



River Ecology & Governance Task Force

December 6, 2022 3:00 PM – 4:30 PM

Agenda

- I. Task Force Goals
- II. Project Updates and Discussion
- III. Small Group Workshop: SDP Rivers Edge Policy Updates
- IV. 2022 Look Back, 2023 Look Forward
- V. End of Year Survey
- VI. 2023 Upcoming Meeting Dates + Adjourn

Task Force Objectives

Transforming Chicago's unique waterway system into a **thriving and ecologically integrated natural asset**, capable of accommodating the needs of people, requires **coordinated planning**, investment and management

Aspire to, and realize no later than 2040, inland waterways in Chicago that are **inviting, productive and living**, that **support wildlife in-stream and on their banks**, and that **contribute to our city's resiliency**

Short-Term Goals: 2021 - 2022

1. Create principles for a system-wide and neighborhood focused approach to Chicago's waterways
 - a. Adoption of principles by government partners participating on Steering Committee
2. Review current policies and create recommendations to strengthen them

Short-Term Goals: 2021 - 2022

3. Inform near-term planning opportunities to advance collective priorities
 - a. We Will Chicago
 - b. CDOT Access Study
 - c. USACE PAS Restoration Framework Plan
 - d. Industrial Corridor Modernization Process
4. Develop criteria to prioritize projects for identified funding opportunities
5. Standardize process for reviewing riverfront development projects

Project Updates and Discussion

- Bubbly Creek Restoration
Shedd Aquarium
- Research: Bulkhead Shorelines and Biodiversity
Shedd Aquarium
- South Branch Parks River Edge Access Study
CDOT and Consultant Team



South Branch share-out





Shedd Aquarium's South Branch efforts

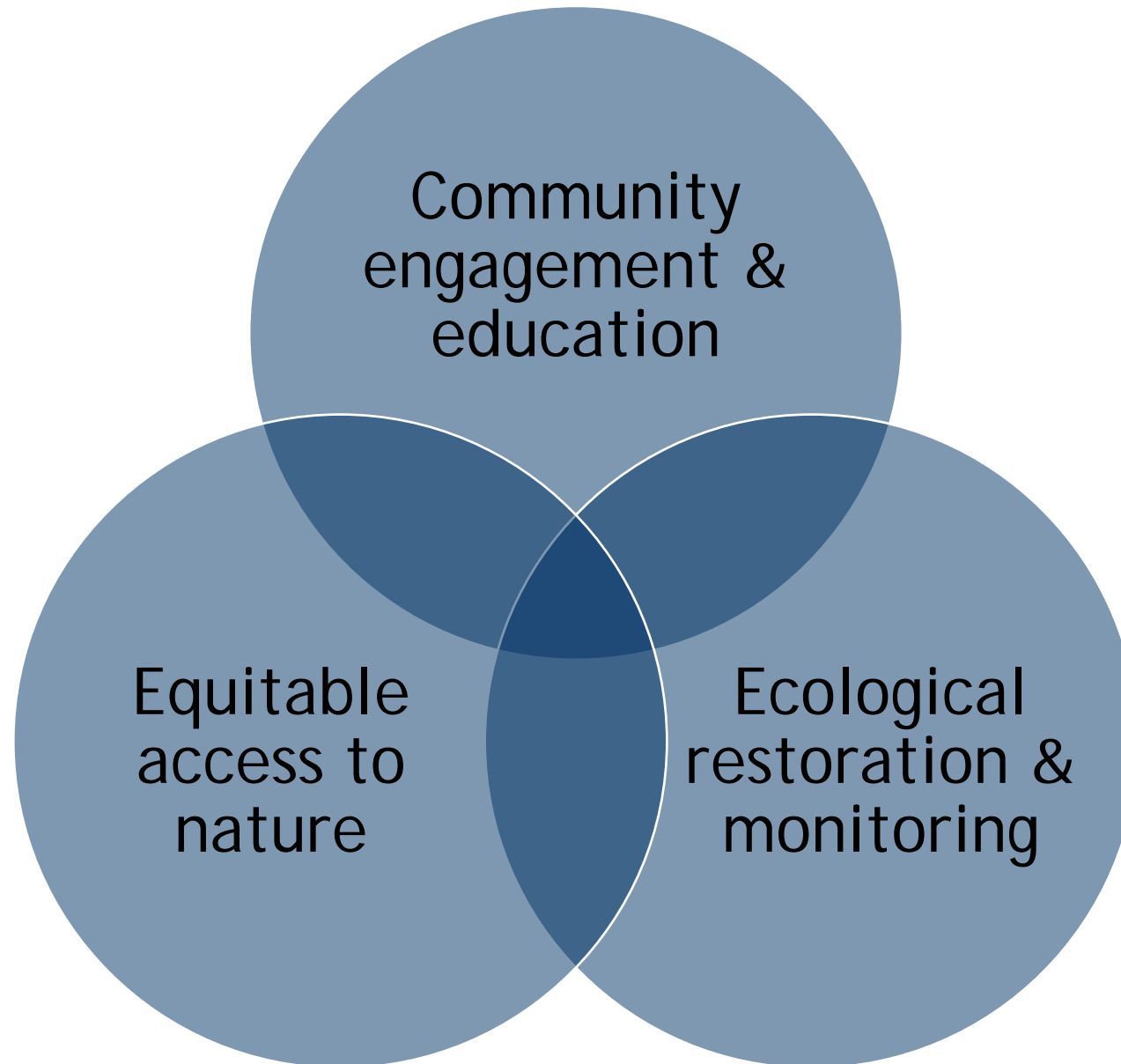
2030 Centennial Commitment: Accelerate access and connection to nature for all and act to ensure an equitable, sustainable, and thriving future for people and aquatic life.



www.sheddaquarium.org/centennial-commitment



Shedd's goals









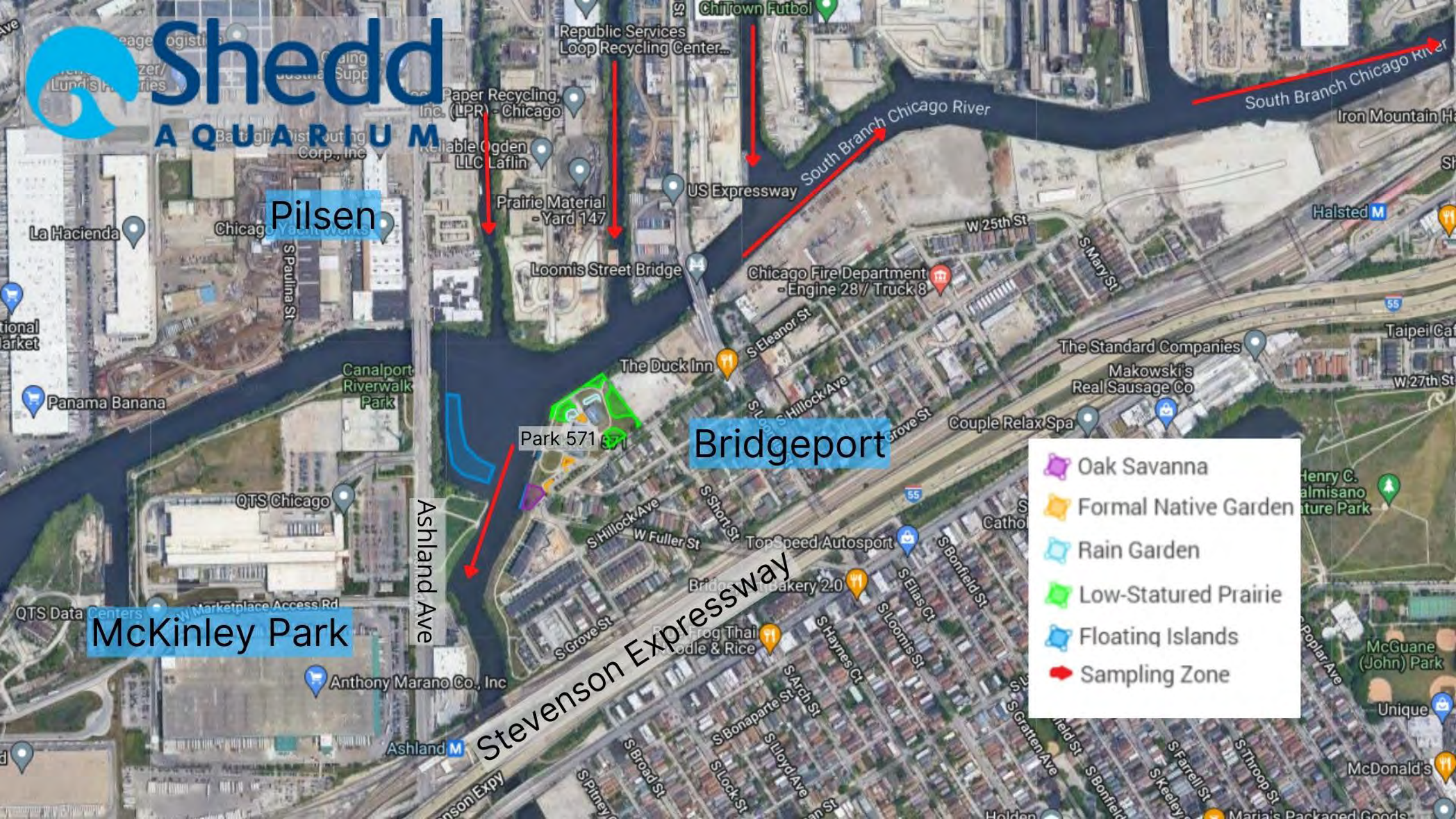
Shedd AQUARIUM

Pilsen

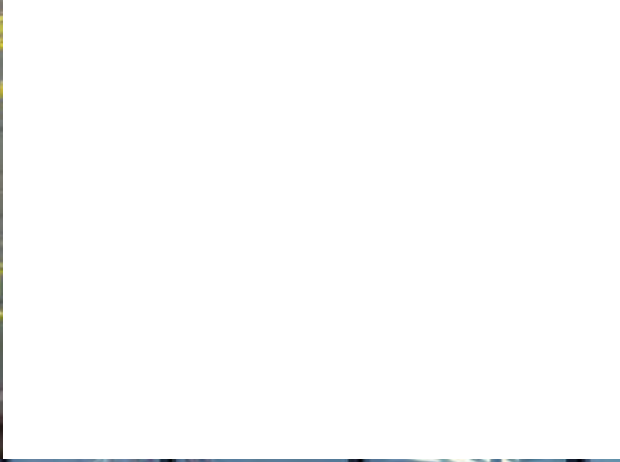
Bridgeport

McKinley Park

-  Oak Savanna
-  Formal Native Garden
-  Rain Garden
-  Low-Statured Prairie
-  Floating Islands
-  Sampling Zone

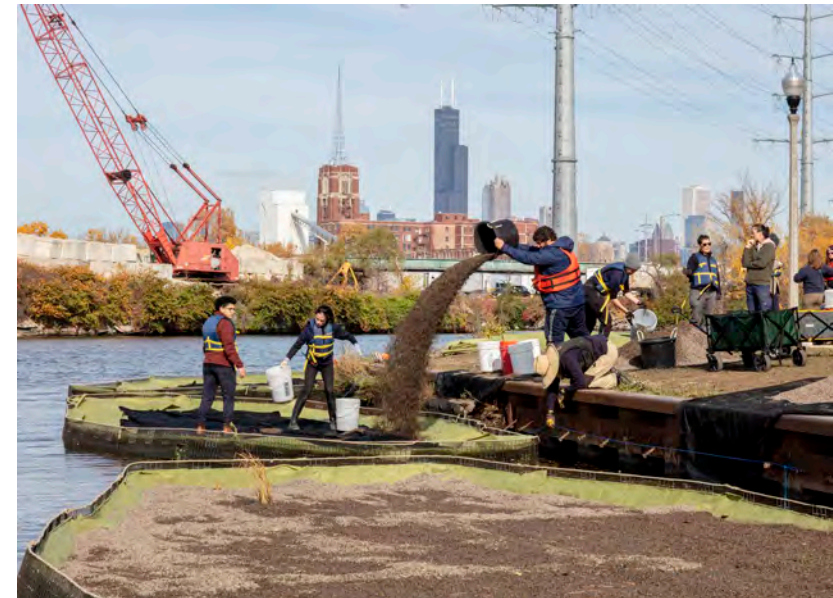
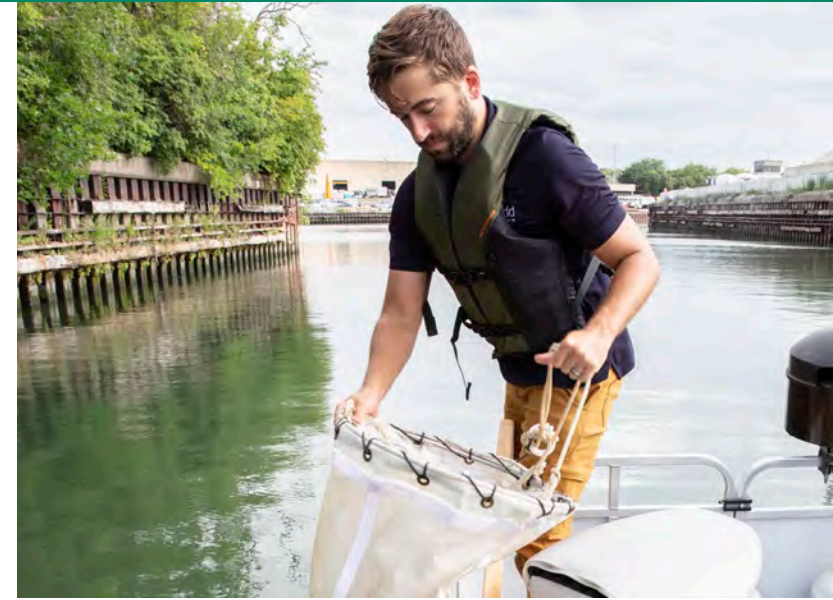


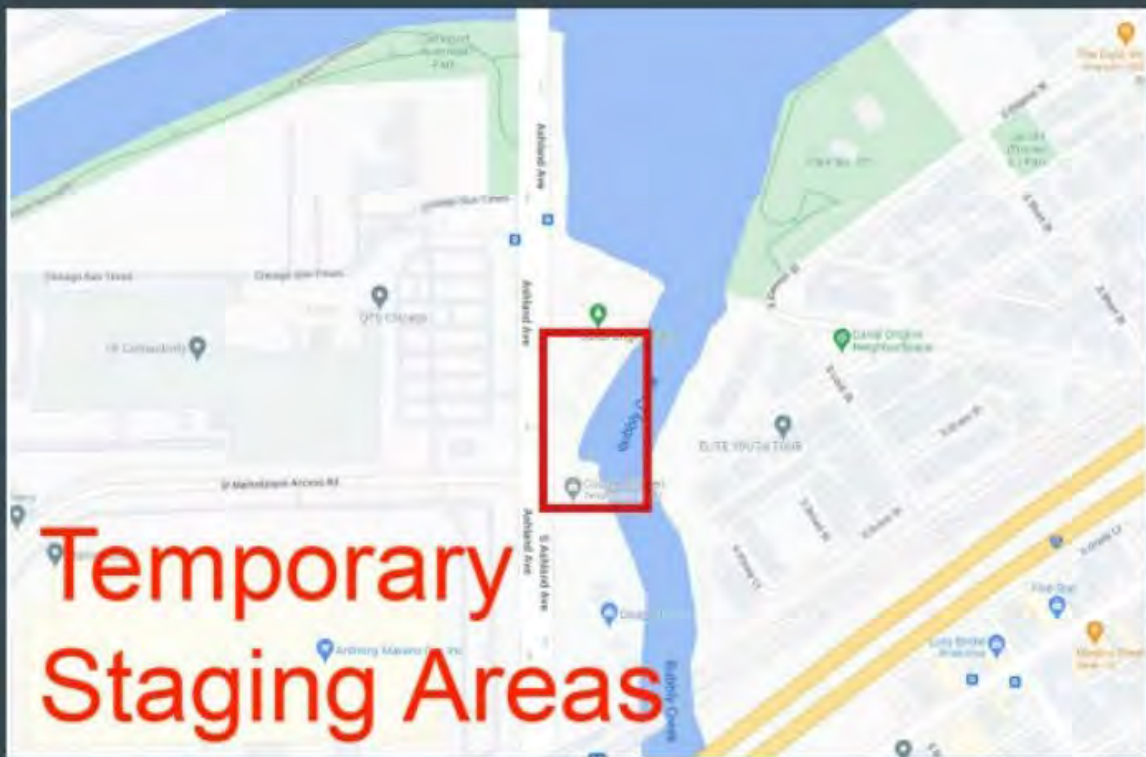
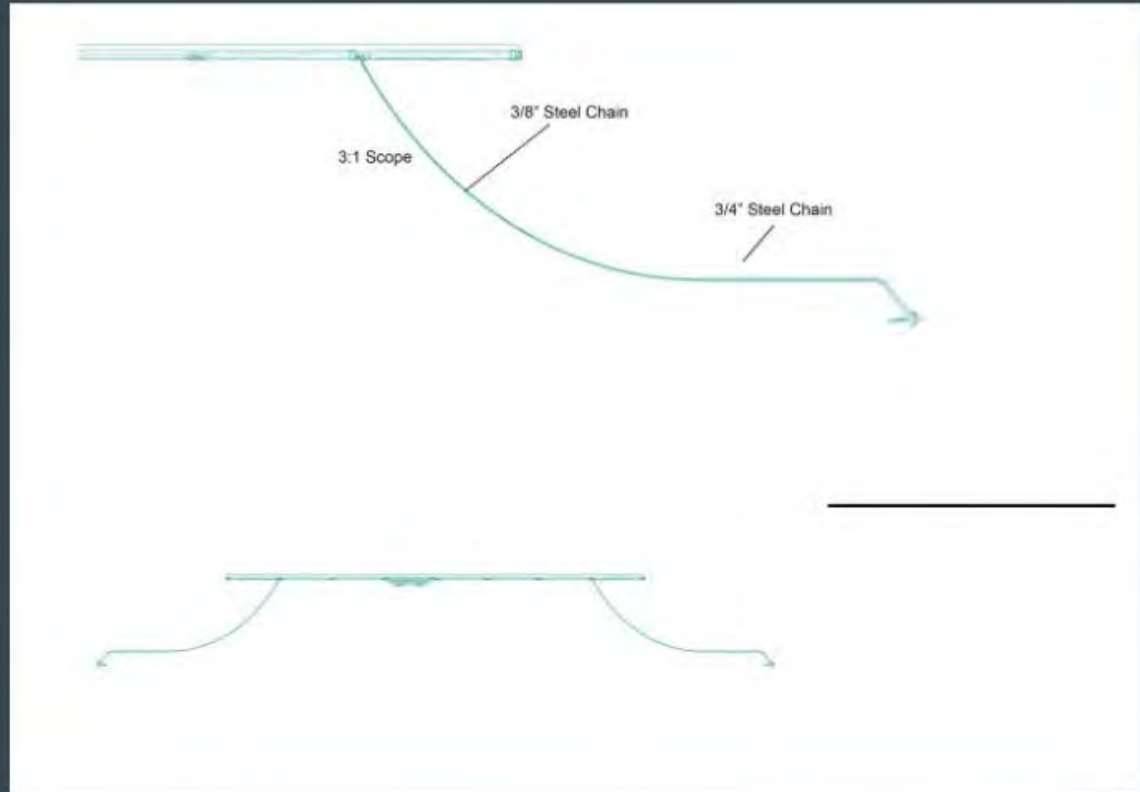


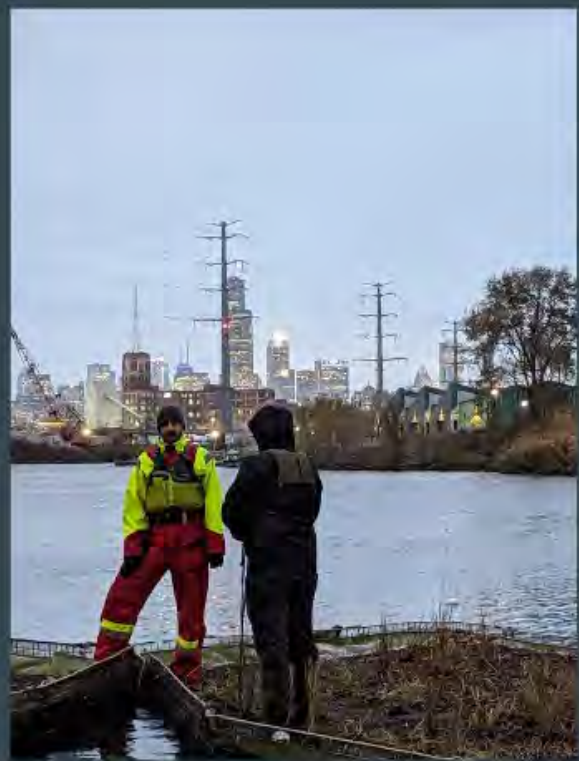




Restoration & monitoring





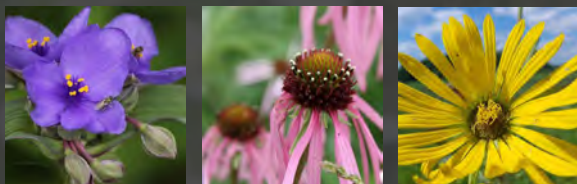




Chicago River Habitat Restoration, Conservation, & Green Jobs Training Pilot Initiative at Park 571



- Improve ecological health
- Improve access
- Conversion of non-native turf grasses to native prairie and savanna
- Job training
- Pre and post restoration research
- Shedd, GreenCorps, Peggy Notebaert Nature Museum, Bird Conservation Network





Chicago River Habitat Restoration, Conservation, & Green Jobs Training Pilot Initiative at Park 571



EXISTING CONDITIONS



Non-native Turf Lawn



Weedy Garden Beds



Sterile, Hardscape Shoreline

PROPOSED



Floating Islands



Native Prairie



Nature Play



Seating



Garden Beds



Steps/Paths

Fish Tracking = Acoustic Telemetry



Telemetry Questions

- Where do fish go in winter?
- Where do fish go during CSOs?
- Do fish utilize the floating wetland installs for spawning, feed, shelter?
- Generally, what do fish do day to day?





Effects of Shoreline Type on Aquatic Biodiversity

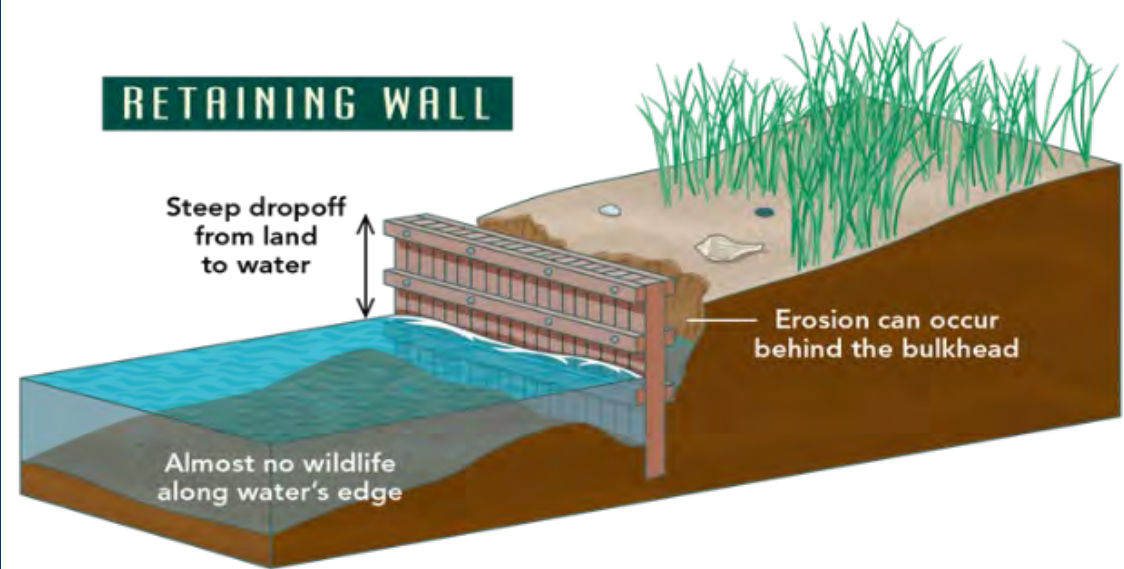
Shedd Aquarium

Illinois DNR

Friends of the Chicago River

Shoreline Hardening/Armoring

- Common in urban areas
 - To stabilize against erosion
- Effects on biodiversity studied in coastal regions
 - Generally reduce diversity
- Comparisons between shoreline types limited in rivers
 - Often instead compare impacted vs not impacted rivers



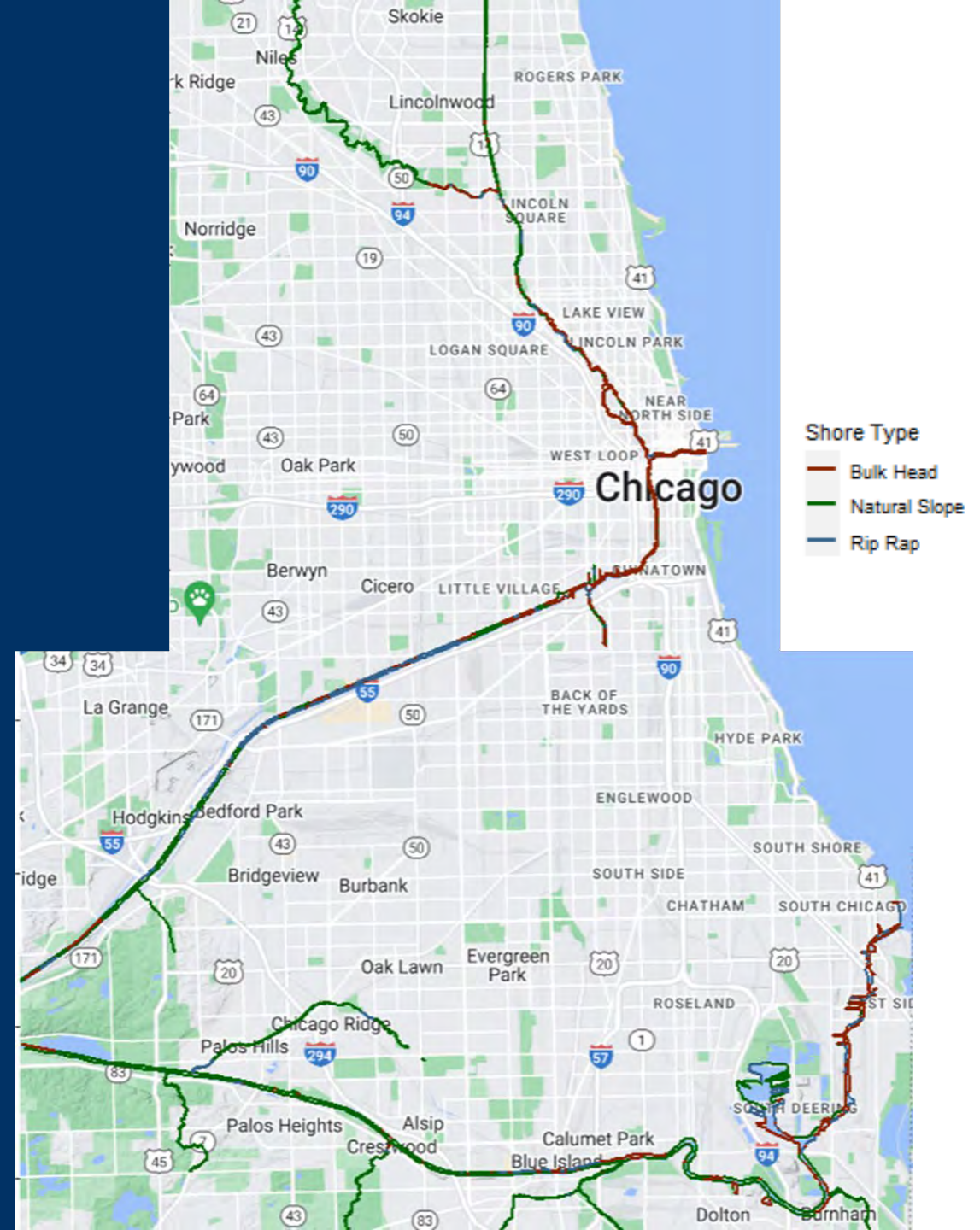
'Hard' infrastructure like retaining walls abruptly severs the ecological connection between the coast and water.



Not only do Living Shorelines defend land against destructive waves, but they also provide crucial habitat for fish and wildlife.

Much of Chicago's Waterways either Bulkhead or Natural

- Gradients of mixes
- Some RipRap in between
- Big differences between downtown and Cal-Sag areas or North Shore Channel



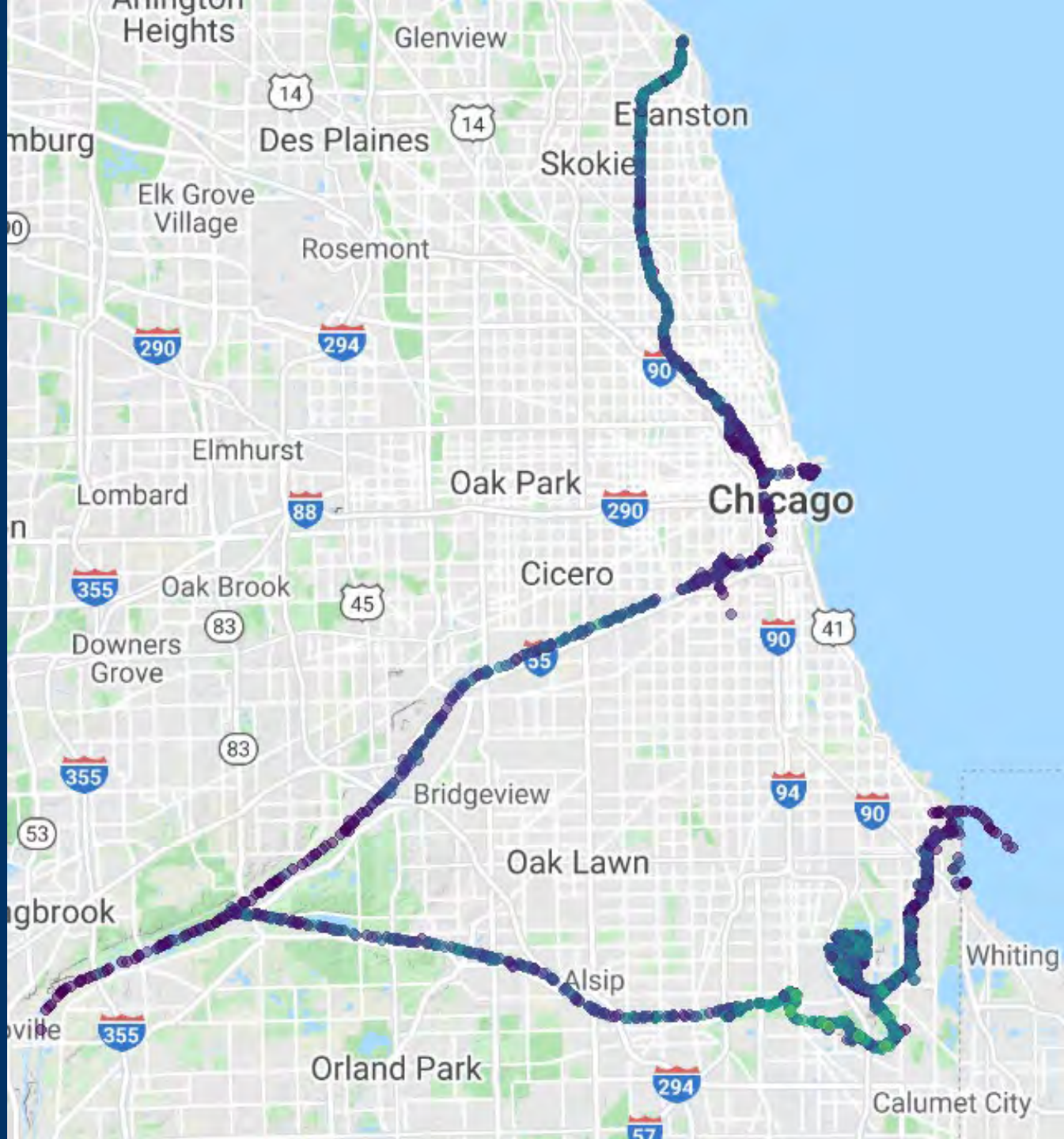
- Seasonal Intensive Monitoring Survey

- “Designed to test every nook and cranny of the CAWS to look for invasive fishes (specific carps)”
- Collaboration between state DNR, US FWS, US ACE, as well as some other agencies

- MWRD, Illinois Natural History Survey, commercial fishermen

- Dataset

- 2013 - 2019
- Spring and Fall sampling
- Electrofishing and Gill Netting
- Totals
 - 6,392 Individual sampling events
 - 162,721 Fish counted
 - 75 Fish Species noted



Data Steps Taken

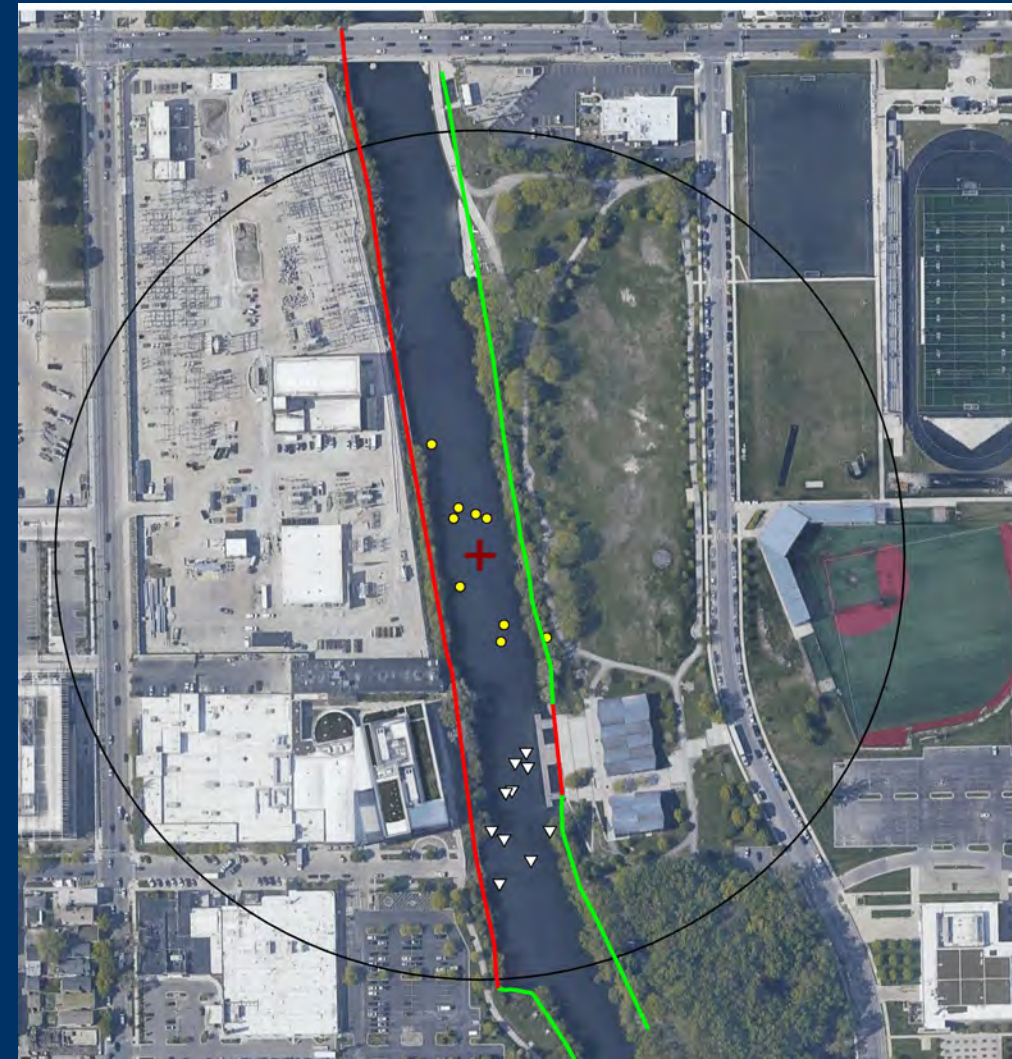
1. Group all samples that occurred within 100m of each other

1. Shown here for Sample Group 324 as the RED CROSS
2. Samples for Group 790 are shown just South of Group 324

2. Calculate length of each shoreline type within 300m buffer

1. Used Percentages to generalize about the sampling location

3. Conduct regression to assess how shoreline type affects Richness and Abundance of fishes

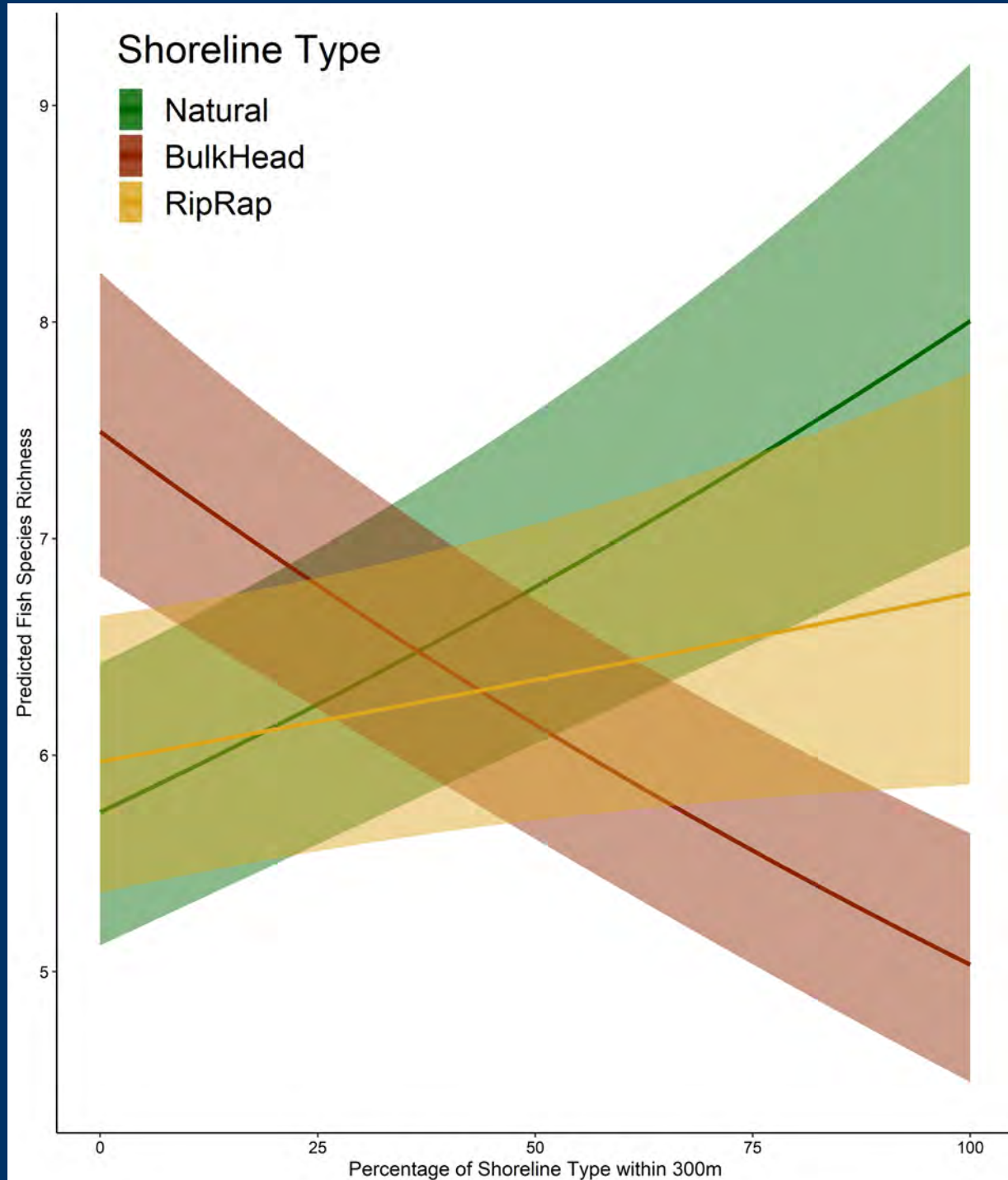


- Bulk Head
- Natural Slope
- Rip Rap
- 300m Buffer
- ✚ Sampling Site 324

- ▼ Samples 324
- ▽ Samples 790

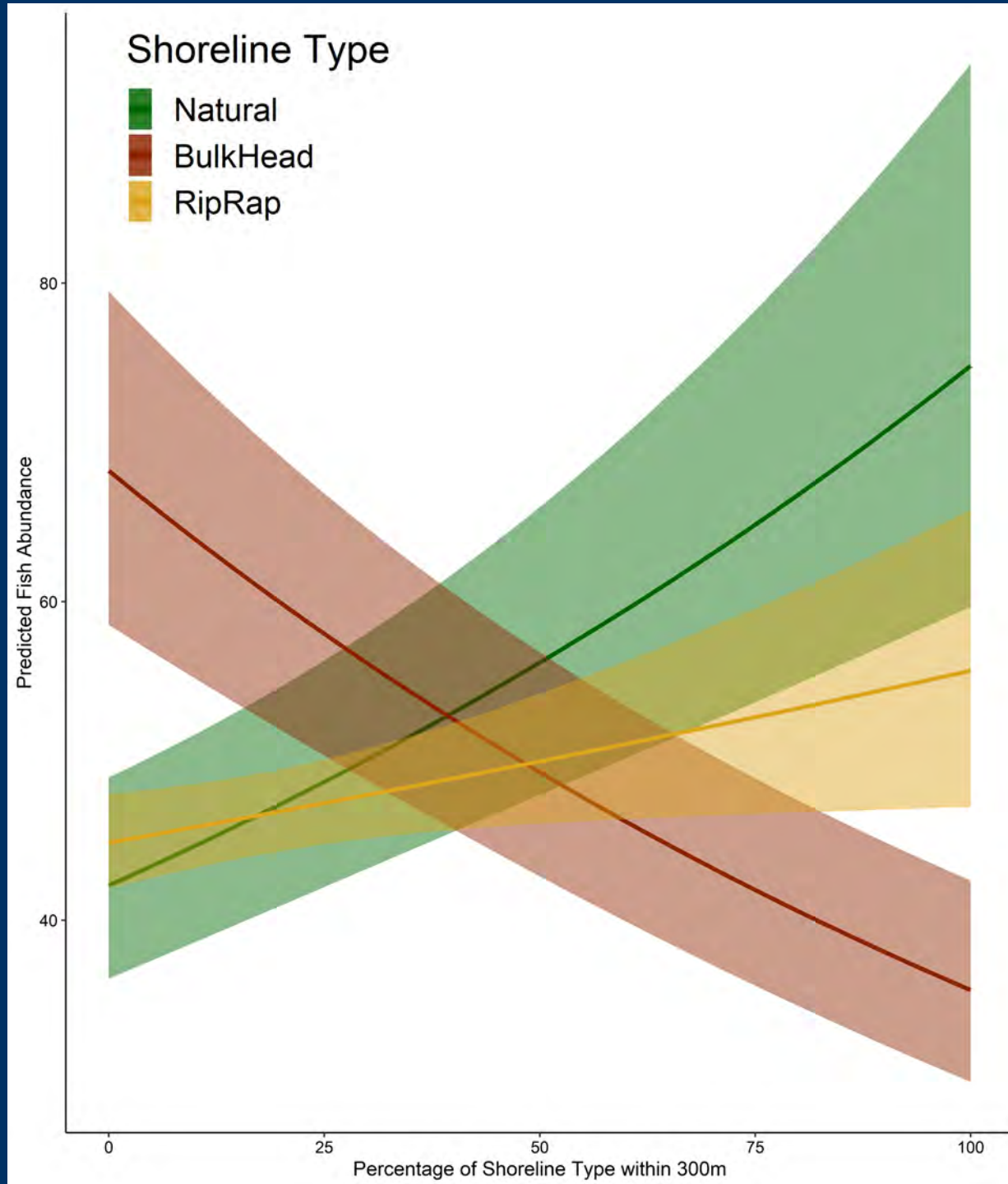
Shoreline effects Richness

- Positive effects of Natural slope
- Negative effects of Bulkhead
- And indeterminant effects of RipRap



Shoreline effects Abundance

- Positive effects of Natural slope
- Negative effects of Bulkhead
- And indeterminant effects of RipRap





- Shorelines of working waterways difficult and costly to change
 - Est. \$4,000 per foot of Bulkhead removed
 - Not including remediation of contaminants, utilities that need moving, demolition, etc.

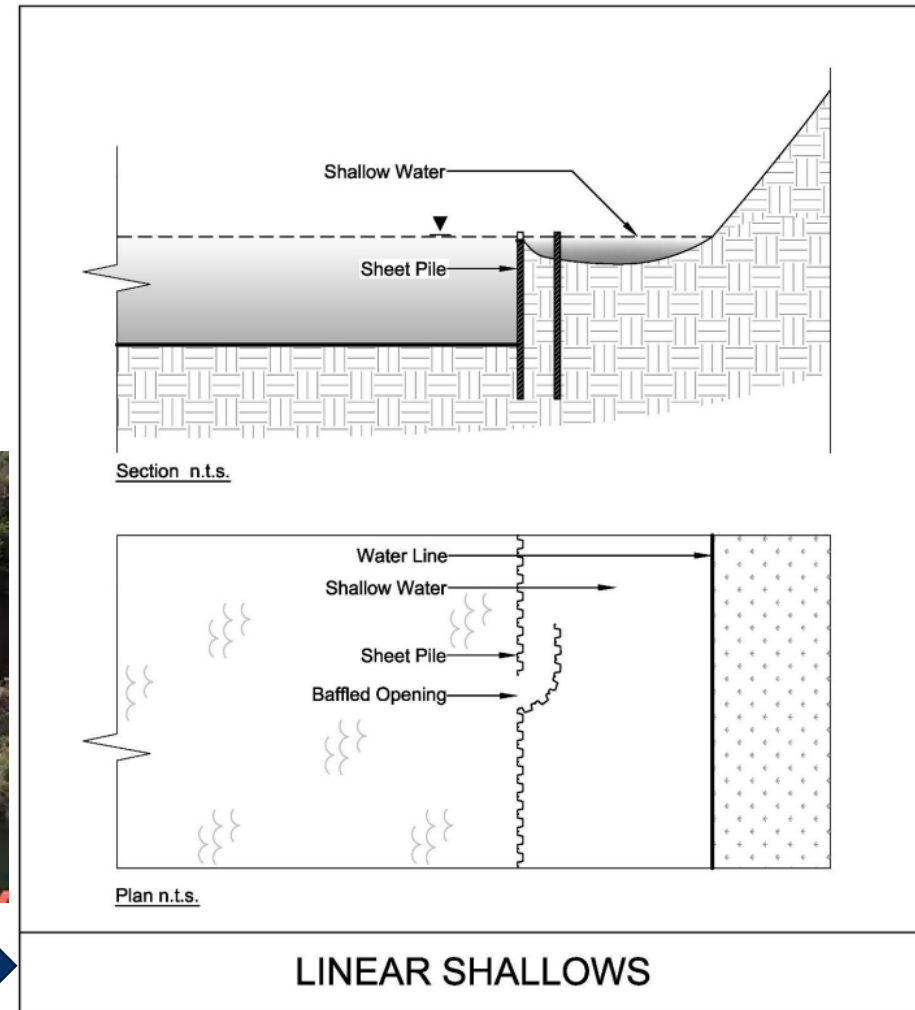
- WildMile + other wetlands

- One method being attempted to bring complexity and vegetation back
- Evaluating the potency of biological responses



- Liner Shallows

- Often brought up but yet to be trialed



Images from Bioengineering Group:
https://mwr.org/sites/default/files/documents/Appendix_B.pdf



JOHN G. SHEDD AQUARIUM

Shedd
AQUARIUM

MALIGAYANG
PAGDATING

مرحباً

WELKOM
BEM-VINDO
ברוכים הבאים

ARE

OME

स्वागत
ようこそ
WELKOM
BEM-

**Small Group Workshop:
SDP: Rivers Edge Policy Updates**

Chicago Sustainable Development Policy



Applicability

The policy applies to the following types of projects:

- All Planned Developments
- Tax Increment Financing (TIF) projects (\$1M or more)
- City funded affordable multi-family housing projects
 - Affordable, multi-family housing projects with more than five units receiving the following types of financial assistance by the City:
 - HOME loans
 - CDBG loans
 - Chicago Low-income Housing Trust Fund
 - Low-Income Housing Tax Credits (LIHTC)
 - TIF
 - Tax exempt, private activity or 501 c3 bonds
 - Allocations of LIHTC from the Private Activity Board
 - Donation Tax Credits
- Class L (renovations)
- Air Quality Ordinance projects

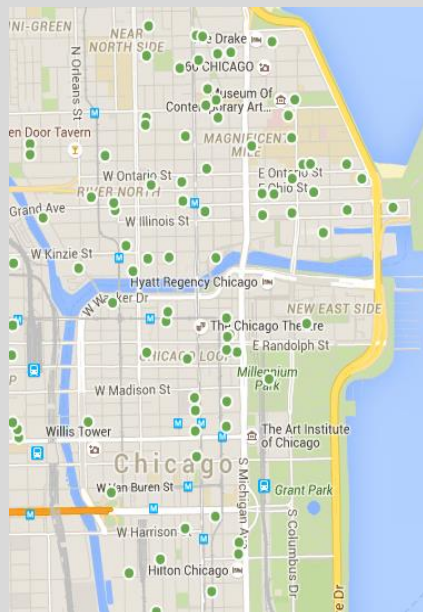
Points required

- **New Construction** (100 points required)
- **Renovations** (25 points required for moderate renovations, 50 points required for substantial renovations)

About the Chicago Sustainable Development Policy

- Chicago's **Sustainable Development Policy** requires projects receiving public funding or needing special approvals to incorporate sustainable design elements
- Originally implemented in 2004
- Intent is to add sustainable features to projects; **does not control use, density or other items** regulated by the municipal code

Green Roofs:



As of 2013, the City of Chicago had 509 vegetated roofs, covering 5.5MM square feet

LEED Buildings:



“Illinois named No. 1 in LEED certification”



Illinois #1 in LEED for Third Consecutive Year

Dear Jamie,

USGBC announced today that **Illinois ranks #1 in the nation for LEED certified space**. That makes it *three years in a row* Illinois has been #1 based on the per capita rankings released every year. Click [here](#) to view the press release and the 2015 list of Top 10 States for LEED.

Updated in 2017

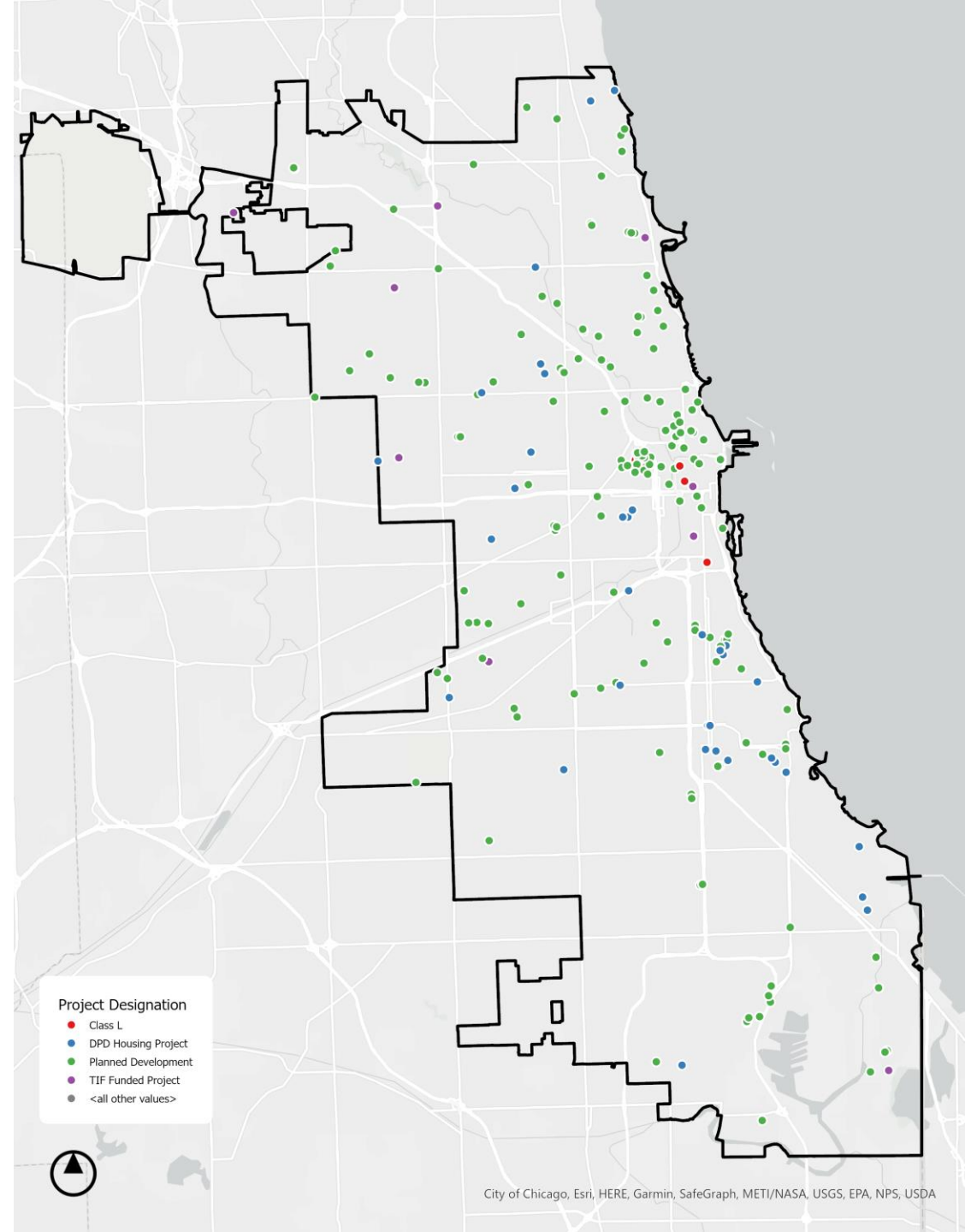
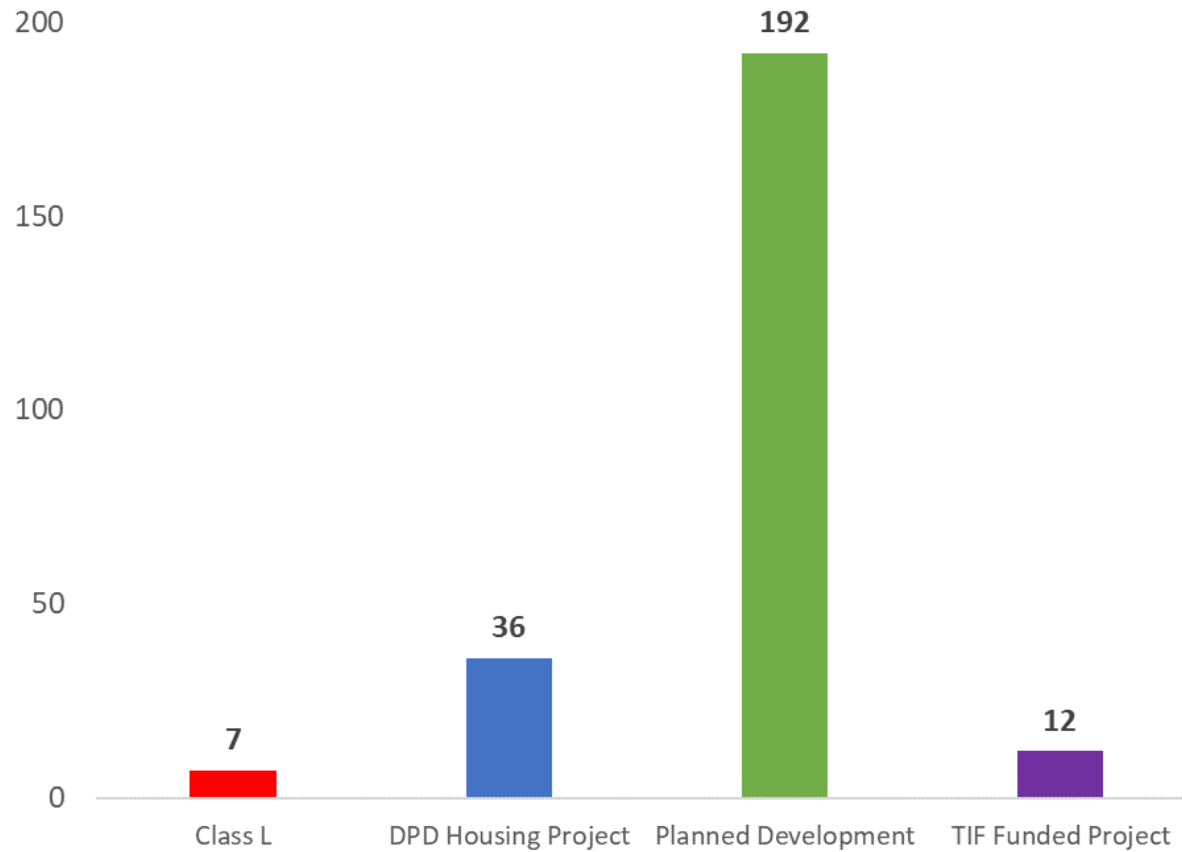
Current Policy

Compliance Options	Points Required	Sustainable Strategies Menu																																		
		Health	Energy					Stormwater					Landscapes			Green Roofs		Water		Transportation							Solid Waste	Work Force	Wildlife							
			1.1 Achieve WELL Building Standard	2.1 Designed to earn the Energy Star	2.2 Exceed Energy Code (5%)	2.3 Exceed Energy Code (10%)	2.4 Exceed Energy Code (25%)	2.5 Exceed Energy Code (40%)	2.6 Onsite Renewable Energy (3%)	2.7 Onsite Renewable Energy (5%)	3.1 Exceed Stormwater Ordinance by 25%	3.2 Exceed Stormwater Ordinance by 50%	3.3 100% Stormwater Infiltration	3.4 Sump Pump Capture & Reuse	3.5 100-year detention for lot-to-lot buildings	3.6 100-year Detention for Bypass	4.1 Working Landscapes	4.2 Natural Landscapes	4.3 Tree Planting	4.4 Achieve Sustainable Sites Certification	5.1 Green Roof 50-100%	5.2 Green Roof 100%	6.1 Indoor Water Use Reduction (25%)	6.2 Indoor Water Use Reduction (40%)	7.1 Proximity to Transit Service	7.2 Bikeshare Sponsorship	7.3 Bike Parking Residential	7.4 Bike Parking Commercial & Industrial	7.5 EV Charging Stations	7.6 EV Charger Readiness	7.7 CTA Digital Displays	8.1 80% Waste Diversion	8.2 Workforce Development	9.1 Bird Protection (Basic)	9.2 Bird Protection (Enhanced)	
Compliance Paths	Starting Points	Number of Optional Points Required New Construction / Substantial Rehab / Moderate Rehab																																		
Options Without Certification																																				
All Options Available	0	100 / 50 / 25	40	30	20	30	40	50	10	20	10	20	40	5	5	5	5	5	5	20	10	20	10	20	5	5	5	5	5	5	10	10	5	10		
Options With Certification																																				
LEED Platinum	95	5 / 0 / 0	40	NA	NA	NA	NA	NA	NA	NA	10	20	40	5	5	5	NA	NA	NA	20	10	20	NA	NA	NA	5	NA	NA	NA	NA	5	5	NA	10	5	10
LEED Gold	90	10 / 0 / 0	40	NA	NA	NA	NA	50	10	20	10	20	40	5	5	5	5	NA	5	20	10	20	NA	NA	NA	5	NA	NA	NA	10	5	5	10	10	5	10
LEED Silver	80	20 / 0 / 0	40	NA	NA	NA	40	50	10	20	10	20	40	5	5	5	5	5	5	20	10	20	NA	20	NA	5	NA	NA	10	5	5	10	10	5	10	
Green Globes 4-Globes	90	10 / 0 / 0	40	NA	NA	NA	NA	50	10	20	10	20	40	5	5	5	5	NA	5	20	10	20	NA	NA	NA	5	NA	NA	10	5	5	10	10	5	10	
Green Globes 3-Globes	80	20 / 0 / 0	40	NA	NA	NA	40	50	10	20	10	20	40	5	5	5	5	NA	5	20	10	20	NA	NA	NA	5	NA	NA	10	5	5	10	10	5	10	
Green Globes 2-Globes	70	30 / 0 / 0	40	NA	NA	NA	40	50	10	20	10	20	40	5	5	5	5	5	5	20	10	20	NA	20	NA	5	NA	NA	10	5	5	10	10	5	10	
Living Building Challenge	100	0 / 0 / 0	40	NA	NA	NA	NA	NA	NA	NA	10	20	40	5	5	5	NA	NA	NA	20	NA	NA	NA	NA	NA	NA	NA	NA	10	5	NA	NA	10	5	10	
Living Building Challenge Petal	90	10 / 0 / 0	40	NA	20	30	40	50	NA	NA	10	20	40	5	5	5	5	NA	5	20	10	20	10	20	NA	5	NA	NA	10	5	5	10	10	5	10	
Enterprise Green Communities*	80	20 / 0 / 0	40	NA	NA	NA	NA	NA	10	20	10	20	40	5	5	5	5	5	5	20	10	20	10	20	5	5	NA	NA	10	5	5	10	10	5	10	
PassiveHouse	70	30 / 0 / 0	40	NA	NA	NA	NA	NA	10	20	10	20	40	5	5	5	5	5	5	20	10	20	10	20	5	5	5	5	10	5	5	10	10	5	10	

*only available to affordable housing projects funded by DPD's Housing Bureau

Project types

247 Projects Analyzed



Current Strategies

HEALTH

1.1 Achieve WELL Building standard

ENERGY

2.1 Design to earn ENERGY STAR

2.2 Exceed Energy Code (5%)

2.3 Exceed Energy Code (10%)

2.4 Exceed Energy Code (25%)

2.5 Exceed Energy Code (40%)

2.6 Onsite Renewable Energy (3%)

2.7 Onsite Renewable Energy (5%)

STORMWATER

3.1 Exceed Stormwater Ordinance (25%)

3.2 Exceed Stormwater Ordinance (50%)

3.3 100% Stormwater Infiltration

3.4 Sump Pump Capture and Reuse

3.5 100-year detention for lot-to-lot buildings

3.6 100-year detention for bypass

LANDSCAPES

4.1 Working landscapes

4.2 Natural landscapes

4.3 Tree planting

4.4 Achieve Sustainable Sites Certification

GREEN ROOFS

5.1 Green Roof 50-100%

5.2 Green Roof 100%

WATER

6.1 Indoor Water Use Reduction (25%)

6.2 Indoor Water Use Reduction (40%)

TRANSPORTATION

7.1 Proximity to Transit Service

7.2 Bikeshare Sponsorship

7.3 Bike Parking Residential

7.4 Bike Parking Commercial/Industrial

7.5 EV Charging Stations

7.6 EV Charging Readiness

7.7 CTA Digital Displays

SOLID WASTE/WORKFORCE

8.1 80% Waste Diversion

8.2 Workforce Development

WILDLIFE

9.1 Bird Protection (Basic)

9.2 Bird Protection (Enhanced)

Strategies by frequency

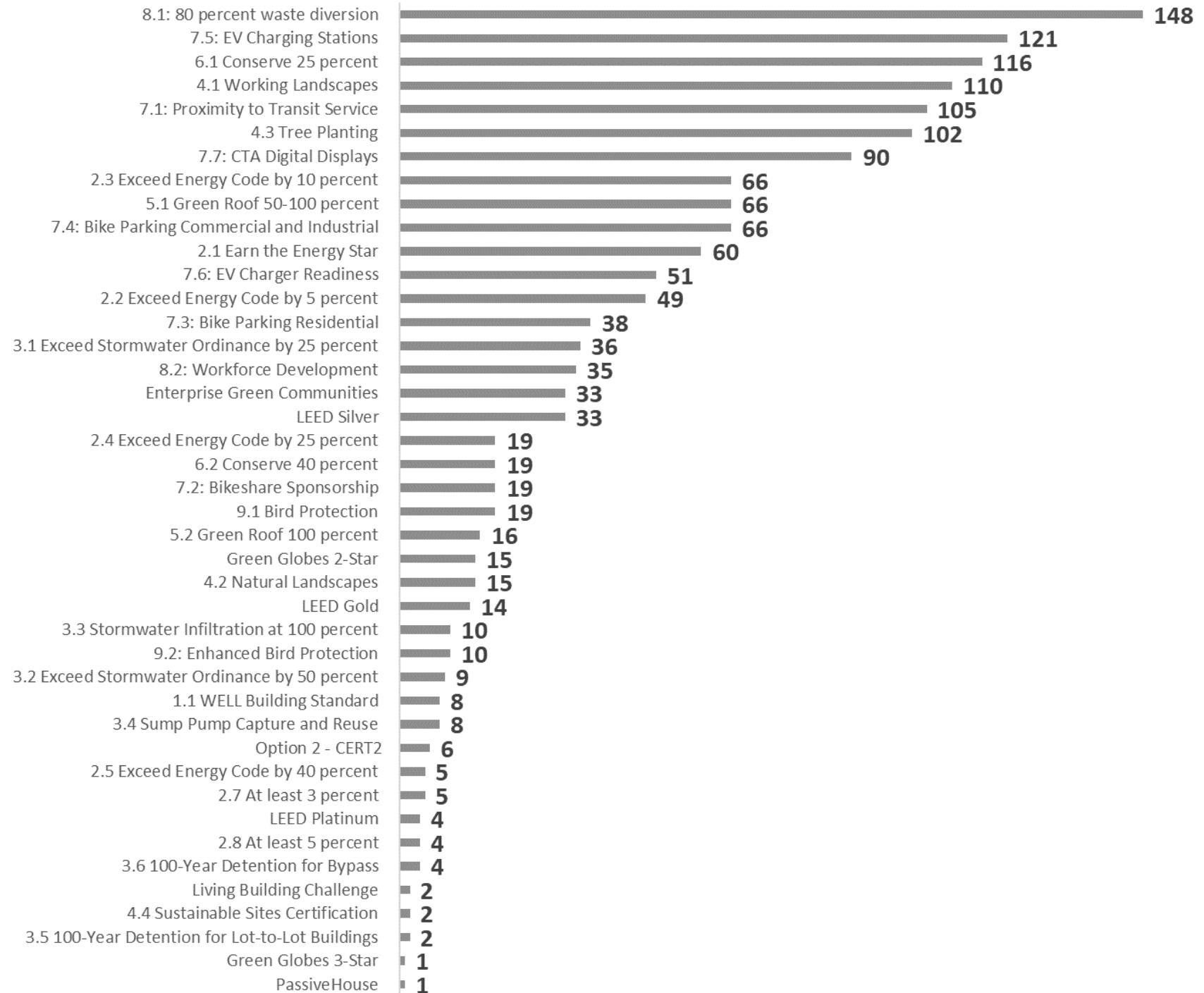
Top Five:

1. 8.1: 80 percent CONSTRUCTION waste diversion
2. 7.5: EV Charging Stations
3. 6.1 Indoor Water use reduction 25 %
4. 4.1 Working Landscapes
5. 7.1: Proximity to Transit Service



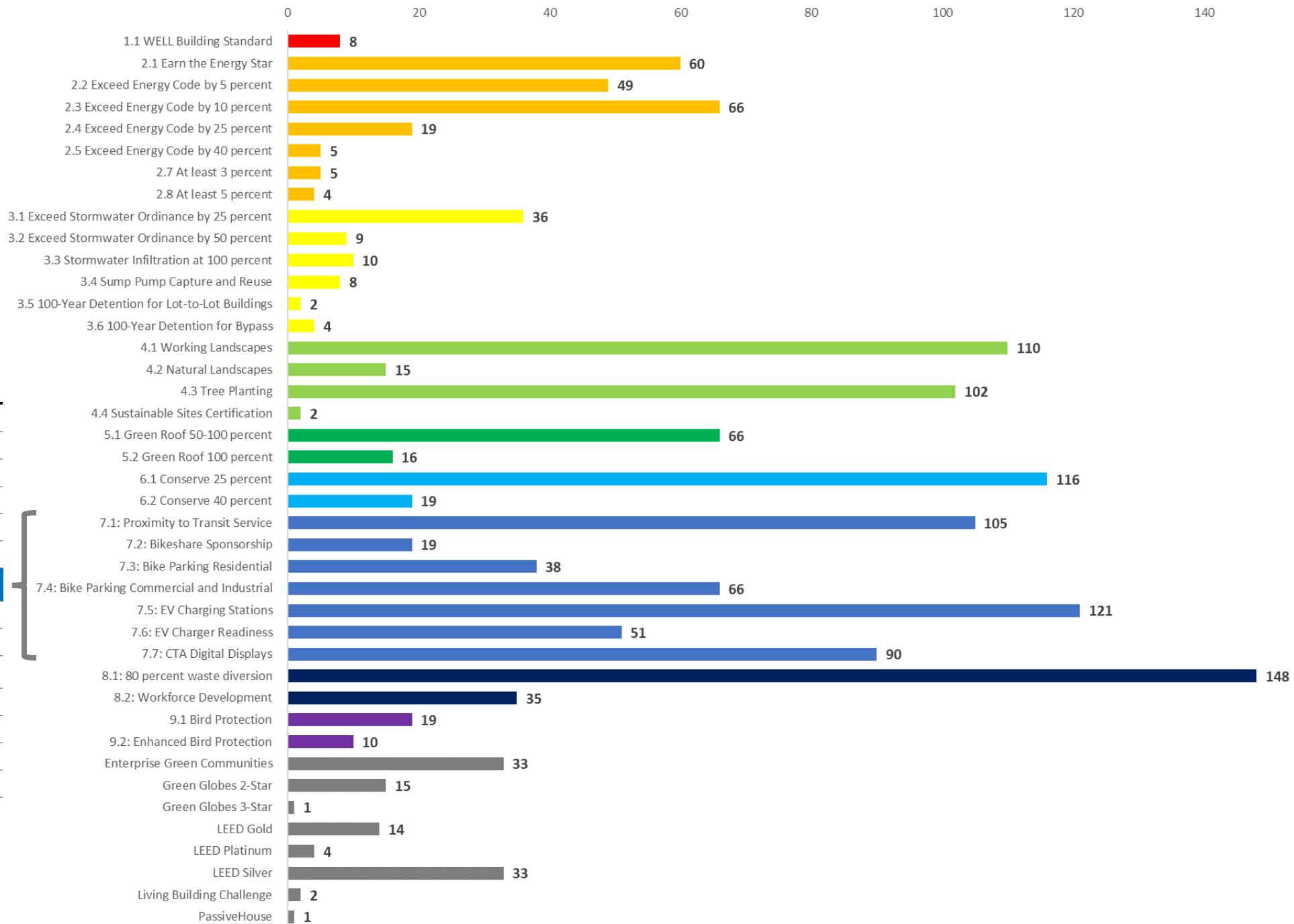
Bottom Five:

1. PassiveHouse
2. Green Globes 3-Star
3. 3.5 100-Year Detention for Lot-to-Lot Buildings
4. 4.4 Sustainable Sites Certification
5. Living Building Challenge



Strategies, Categories, & Frequency Of Use

Category/Certification	Count
Health	8
Energy	208
Stormwater	69
Landscaping	229
Green Roof	82
Indoor Water Use	135
Transportation	490
Waste Diversion	148
Workforce Development	35
Bird Protection	29
LEED	51
EGC	33
Green Globes	16
Living Building challenge	2
PassiveHouse	1



What is the impetus for a 2022 update?

Policy update is needed to:

- Incorporate key principles of equity and resiliency from We Will Chicago
- Align with 2022 Chicago Climate Action Plan and decarbonization goals
- Reflect new ordinances: bird-friendly design; electric vehicle charger readiness
- Keep up with new codes or technology advancements in energy, water, transportation
- Expand policy design through community engagement

Sustainable Development Policy Update – 2022 Outreach

- Sustainable Development Policy Committee
- City Departments
- Advocacy/Civic organizations
 - Bird protection
 - Energy
 - River Ecology and Governance Task Force
- Certification Programs
 - US Green Building Council
 - Green Building Institute
 - International Well Building Institute
- 11 focus groups and one-on-one discussions (80 Participants)

Sustainable Development Policy Update Timeline

- Best Practices Research (March/April 2022)
- Focus Group Conversations (June/July 2022)
- Focus Group Summary (August 2022)
- Small Group Discussions (September – November 2022)
- Draft Policy (January 2023)
- Gather Feedback & Implement Update (Early 2023)

Potential SDP Policy Updates Impacting the River's Edge

X.1 Naturalize River Edges (5 points) *Previously "4.2 Natural Landscapes"*

Include biodiversity or a naturalized river edge or in stream habitat – installation of naturalized edge treatments along waterways as noted in 17-8-0509 or in stream habitat

Compliance: Landscape plan detailing how the criteria have been met.

X.2 Exceed River Setback (10 points)

Exceed the required setback by XX% as required by the Chicago Zoning Ordinance as described in the Chicago River Design Guidelines or Calumet Design Guidelines.

Compliance: Landscape plan detailing how the criteria have been met.

X.3 River Connectivity Bonus (10 points)

Provide public access per Chicago River Design Guidelines that connects two adjacent river edge greenways and further completes a river edge greenway network.

Compliance: Landscape connectivity plan and river edge network diagram illustrating network benefits.

X.4 River Habitat Cut-Out (20 points)

Provide innovative space for floating and emerging habitat while not infringing on the Federal navigable channel by manipulating the river's edge to expand river into the development parcel.

Compliance: Landscape plan detailing how the criteria have been met. US Army Corps of Engineers Compliance with Section 408.

SDP River's Edge Policies

Discussion Questions

- Are there opportunities or ideas that we've discussed as a Task Force that are missing from this list that should be included?
- Are there ways to improve and refine the proposed content of the policy updates?
- How can we ensure that the spirit of these updates is followed by developers in a way that is truly beneficial to the river system? Are there resources that can be provided including additional definitions, descriptions and examples to help direct developer implementation?

**2022 Look Back,
2023 Look Forward**

2022 Look Back

- South Branch Open Houses to provide design guideline focused input on two sites:
 - 3000 S Pitney Court
 - Damen Silos
- Chicago-Calumet Region Virtual Discussion and Project Sharing Meeting
- Workshops and input on:
 - We Will Chicago citywide plan (2)
 - Sustainable Development Policy
 - North Branch Framework Plan RFP
 - Bally's Casino

2022 Look Back

- Landing page for Development Review Working Group
 - 3000 E 106th St – June
 - Lake Shore Recycling – August
 - Costco – August
 - Bally's Casino – September
 - Riverwalk – October
- Case study research and presentations
 - Wild Mile
 - South Bank
 - Cogle
- Innovative Policy and Regulatory Example Presentations and Discussions
 - Lake Michigan and Chicago Lakefront Protection District
 - Examples of Innovative Regulatory Models

2023 Look Forward

Work Plan Concepts for 2023

Concepts currently being considered:

- Additional community engagement activities: focus on specific opportunity sites and advocacy opportunities
- Create resources, guides, and a follow-up strategy to enhance the work of the Development Review Working Group
- Continue to research best practices and inspirational examples:
 - Riverfront improvement and maintenance cost share models
 - Open Space Impact Fee innovations
 - Innovative approaches to USACE constraints
- Improved maintenance consistency
- Expanded public private partnerships
- Continued input into City plans and policies (CDOT South Branch Parks Access Study and others)

2023 Meeting Dates + Adjourn

Proposed 2023 Task Force Meeting Dates

- March 14: 3 pm to 4:30 pm
- June 6: 3 pm to 4:30 pm
- September 12: 3 pm to 4:30 pm
- December 5: 3 pm to 4:30 pm