE)
■ High-density polyethylene (HDPE) ■ Polyethylene terephthalate (PET)



Source: BloombergNEF, Nexant.

Note: Shows outlook in BNEF's Economic Transition Scenario.

BloombergNEF

- 📍 The plastics industry expects global plastics production to reach 400 million metric tons by 2050.
- 📍 US produces the most plastic waste in the world.
- 📍 Each American discards an average of 287 pounds of plastic every year.

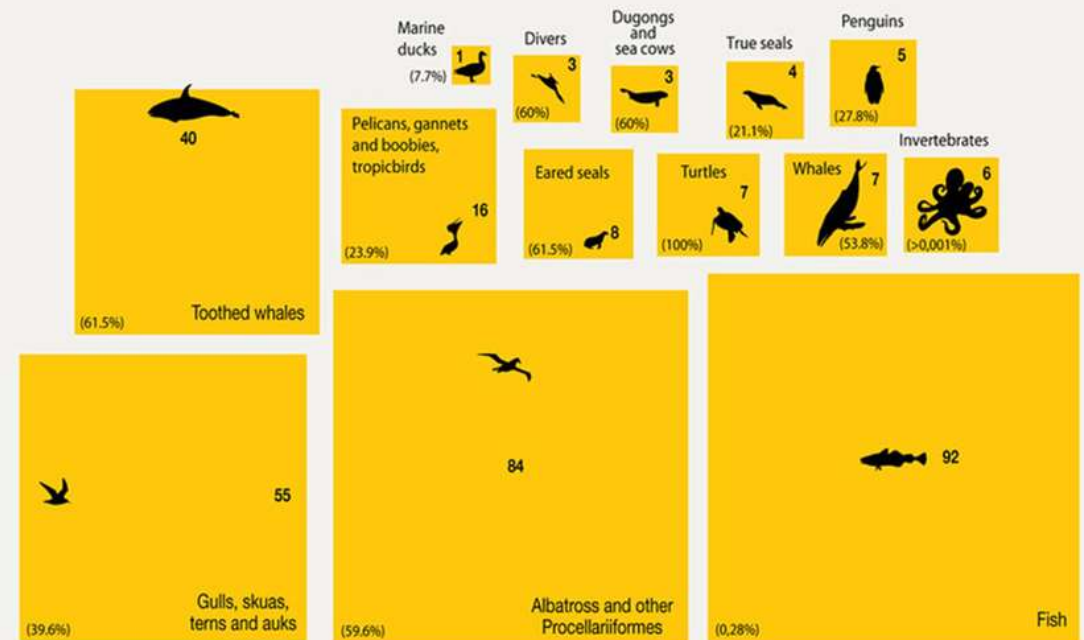
Species Impact



- Monterey Bay Aquarium Research Institute (MBARI) found microplastics at 3,000 feet below sea level.

Plasticized animal species - Ingestion

Number of species with documented records of marine debris ingestion



Source: Kühn, S., et al., Deleterious Effects of Litter on Marine Life, in Bergmann, M., et al., Marine Anthropogenic Litter, Springer, 2015

Transforming the Industry



blooloop. Twitter Instagram Facebook LinkedIn Pinterest YouTube [Work with us](#) [Sign in](#)


[Home](#) [News](#) [Directory](#) [Blooloop 50](#) [GAL](#) [Innovation Awards +](#) [About](#) [More +](#)

[Sustainability](#)

SSA Group removes single-use plastics from Monterey Bay Aquarium

Company helps to provide sustainable retail for the West Coast aquarium

News



Words: [Adam Whittaker](#) | [Share this](#)

29th Mar 2022

[Twitter](#) [Facebook](#) [LinkedIn](#) [Pinterest](#) [Email](#)



Transforming the Industry



THE HOUSTON ZOO HAS GONE
PLASTIC BAG FREE
to save Sea Turtles,
AND YOU CAN TOO!

WE WENT PLASTIC BAG FREE IN 2015
ENSURING THAT
MORE THAN 120,000
SINGLE-USE PLASTIC BAGS ARE
ELIMINATED BY 2017
SAVING



FROM INGESTING OR BEING
ENTANGLED BY PLASTICS

Here at the Gift Shop
Purchase your reusable tote bag to
use when shopping around town.



Plastic Bags Now Extinct at the Houston Zoo!

This year, the Houston Zoo made a significant step for wildlife conservation by going plastic bag free thanks to our partner, Service Systems Associates (SSA).

All Houston Zoo gift shops—run by SSA—now allow guests to choose to be completely bag-free, purchase a reusable canvas tote, or use a bag they've brought from home.

This move will keep an estimated 80,000 plastic bags from entering landfills and the environment each year. Plastic bags also endanger sea turtles and other marine animals, as the animals often mistake the plastic bags for sea jellies.

In conjunction with the move to becoming a plastic bag free organization, the Zoo released its first-ever comic book, "Saving Wildlife: Sea Turtle Edition." The comic focuses on a family visiting Galveston who finds an injured sea turtle that needs help, and also educates readers on the dangers of plastic bags in our oceans.



Our Saving Wildlife: Sea Turtles edition educates readers on how reducing plastic use helps save sea turtles in the wild.

See them. Save them.®

Our shop is now single-use plastic packaging free to protect wild sea turtles, penguins, sea lions, and sharks.

Houston Zoo


SSA Group
4,503 followers
1h • 🌐

Proud to partner with [Houston Zoo](#) on eliminating all single-use plastic packaging in our gift shops.

Houston Zoo
6,053 followers
2h • 🌐

+ Follow

To help save animals in the wild, we've eliminated single-use plastic packaging in all our gift shops! Since 2015, together with our retail and culinary partner, [SSA Group](#), we've taken steps to remove single-use plastics from the Zoo starting with shopping bags, followed by beverage bottles and straws. Now, in this next phase, plastic packaging is the focus. Read more: bit.ly/3ub74yW



Rethinking Packaging



Removed

Custom Zoo Animal Care Clinic removed plastic packaging and wrap on over **150K units**.



Reimagined

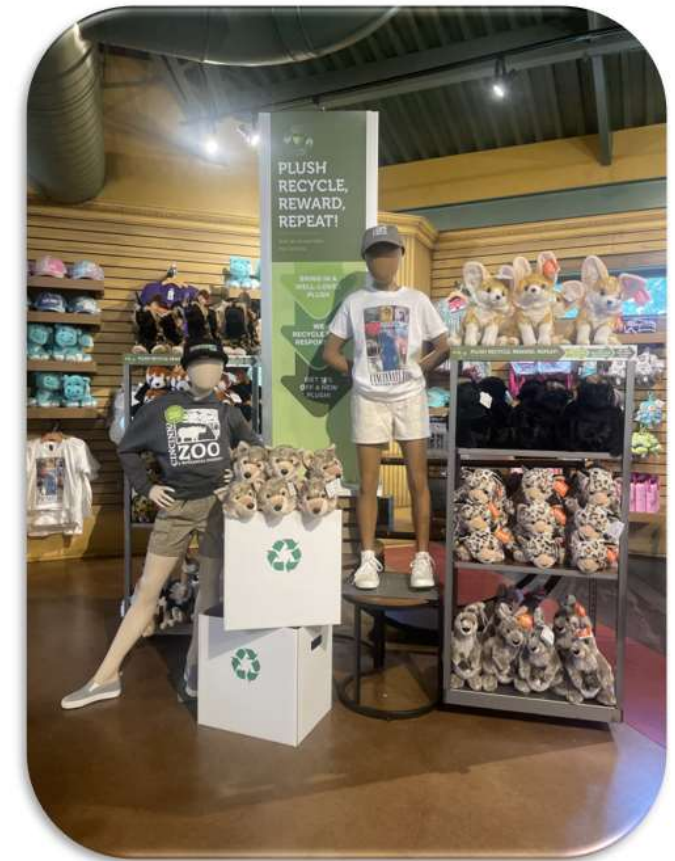
Redesigned packaging saved close to **1.5 tonnes of plastic** and **160K - AA batteries**.



Redesigned

SSA worked with hand-painted glass animal vendor to **remove all plastic packaging**.

Restorative Purchasing



Internal Sustainability Culture



Earth Day DIY Contest

Retail locations across the country competed in a do-it-yourself competition using recyclable materials to create fun and engaging displays. Educational information was also included.



Plastic Free July

Staff throughout our operations engage every year in Plastic Free July and the Eco-challenge in making sustainable personal commitments to reduce their use of plastics.

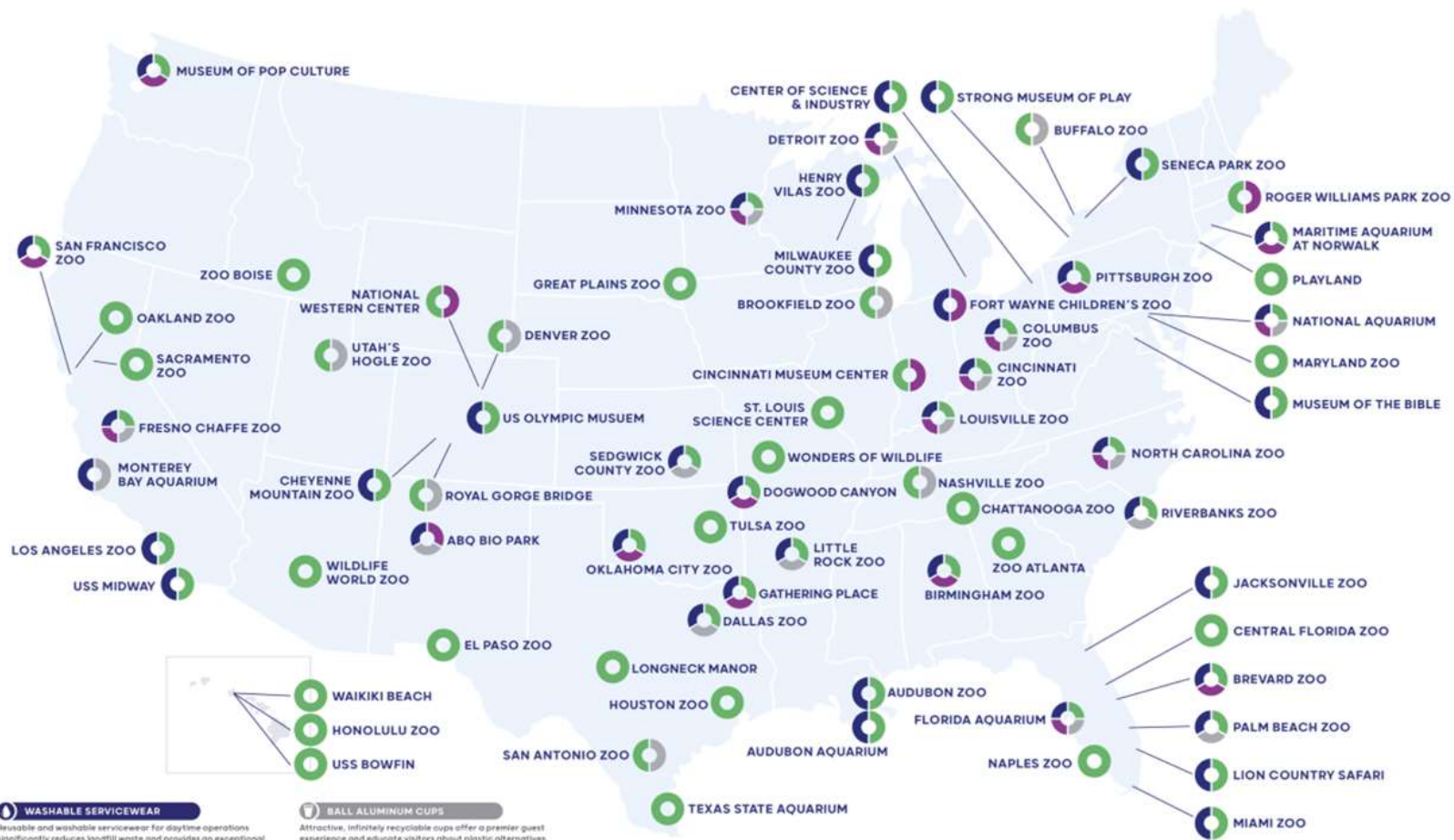


Clean-up Crew

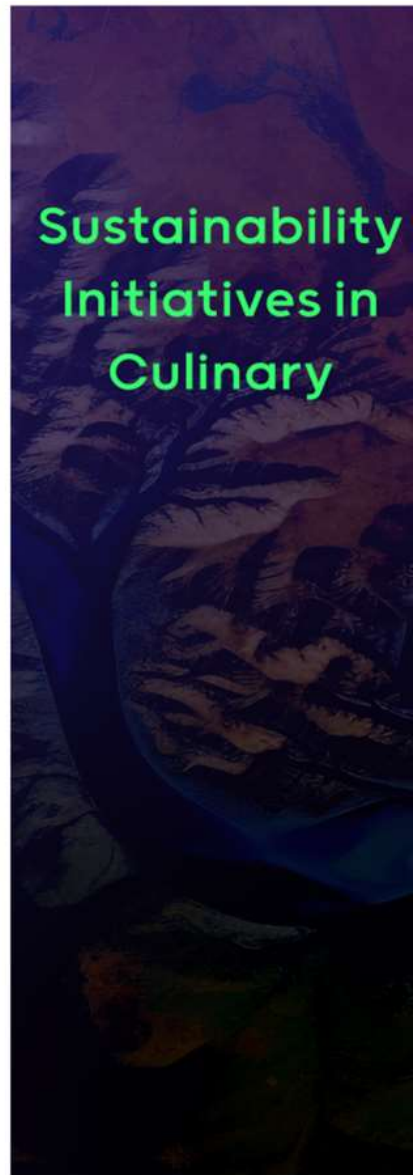
Our Clean-up Crew over the years have participated in community action programs including beach, stream, recreation trail, and parks.

Culinary Solutions





Sustainability Initiatives in Culinary



Daily Operations



Alternatives to plastic

Moving away from plastic bottles to aluminum and paper-based options



Compostables

Composting food prep scraps at several locations, and opting for compostable serviceware when washable is not available



Local Partnerships

Our menus update with the seasons, and we are proud to source ingredients from local vendors and support the communities around us

Special Events



Partner Creativity



WOOD TOKENS

These reusable wooden tokens are made out of potato peels and wood fibers. More than just a token gesture, using them helps keep pollution out of our rivers, streams, and ocean.

Join us in switching to reusable alternatives.

Please return all tokens so we can use them again and again.

Industry Challenges



Packaging



Food Safety



Consumer Habits

Industry Guidance



Proud member
Seafood Watch
Restaurant Program



MANDATORY PROGRAM CRITERIA (ALL REQUIRED)

 <p>Only reusable foodware for onsite dining</p>	 <p>No expanded polystyrene use (aka Styrofoam)</p>
 <p>No plastic bags used for takeout or to-go orders</p>	 <p>Proper recycling practices are followed</p>
 <p>Paper straws provided only upon request</p>	 <p>Beverages are not sold in plastic bottles</p>
 <p>Single-use utensils, straws, condiments, and accessory items provided only upon request</p>	



Aquarium
Conservation
Partnership

Tracking Efforts



SSA Premium Dashboard



SUSTAINABILITY OVERVIEW DASHBOARD

- Overview Dashboard
- Benchmarking Dashboard

Enter Password

Welcome to SSA Group's Sustainability Overview Dashboard! This dashboard provides a snapshot of the sustainability culture and initiatives across SSA's partner organizations. Use the drop-down menus below to filter and explore the data. Enter the password to de-anonymize the data.

Annual Attendance
(All)

81,333,000
Total Attendance

56
Partners Recycle

15
Partners Compost

38
Partners Do Beach or Park Clean Ups

30
Partners Have a Green Team

24
Partners Have Edible Food Rescue

39
Partners Use Washable Serviceware

31
Electric Kitchens

50
Partners Use Alternatives to Plastic Bottles For Water

Number of Sustainable Attributes by Partner

Number of Partners with Each Sustainable Attribute

Takeaways



- ***Recognize the challenges***
- ***Engage your vendors and partners***
- ***Be creative and innovative***
- ***Build momentum***
- ***Collaborate on goal setting***
- ***Utilize industry standards for guidance and resources***
- ***Educate and involve your staff***



Thank you!

Andrew Fischer

Vice President of Restorative Strategies, SSA Group

andrewfischer@thessagroup.com

2017 Strategic Plan



Mission, Vision and Guiding Principles

Mission, Vision and Guiding Principles

The growing challenges to the survival of wildlife and wild places necessitates a re-definition of the purpose of contemporary zoos and aquariums. Our new mission, vision and guiding principles form a powerful response to the challenges ahead, as the Houston Zoo looks toward its Centennial Anniversary in 2022 and beyond.



2017 Strategic Plan



Mission, Vision and Guiding Principles

Guiding Principles

- Be a zoo for all
- Provide exemplary animal care; assure animal welfare
- Deliver an outstanding, inspiring guest experience
- Be a workplace that provides staff development and instills empowerment, respect and teamwork
- Provide smart and fun education and learning opportunities
- Promote saving wildlife awareness and action
- Apply best business practices and sound financial management
- Inspire broad community support and collaborations
- Ensure safety for guests, staff and the animals in our care
- Operate sustainably to conserve resources; lead by example
- Change behaviors to help protect wildlife through engaging experiences that connect people



CREATE MEANINGFUL EXPERIENCES

Create meaningful experiences at the Houston Zoo that inspire our guests to take action to save animals in the wild. Engage guests of all ages in order to help them make informed decisions in their relationships with living animals and the ecosystems upon which all life depends.



OPERATE SUSTAINABLY TO BENEFIT THE ENVIRONMENT

Houston Zoo operations will be designed to minimize environmental impact, to conserve natural resources and to lead and inspire sustainability practices by guests, community organizations and businesses.

2017 Master Plan

20-year Phased Plan, Announced April 2017

MASTER PLAN, Overview, Cont.

SITE ORGANIZATION

The Houston Zoo's exhibits will be reconfigured and arranged to create distinct zones, thematically organized to illustrate biogeographic regions, providing opportunities for guests to experience encounters with animals in a naturalistic context. To the greatest extent possible, the animal communities, vegetation, geology and cultural elements in the exhibit zones will accurately reflect the habitat being represented, creating immersive environments with rich layers of interpretation.



GUEST CIRCULATION

The confusing web of pathways that Zoo guests now experience will be replaced by a simplified circulation system that will promote intuitive navigation. A clearly defined central main pathway will connect our two public entrances, and each experience zone will be explored via loop pathways that begin and end on the main pathway.



Katherine G. McGovern Texas Wetlands

Exhibit and Restaurant



Cypress Circle Cafe

Green Restaurant Certification



One of only **9** certified restaurants in Houston

STRATEGIES ADOPTED

- **No single-use plastics**
- Compostable plateware
- Energy and water-efficient equipment
- Chemical & pollution reduction
- Pre-consumer composting
- Post-consumer recycling
- Plant-based food options



Cypress Circle Cafe

Back-of-House Composting, Compostable Plateware



Single-Use Plastics Reduction

Timeline and Impact



2015: Bags



80,000 bags
eliminated per year

2017: Bottles



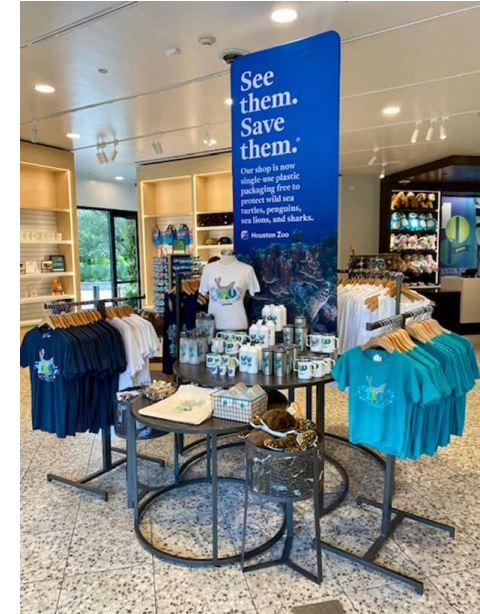
300,000 bottles
eliminated per year

2018: Straws & Lids



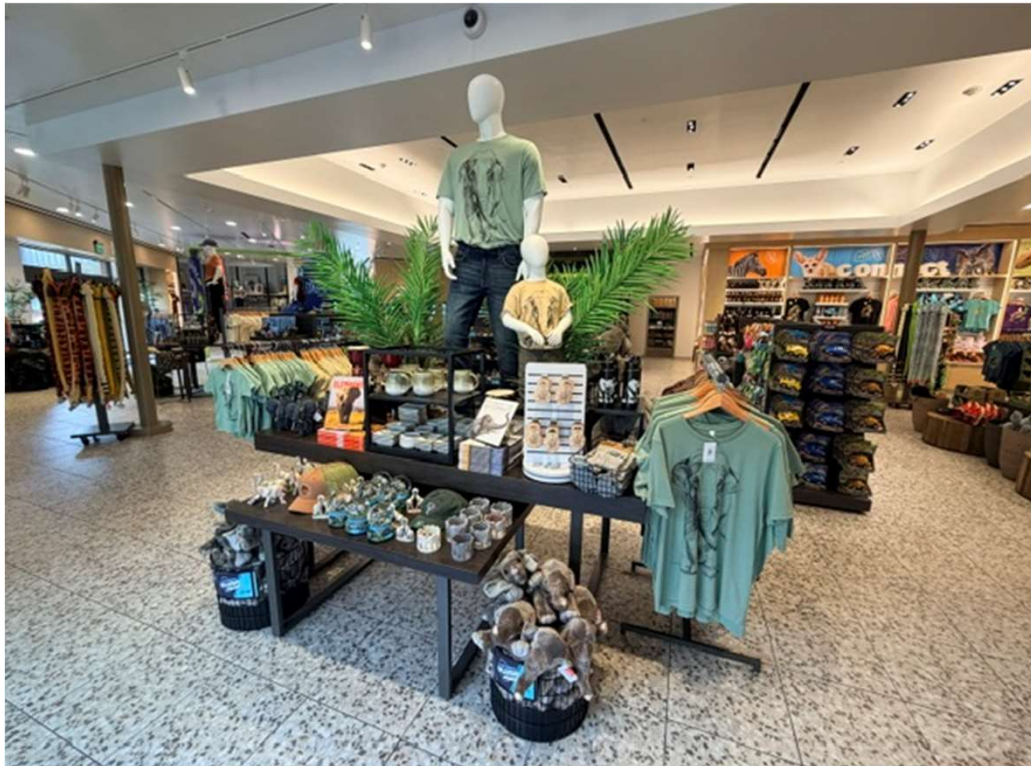
23,000 straws
eliminated per year

2022: Retail Packaging



Zoo Store

No Single-Use Plastic Packaging



Galapagos Islands Exhibit

Embedded Take-Action Message



Jack's Café & Reflections Event Center



Reduced Environmental Footprint, Including Dining



Easy and Hard Problems

Start with Low-Hanging Fruit



Houston Zoo's Identity

Mission Infused into Partnerships





Sustainability Action Plan



Operational Actions to Save Animals in the Wild

CONSERVATION

- ✓ SAFE: SAVING ANIMALS FROM EXTINCTION
- ✓ OTHER INITIATIVES
- ✓ CONSERVATION FUNDING
- ✓ FIELD CONSERVATION
- ✓ GREEN PRACTICES
- ✓ RESEARCH AND SCIENCE
- ✓ CONSERVATION EDUCATION

HOME / CONSERVATION / GREEN PRACTICES

Green Practices

AZA-accredited zoos and aquariums serve as conservation experts and are careful stewards of the natural resources utilized in their business operations.

AZA-accredited Zoo and Aquarium Green Practices

Every year, AZA-accredited zoos and aquariums provide information about their green business practices to AZA's **Green Practices** survey. Members use this database to report on relevant staffing, the sourcing of local food, reporting of greenhouse gas emissions to registries, and obtaining third-party green certifications. They also provide annual documentation and usage for:

- **Sustainability plans, policies, and related budgets**
- Energy
- Fuel for transportation
- Waste
- Water

Some of the green practices reported are publicly available; follow the link and learn more about the green business practices being implemented throughout the AZA community.

AZA Green Award

Leaders in greening their business operations are recognized with AZA's Green Award. Established in 2011, the AZA Green Award celebrates institution-wide programs that implement outstanding and/or innovative methods to reduce their business operation's environmental impact and **winning applications** are available for AZA members to read. [Read more about how to apply for the Green Award and to see a list of past awardees.](#)

English



Goals Overview

CLIMATE & ENERGY

Achieve net zero carbon emissions by 2030 (Scope 1 & Scope 2)
Reduce Scope 3 carbon emissions by 10% by 2030

WATER STEWARDSHIP

Annually use no more water than falls on our campus
Install two green stormwater infrastructure projects by 2030

RESPONSIBLE CONSUMPTION

Achieve zero waste by 2030 (90% landfill diversion)
75% of purchased goods meet Sustainable Procurement Policy by 2030

BUILT ENVIRONMENT

Build and commission two LEED certified buildings by 2030
100% of human-occupied buildings meet HZI sustainable building standards by 2030

ENGAGEMENT & AWARENESS

Maintain at least 20 LEED accredited staff members who help execute this Plan
70% or more staff report sustainability (saving wildlife) is part of their job by 2030

AZA Green Award

Top Honors for Sustainability Program 2024

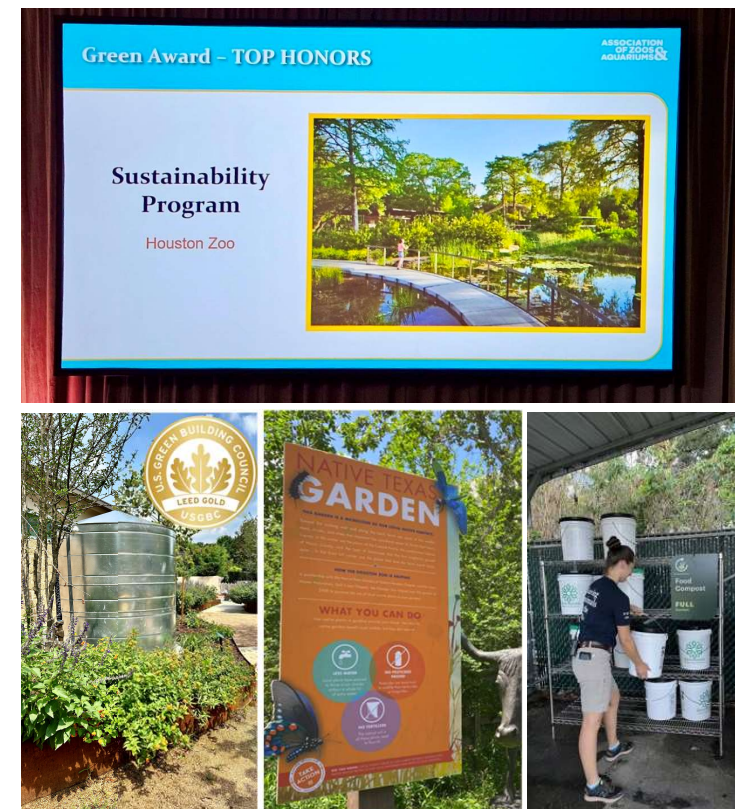


AWARD CRITERIA

Recognizes institution-wide green programs to reduce environmental impact from a business operations standpoint

AWARD SUBMISSION HIGHLIGHTS

- First two LEED Gold buildings
- **First U.S. zoo to eliminate food & retail single-use plastics**
- Strides toward 100% LED lighting zoo
- Two new rainwater harvesting cisterns
- Composting in restaurants and for special events
- Leader in small electronics and holiday lights recycling
- 30+ LEED Green Associates on staff





Kristin Windle

kwindle@houstonzoo.org

Andrew Fischer

andrewfischer@thessagroup.com

Colley Hodges

chodges@houstonzoo.org



**Houston
Zoo**