



Why Use the Green Guide?

CRS for Community
Resilience

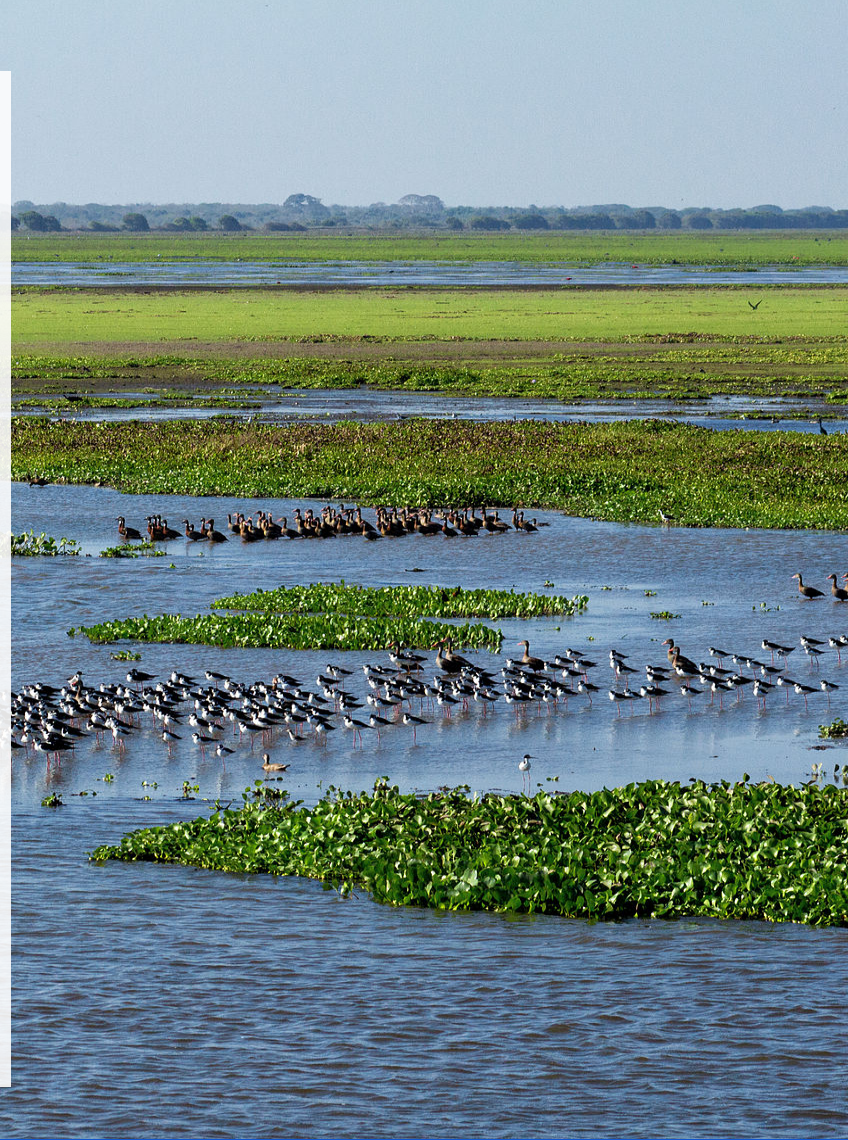
300 Series Public Information Activities	412.e: More-restrictive floodway standard	500 Series
	412.f: Mapping of SFHA	Flood Damage Reduction Activities
312.a: Maintaining Elevation Certificates	422.a: Open space preservations	512.a: Floodplain management planning
312.b: Maintaining Elevation Certificates for post-FIRM buildings	422.b: Deed restrictions	512.b: Repetitive loss area analysis
312.c: Maintaining Elevation Certificates for pre-FIRM buildings	422.c: Natural functions open space	512.c: Natural floodplain functions plan
322.a: Basic FIRM information	422.d: SFHA open space	522.a: Buildings acquired or relocated
322.b: Additional FIRM information	422.e: Coastal erosion open space	522.b: Buildings on the repetitive loss list
322.c: Other flood problems not shown on the FIRM	422.f: Open space incentives	522.c: Severe Repetitive Loss properties
322.d: Flood depth data	422.g: Low density zoning	522.d: Critical facilities
322.e: Special flood-related hazards	422.h: Natural shoreline protection	522.e: Buildings located in the V or coastal A Zone
322.g: Natural floodplain functions	432.a: Development Limitations	532.a: Flood protection project technique used
332.a: Outreach Projects	432.b: Freeboard	532.b: Flood protection improvement
332.b: Flood response preparations	432.c: Foundation protection	532.c: Protected buildings
332.c: Program for Public Information	432.d: Cumulative substantial improvements	542.a: Channel debris removal
332.d: Stakeholder delivery	432.e: Lower substantial improvements	542.b: Problem site maintenance
342.a: Disclosure of flood hazard	432.f: Protection of critical facilities	542.c: Capital improvement program
342.b: Other disclosure requirements	432.g: Enclosure limits	542.d: Stream dumping regulations
342.c: Real estate agents' brochure	432.h: Building code	542.e: Storage basin maintenance
342.d: Disclosure of other hazards	432.i: Local drainage protection	600 Series
352.a: Flood protection library	432.j: Manufactured home parks	Warning and Response
352.b: Locally pertinent documents	432.k: Coastal A Zones	612.a: Flood threat recognition system
352.c: Flood protection website	432.l: SFHA regulations	612.b: Emergency warning dissemination
362.a: Property protection advice	432.m: Tsunami hazard regulations	612.c: Flood response operations
362.b: Protection advice provided after site visit	432.n: Coastal erosion hazard regulations	612.d: Critical facilities planning
362.c: Financial assistance advice	432.o: Other higher standard	612.e: StormReady community
362.d: Advisor training	432.p: State-mandated regulatory standards	612.f: TsunamiReady community
372.a: Flood insurance coverage assessment	432.q: Regulations administration	622.a: Levee maintenance
372.b: Coverage improvement plan	442.a: Additional map data	622.b: Levee failure threat recognition system
372.c: Coverage improvement plan implementation	442.b: FIRM maintenance	622.c: Levee failure warning
372.d: Technical assistance	442.c: Benchmark maintenance	622.d: Levee failure response operations
400 Series Mapping and Regulations	442.d: Erosion data maintenance	622.e: Levee failure critical facilities planning
	452.a: Storm water management regulations	632.a: State dam safety program
412.a: New study	452.b: Watershed master plan	632.b: Dam failure threat recognition system
412.b: Leverage	452.c: Erosion and sedimentation control regulations	632.c: Dam failure warning
412.c: State review	452.d: Water quality regulations	632.d: Dam failure response operations
412.d: Higher study standards		632.e: Dam failure critical facilities planning

Element Name	Possible Points	Element Name	Possible Points
322.g. Natural Floodplain Functions	20	432.a. Development Limitations	1,330
332.a. Outreach Projects	200	432.i. SFRH Regulations, Inland	100
332.d. Stakeholder Delivery	50	432.m. SFHR Regulations, Coastal	370
412.e. More Restrictive Floodway Standard	140	442.d. Erosion Data Maintenance	20
422.a. Open Space Preservation	1,450	452.a. Stormwater Management Regulations	380
422.b. Deed Restrictions	50	452.b. Watershed Master Plan	315
422.c. Natural Functions Open Space	350	452.c. Erosion and Sediment Control Regulations	40
422.d. SFRH Open Space	150	452.d. Water Quality Regulations	20
422.e. Coastal Erosion Open Space	750	512.c. Natural Floodplain Functions Plan	100
422.f. Open Space Incentives	250	Activity 520	2,250
422.g. Low Density Zoning	600	542.c. Capital Improvement Program	70
422.h. Natural Shoreline Protection	120		



Natural and Beneficial Functions (NBF)

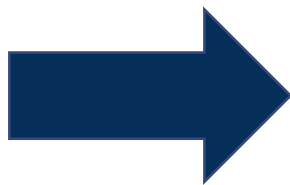
- Creation of habitat for fish, fowl and wildlife, including many endangered species
- Enhanced air and water quality
- Groundwater recharge
- Restoration of natural ecosystems and ecosystem services
- More sustainable environment in your community
- Creation or enhancement of recreation opportunities



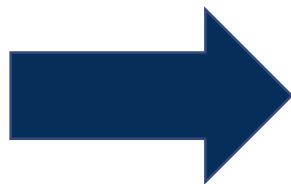


Natural and Beneficial Functions

Class 4
Status



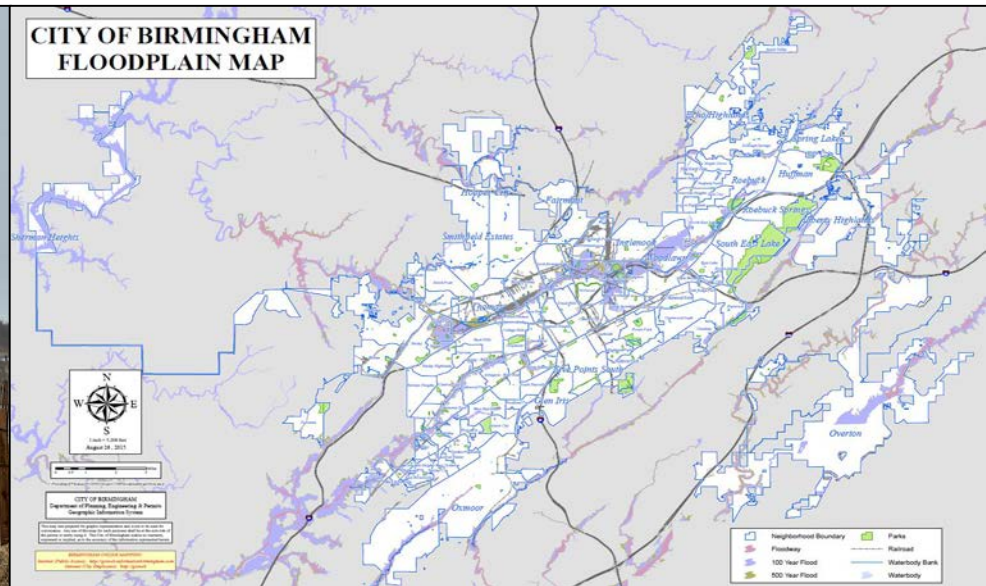
Class 1
Status





Why use the Green Guide?

- Receive stackable credits
- How to earn credit for state requirements
- Tips on documenting and calculating credits
- Best practices and success stories from *actual* communities





Receive Stackable Credits

Many of the credits earned for implementing measures that support natural and beneficial floodplain functions earn credit under several categories!



Image: Flood waters of the Illinois River at Cooper Park, East Peoria, IL

Stackable Credit:

Earning credit for multiple elements by completing and documenting one task (or several related tasks)



Activities and Elements

- Explain technical information in plain language
- Overview of relevant impact adjustments
- Detailed Element profiles for each of the 25 Green Elements with natural and beneficial functions!

Impact Adjustment:

Ratio used to adjust the amount of credit your community receives for implementing an element

Usually calculated by taking area of regulatory floodplain affected by element divided by overall regulatory floodplain



Tips on Documenting and Calculating Credits

- Each element profile outlines the difficulty level for implementation **AND** documentation.
- Difficulty levels verified by experts in the field.

Low



Medium

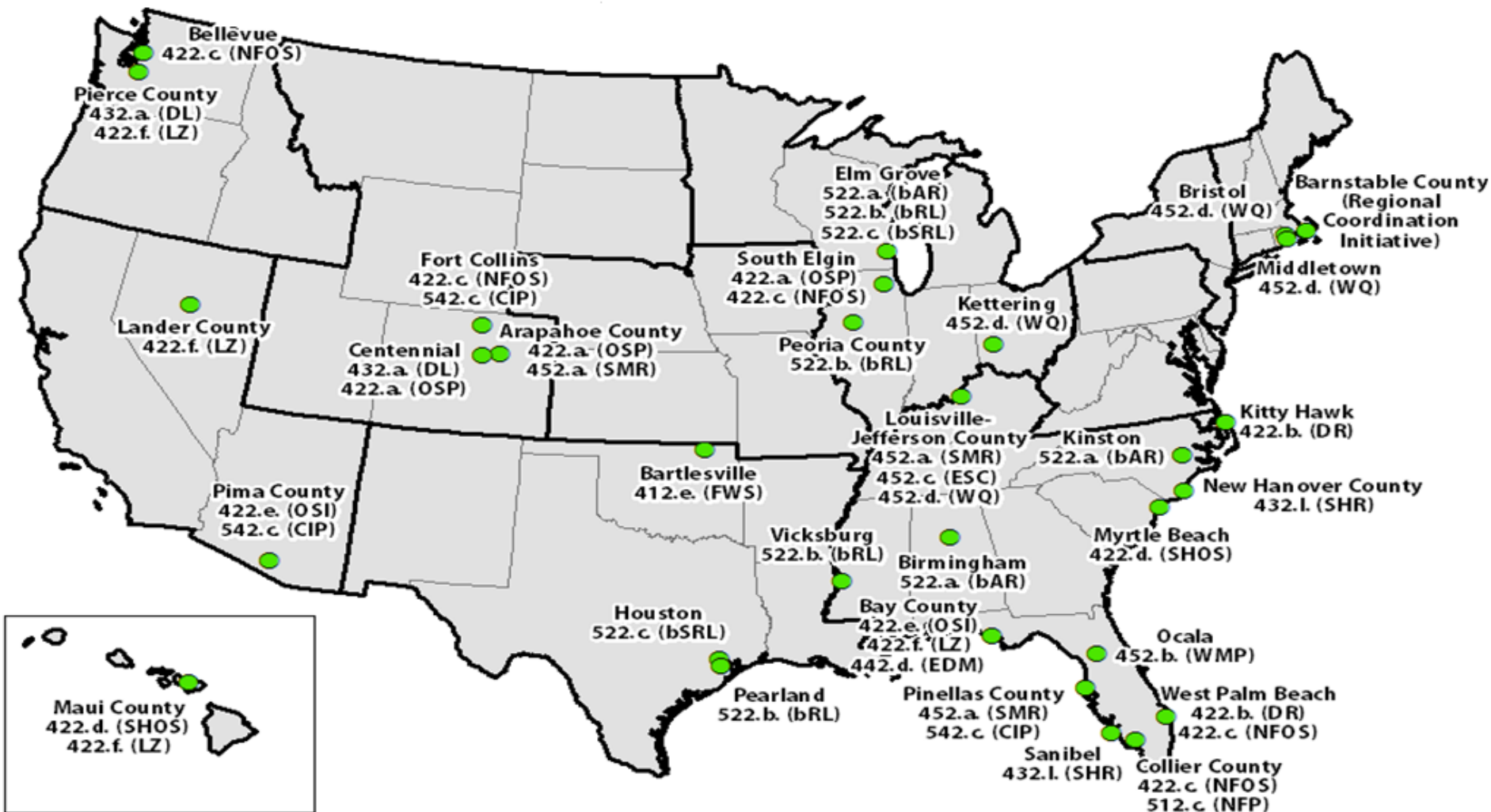


High





Best Practices and Success Stories





Best Practices



Image: Bristol channel via Beta Group



Image: [Michael McCarthy](#) via Flickr Creative Commons



Description ▲

Earthstar Geographics | Downloaded from M...

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Existing Activities Eligible for Credit

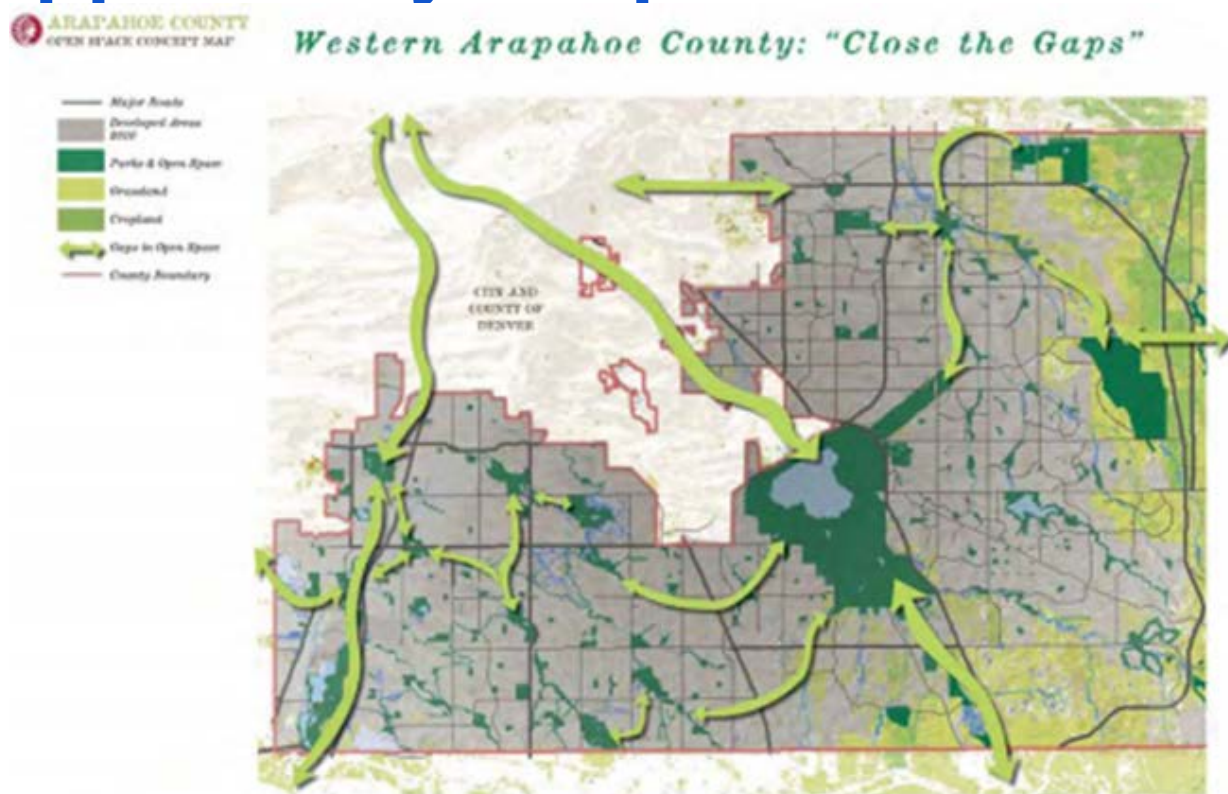
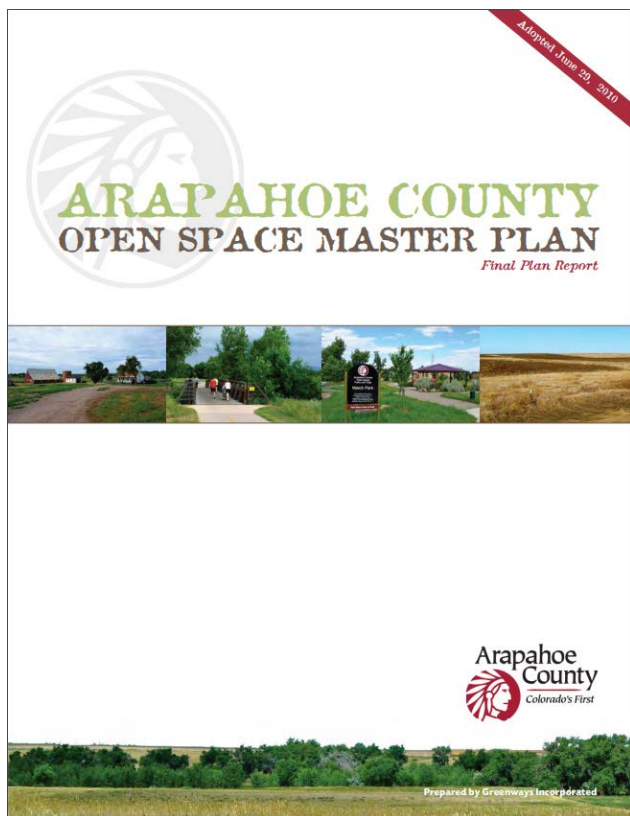
- **State Requirements**
 - Mandatory freeboard
 - Zero-rise floodplain standards
 - Coastal management
- **Local regulations, plans and permits!**
 - Erosion and sediment control
 - Water quality
- **Low density zoning**





Be Ready!

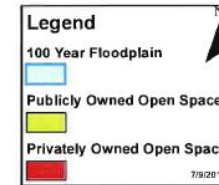
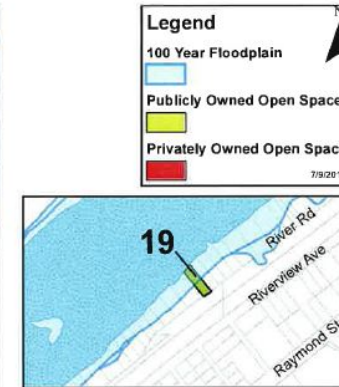
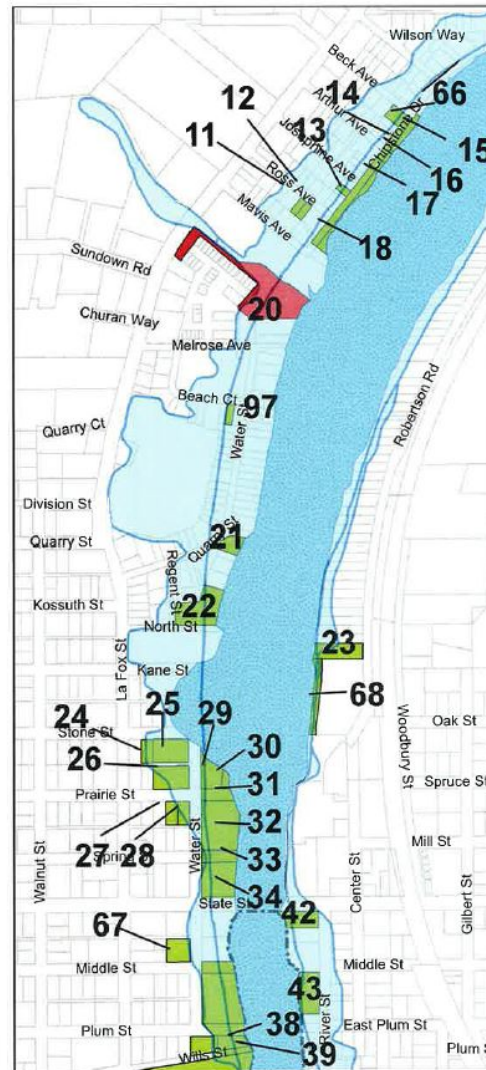
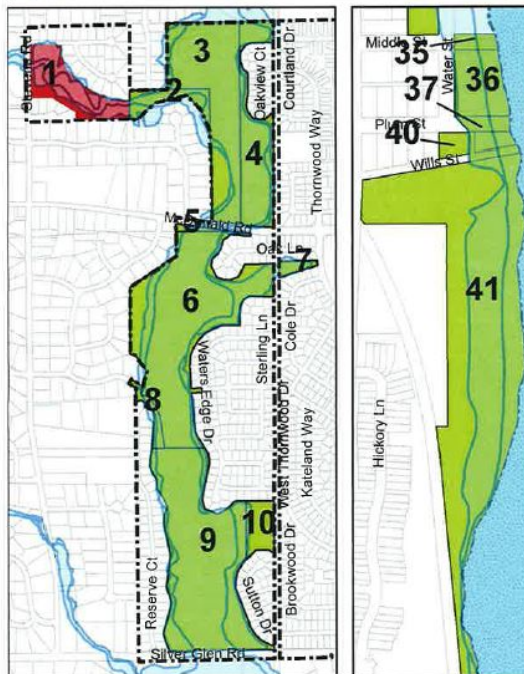
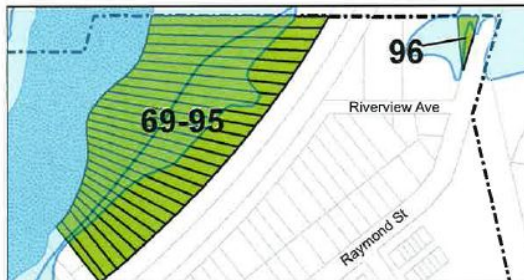
Use existing plans to set a course for action and have funds on hand to take action when the opportunity is ripe.





Invest in GIS

Activity 420 Open Space Preservation





Inventory Property and Natural Resources in the Floodplain



Image from the Village of South Elgin, IL



Image from Dennis Dixon, CFM, Piece County, WA



Image from Denise Bell, City of Birmingham, AL



Image from Ken Lund retrieved from the Flickr Creative Commons



Have an Outreach Plan



Created by Bonegolem
from Noun Project

- **Address that audience's unique concerns**
- **Share information transparently**
- **Consensus-building**
- **Maximize mutual benefits: Protecting or realizing the interests of all stakeholders involved**

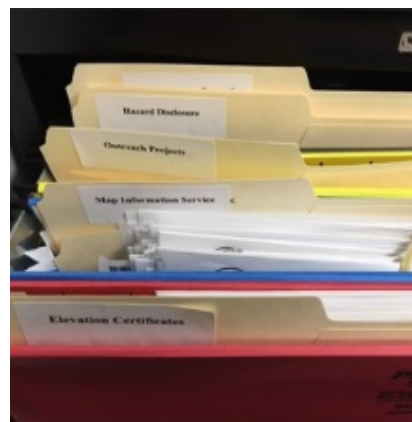


Other...

- Document things as they happen
- Build partnerships and relationships
- Increase administrative capacity
- Ensure CRS information is shared and transferred



Image from Pam Beach County, FL.



Activity 310 Elevation Certificates	1/18/
Activity 320 Map Information Service	12/20
Activity 330 Outreach Projects	1/10/
Activity 350 Flood Protection Information	8/10/
Activity 360 Flood Protection Assistance	2/16/
Activity 410 Floodplain Mapping	8/3/21
Activity 420 Open Space Preservation	11/30
Activity 430 Higher Regulatory Standard	7/21/
Activity 440 Flood Data Maintenance	3/27/
Activity 450 Stormwater Management	1/20/
Activity 501-Repetitive Loss	2/14/
Activity 510 Floodplain Management Pla...	1/26/
Activity 520 Acquisition and Relocation	11/22
Activity 540 Drainage Sytem Maintenance	1/6/21
Activity 610 Flood Warning Program	3/2/21

Image from Amber Gray, City of Birmingham, AL.



CRS for Community Resilience Website

<https://www.floodsciencecenter.org/products/crs-community-resilience/>

OR

- 1) Go to: <https://www.floodsciencecenter.org>
- 2) Click “Research Services” in upper right-hand corner
- 3) Click “Featured Investigations” toward the bottom center part of page.
- 4) Click “CRS Green Guide”
- 5) Click “CRS for Community Resilience”

CRS for Community Resilience

The goal of CRS for Community Resilience is to increase the number of communities making voluntary, effective measures to increase flood resilience. This project promotes CRS participation, provides guidance on actions that increase a community's rating, and works directly with communities to increase their resiliency through the CRS process.

This project aims to:

1. Get more communities to participate in the CRS, and
2. Increase resiliency by having a road map to undertake activities that strengthen the natural ecosystems and reduce growing vulnerability to floods

Have a question, recommendation or CRS success story of your own? [Share it with us!](#)



CRS for Community Resilience Green Guide

Learn more about the Green elements of CRS to enhance the resiliency of your community and the natural environment.



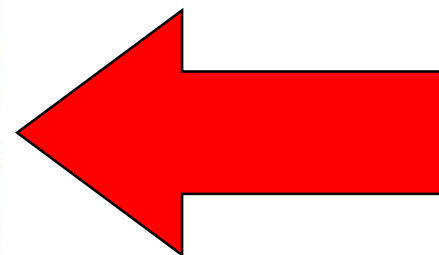
CRS Green Guide Element Profiles

Learn about the CRS Elements and Activities that can help your community increase its CRS Rating and its resiliency.



CRS Green Guide Success Stories

Learn how communities lowered their insurance premiums and increased their resiliency by achieving a higher CRS Rating.



Resources

Resources pertaining to CRS for Community Resilience

[Read More](#)



Workshops & Webinars

View upcoming CRS for Community Resilience Workshops and Webinars on a calendar

[Read More](#)