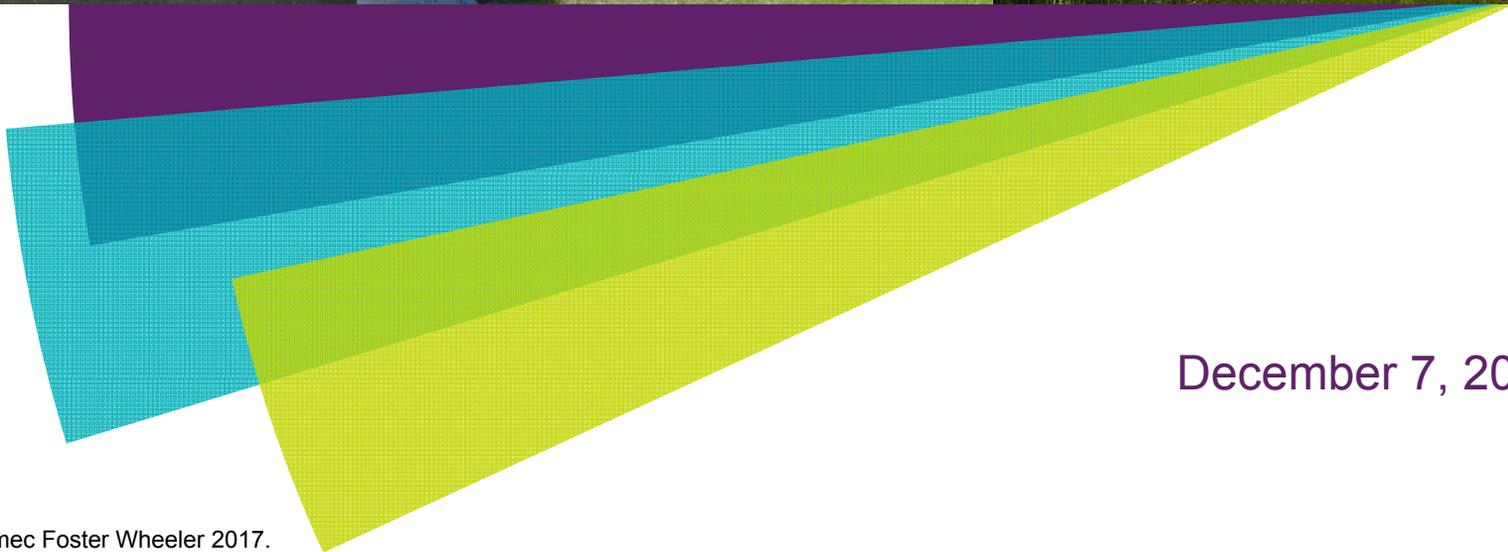


DHEC Living Shorelines Working Group CRS Activity 420 - Open Space Preservation



December 7, 2017

Agenda

- ▶ Background on Community Rating System (CRS) Program
- ▶ Interface of CRS and Living Shorelines
- ▶ Folly Beach, SC CRS Open Space
- ▶ Questions

Goals of the CRS

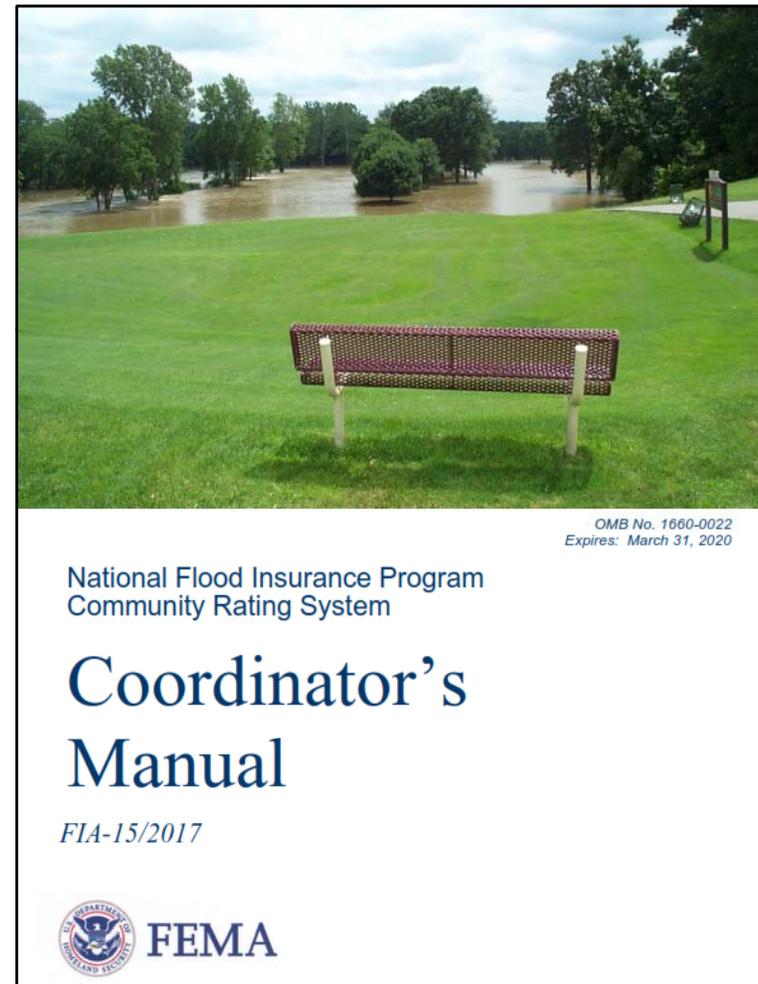
1. Reduce and avoid flood damage to insured buildings
2. Strengthen and support the insurance aspects of the NFIP
3. Foster comprehensive floodplain management



CRS Coordinator's Manual

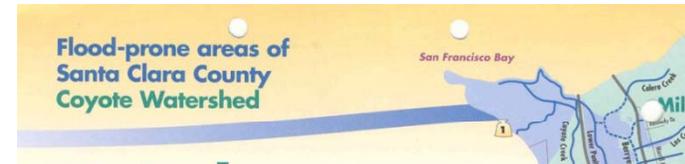
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CRS Coordinator's Manual vi Edition: 2017



4 Series of Activities

- 300 Public Information
- 400 Mapping and Regulations
- 500 Flood Damage Reduction
- 600 Warning and Response



4 Series of Activities

CRS Activities and Elements

<u>300 Series: Public Information Activities</u>	Max	<u>400 Series: Mapping and Regulations</u>	Max
310 (Elevation Certificates)		410 (Floodplain Mapping)	
a EC Elevation Certificates (after CRS application d	38	a NS New study	290
b ECPO Elevation Certificate on post-FIRM buildings	48	b LEV Leverage	N/A
c ECPR Elevation Certificate on pre-FIRM buildings	30	c SR State review	60
320 (Map Information Service)		d HSS Higher study standards	160
a MI1 Providing insurance information from the FIRM	30	e FWS Floodway standard	110
b MI2 LIMWA/floodway info/CBRS area	20	f MAPSH Special hazards mapping	50
c MI3 Other flood problems not shown on FIRM	20	g CTP Cooperating technical partner	132
d MI4 Flood depth data	20	420 (Open Space Preservation)	
e MI5 Special flood-related hazards	20	a OSP Preserved open space	1,450
f MI6 Historical flood information/repetitive flood los:	20	b DR Deed restriction	50
g MI7 Natural floodplain functions	20	c NFOS Natural functions open space	170
330 (Outreach Projects)		d SHOS Special hazards open space	50
a OP Outreach projects	200	e OSI Open space incentives	250
b FRP Flood response preparations	50	f LZ Low density zoning	600
c PPI Program for Public Information bonus	80	g NSP Natural shoreline protection	120
d STK Stakeholder bonus	50	430 (Higher Regulatory Standards)	
340 (Hazard Disclosure)		a DL Development limitations	1,330
a DFH Real estate agent disclosure of SFHA	35	b FRB Freeboard	500
b ODR Other disclosure requirements	25	c FDN Foundation protection	80
c REB Real estate brochure	12	d CSI Cumulative substantial improveme	90
d DOH Disclosure of other hazards	8	e LSI Lower substantial improvements	20
350 (Flood Protection Information)		f PCF Protection of critical facilities	80
a LIB Library	10	g ENL Enclosure limitations	240
b LPD Locally pertinent documents in the library	10	h BC Building code	100
c WEB Website	105	i LDP Local drainage protection	120
360 (Flood Protection Assistance)		j MHP Manufactured home park	15
a PPA Property protection advice	40	k CAZ Coastal A Zone regulations	650
b PPV Advice after a site visit	45	l SHR Special hazards regulations	100
c FAA Financial assistance advice	15	m OHS Other higher standards	100
d TNG Training	10	n SMS State mandated standards	20
370 (Flood Insurance Promotion)		o RA Regulations Administration	67
a FIA Flood insurance assessment	15		
b CP Coverage plan	15		
c CPI Plan implementation	60		
d TA Technical assistance	20		

19 Activities

94 Elements of Credit

Benefits to a Community

Benefits

- ✓ Money stays in the community
- ✓ Insurance savings offset costs
- ✓ Better organized programs
- ✓ Technical assistance
- ✓ Public information builds constituency
- ✓ Incentive to keep implementing
- ✓ Community pride



\$100
Taxes

\$150
CRS



Interface of CRS and Living Shorelines

- ▶ Activity 420 Open Space Preservation
 - ▶ OSP Credit
 - ▶ NFOS Credit
 - ▶ NSP Credit
 - ▶ OSI (Open Space Incentives)

- ▶ Activity 430 Higher Regulatory Standards
 - ▶ CER Credit (Coastal Erosion-Hazard Regulations)
 - ▶ OHS Credit (Other Higher Standards)

- ▶ Activity 510 – Floodplain Management Planning
 - ▶ NFP Credit – Natural Floodplain Functions Plan

- ▶ Folly Beach, SC – Open Space Preservation

Objectives:

- (1) Prevent flood damage by keeping floodprone lands free of development, and
- (2) Protect and enhance the natural functions of floodplains.



420 – Open Space Preservation

Manual Page 420-4

422.a Open space preservation (OSP)

Credit criteria

- (1) Parcel must be in the regulatory floodplain
SFHA + areas regulated in the X Zone



(2) Parcel must be “open space”

“Open space” = no buildings, storage, or filling



420 – Open Space Preservation

Manual Page 420-4



“Open space” does not include

- (a) Parcels not counted in the impact adjustment map (open bodies of water, federal land, etc..)



420 – Open Space Preservation

Manual Page 420-4

“Open space” does not include
(b) Areas with impervious surfaces



420 – Open Space Preservation

Manual Page 420-4

“Open space” does not include
(c) Areas with buildings on them



“Open space” does not include

(d) Where fill, storage, or other encroachments are allowed



420 – Open Space Preservation

Manual Page 420-5

“Open space” does not include

(e) Streets, railroad, levee, linear rights of way, etc..



420 – Open Space Preservation

Manual Page 420-5

“Open space” does not include

- (e) Streets, railroad, levee, linear rights of way, etc..
Including ditch or channel rights of way



420 – Open Space Preservation

Manual Page 420-5

“Open space” does not include

(e) Streets, railroad, levee, linear rights of way, etc..

Exception: waterside greenways



420 – Open Space Preservation

Manual Page 420-6

“Open space” does not include

(f) Land not intended to be preserved as open space



420 – Open Space Preservation

Manual Page 420-6

(3) Parcel must be preserved as “open space”

(a) Publicly owned land, city park, beach, school field, etc.



420 – Open Space Preservation

Manual Page 420-6

- (3) Parcel must be preserved as “open space”
- (b) Private wildlife or nature preserve, church camp, scout camp, hunting club, non-profit golf course



(3) Parcel must be preserved as “open space”

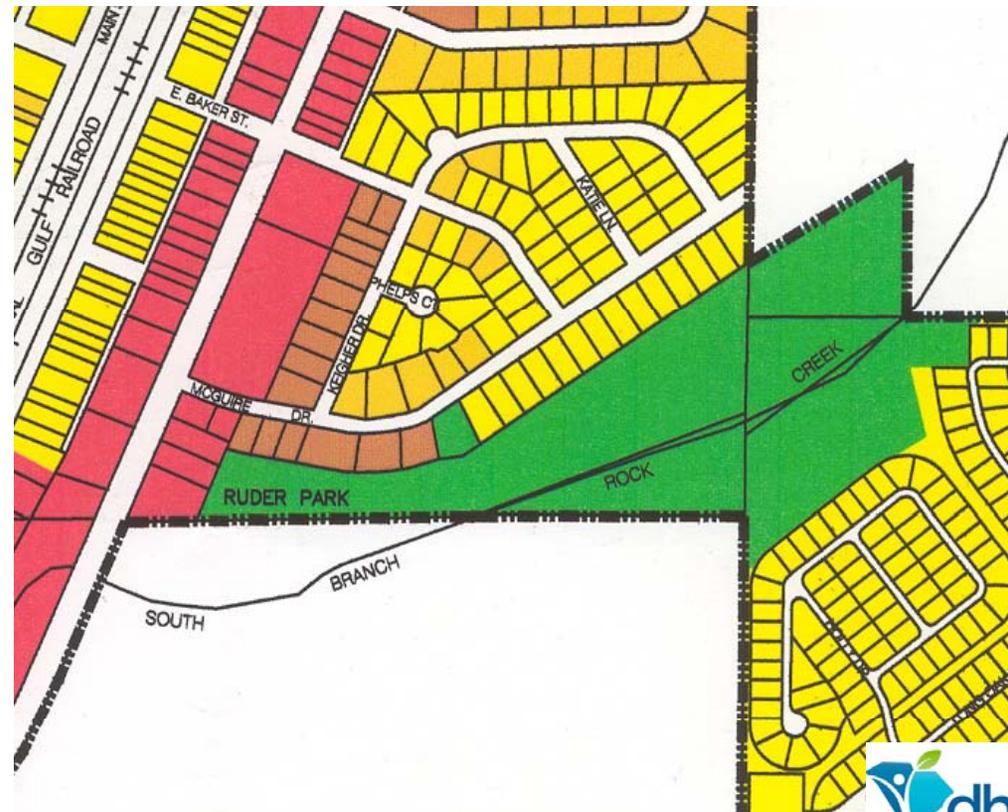
(c) Prohibitory development regulations (no buildings, filling or storage)

Zoning Districts

Commercial

Single Family Res.

Conservation



420 – Open Space Preservation

Credit Points

OSP = 1,450 points, based on the amount of the SFHA that is preserved as open space

Impact Adjustment

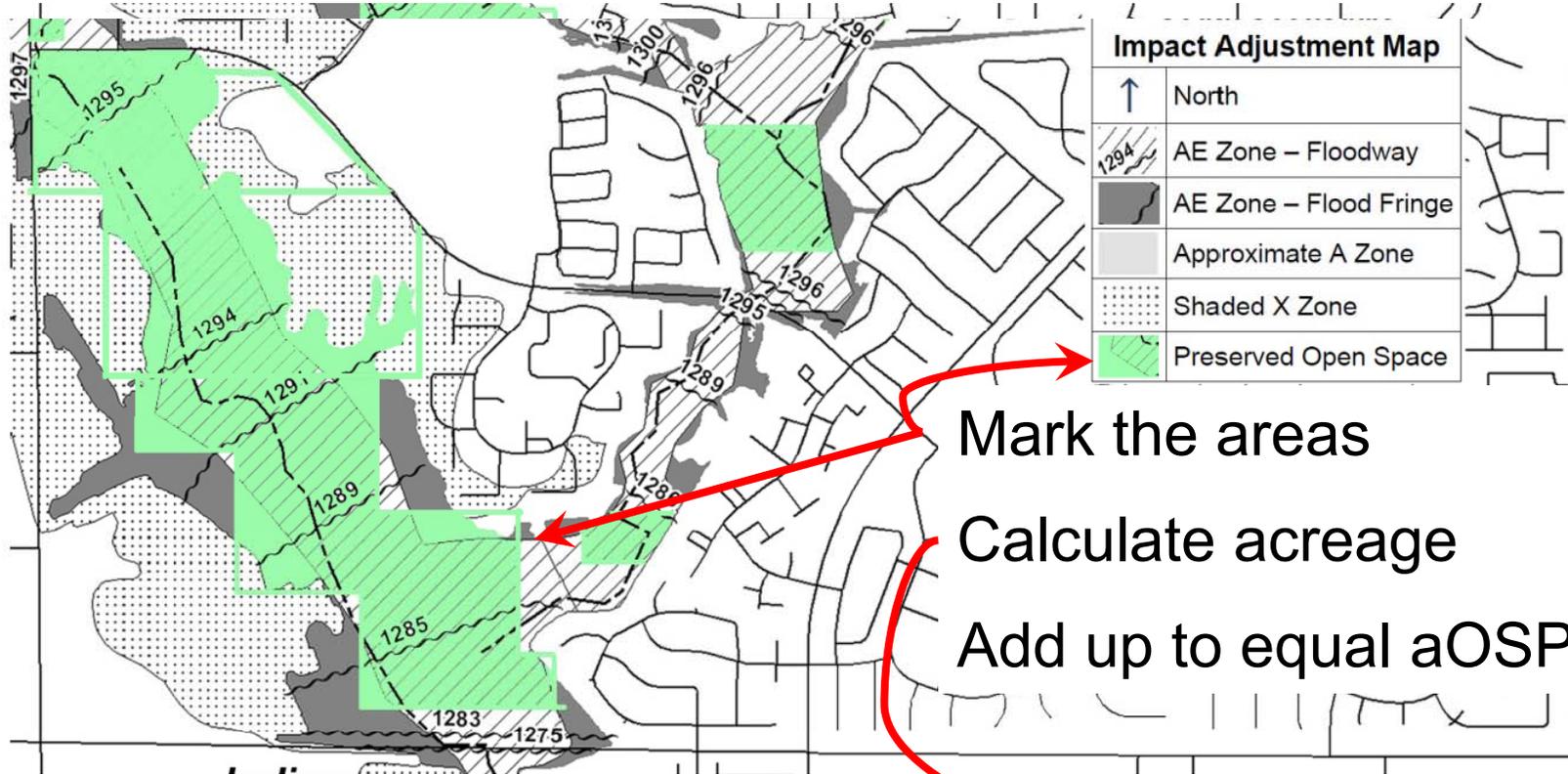
OSP credit is adjusted based on the ratio of preserved open space areas in the regulatory floodplain to the area of the SFHA. Section 403 has additional information on impact adjustments for areas. The areas qualifying for OSP need to be marked on an impact adjustment map.

$$rOSP = \frac{aOSP}{aSFHA}, \text{ where}$$

aOSP = the size of the area(s) preserved as open space (OSP) in the regulatory floodplain, and

aSFHA = the size of the community's SFHA shown on its FIRM

420 – Open Space Preservation



Mark the areas

Calculate acreage

Add up to equal aOSP

Preserved Open Spaces
Indian Bend Wash Parks
South Scottsdale Country Club
Undeveloped floodway parcels
Total areas preserved as open space
Vacant areas subject to incentives

Credit	Size (acres)
OSP	143.2
OSP, DR	55.3
OSP	<u>44.4</u>
aOSP	242.9
OSI4, OSI5	88.7

420 – Open Space Preservation

422.c Natural functions open space (NFOS)

Open space in its natural state provides more benefits:

- Flood storage
- Reduced sedimentation
- Water quality
- Aquifer recharge
- Richer soils
- Biodiversity
- Habitat



420 – Open Space Preservation

Manual Page 420-15



NFOS1 Parcel in its natural state

Examples:

- Areas not built on
- Restored to natural state
- Designated by recognized program

Not credited:

- Scenic designation
- Recreational areas
- Clear cutting allowed
- Dune/beach nourishment



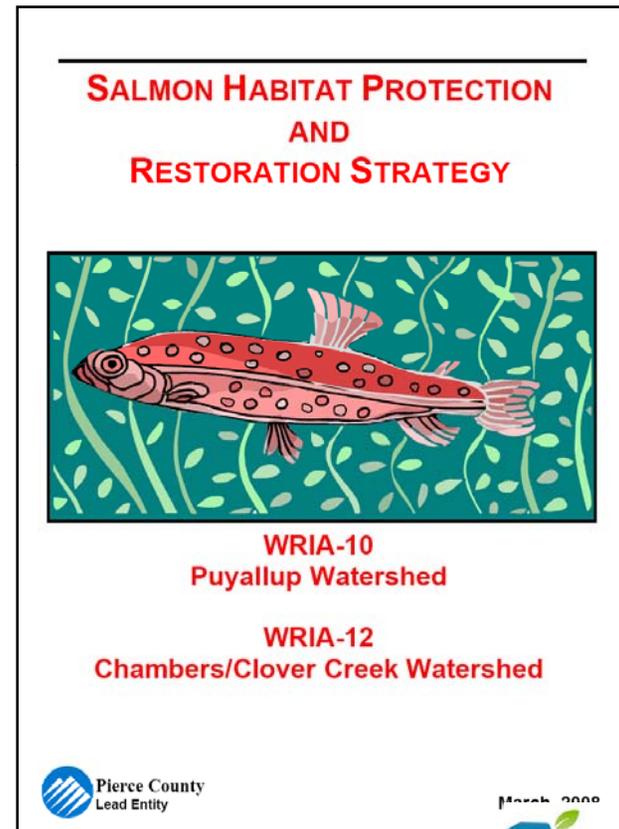
NFOS2 Parcel in its natural state

Designated in Plan:

- Areas not built on
- Restored to natural state
- Designated by recognized program
- Parcels credited in NFOS1

Types of Plans

- Habitat Protections
- Habitat Conservation
- Habitat Restoration
- Fish & Wildlife or State Approved



420 – Open Space Preservation

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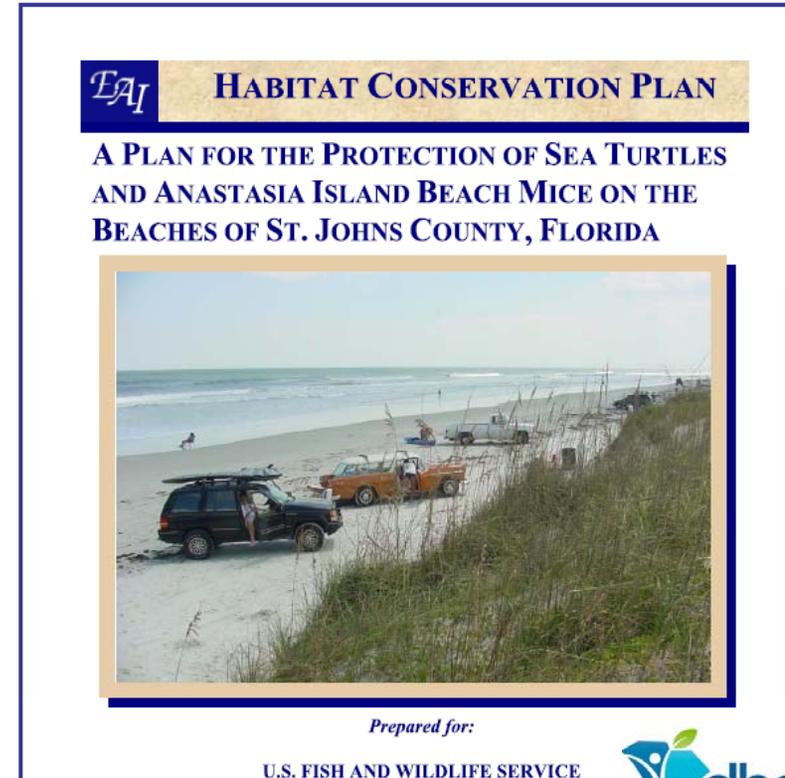
NFOS3 Parcel in its natural state

Designated as Critical Habitat:

- Areas not built on
- Restored to natural state
- Designated by recognized program
- Parcels credited in NFOS1
- Threatened or endangered species

Types of Plans

- Habitat Protections
- Habitat Conservation
- Habitat Restoration
- Fish & Wildlife or State Approved



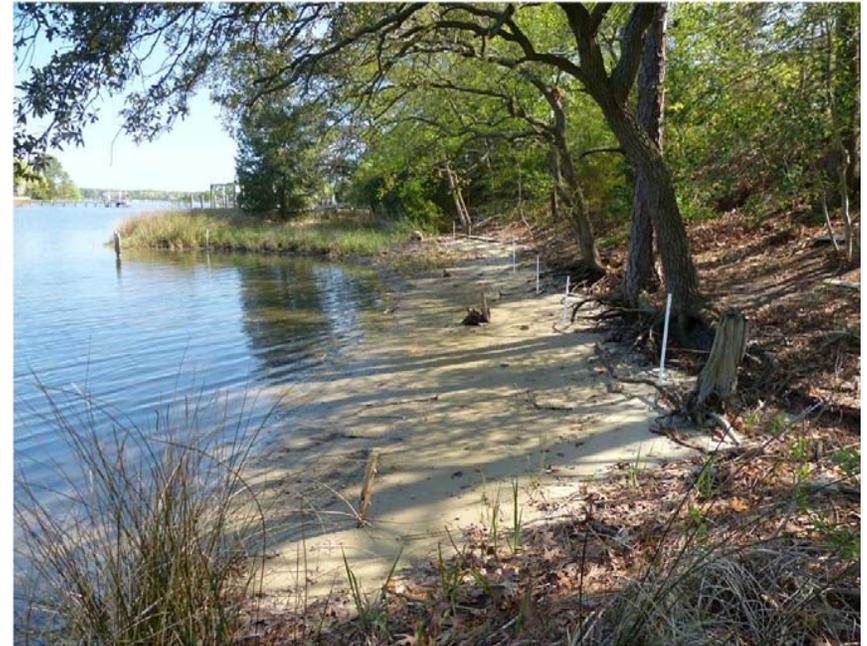
Prepared for:
U.S. FISH AND WILDLIFE SERVICE



NSP Natural Shoreline Protection

Natural channels and shorelines:

- Protect natural floodplain functions
- Create places for aquatic and riparian habitat
- Allow channels & shorelines to follow their natural processes
- Encourage natural channels & shorelines that provide water quality benefits for runoff



420 – Open Space Preservation

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NSP Natural Shoreline Protection

Natural channels and shorelines:

1. The Program or Regulation to protect natural shorelines must prohibit:
 - For channels - Riprap, armoring, channel alterations, dredging, filling, grubbing or removing vegetation.
 - For shorelines, lakes or oceans – alterations to a beach including nourishment projects, alteration to sand dunes and construction of seawalls, bulkheads, armoring or other shoreline stabilization structures



420 – Open Space Preservation

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NSP Natural Shoreline Protection

Natural channels and shorelines:

2. The Program or Regulation may allow:

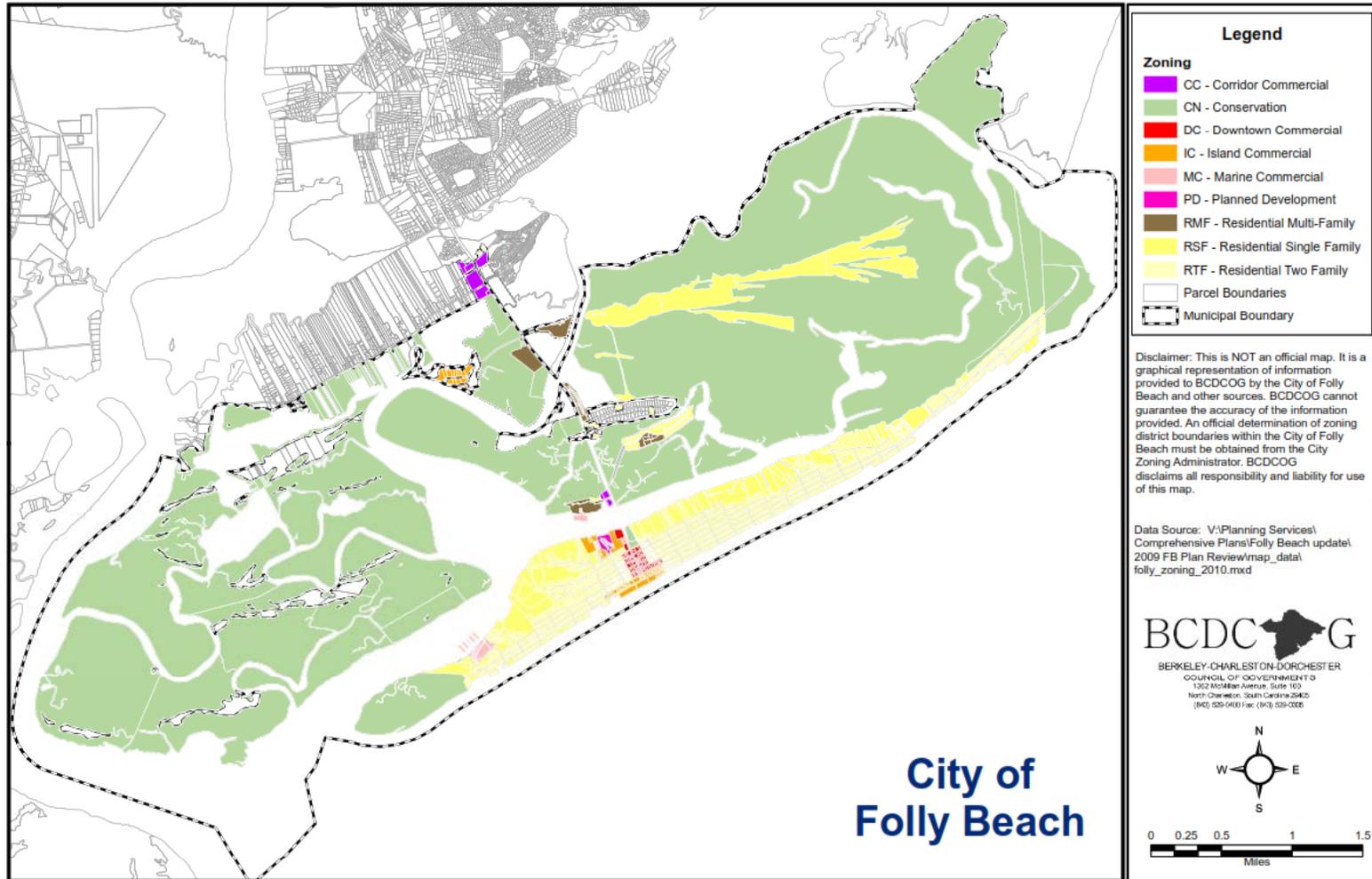
- Human alterations that benefit the natural floodplain functions, such as removing a levee, restoring habitat, or planting to preserve sand dunes, provided the projects don't prevent channel or shoreline movement or reduce other natural floodplain functions



Open Space Preservation In Folly Beach

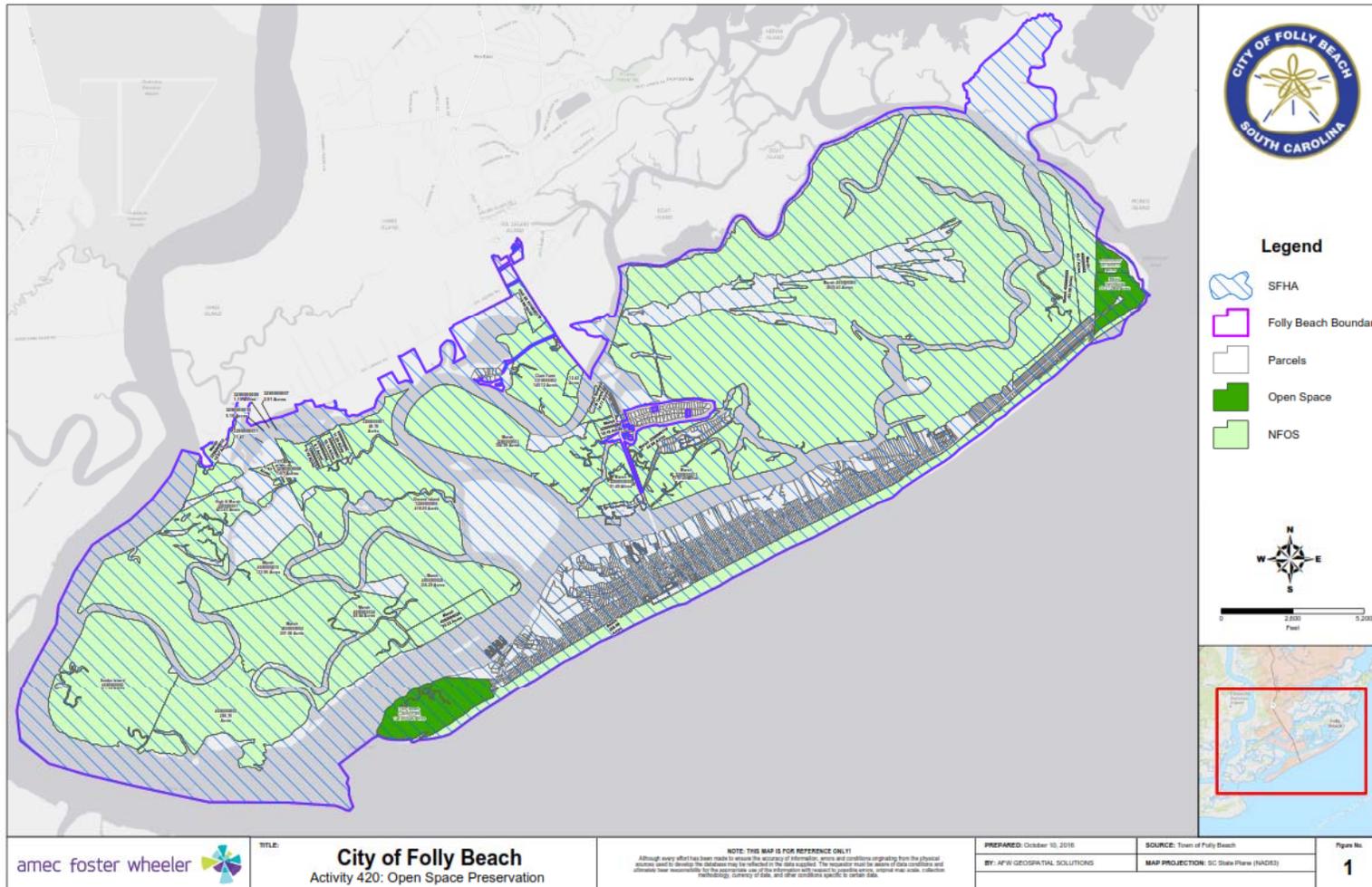


Open Space Preservation In Folly Beach



Conservation Zoning

Open Space Preservation In Folly Beach





Open Space Preservation In Folly Beach

PID	Owner Address	OS Acreage	NFOS Parcel
3280000006	SINGLETON SUVESTER L SR SINGLETON BRENDA A, 5477 MARIE ST NORTH CHARLESTON , SC 29406-3811	61.49	Yes
3310000019	CLAM FARM PARTNERSHIP LLC , 3510 WILMOT AVE COLUMBIA , SC 29205-2729	12.42	Yes
3280000110	LITTLE OAK ISLAND COMMUNITY ASSOCIATION, 349 FOLLY RD CHARLESTON , SC 29412-2508	44.88	Yes
3280000001	COOKSEY JOAN M BERRY ALLENE M, 2223 FOLLY RD CHARLESTON , SC 29412-9542	14.77	Yes
3290000010	HORLBECK JOHN W ETAL, 203 KENILWORTH RD SUMMERVILLE , SC 29485-3494	5.16	Yes
4500000024	GPS PARTNERS LLC , 1741 MIDDLE ST SULLIVANS ISLAND , SC 29482	49.84	Yes
4500000005	K AND A ACQUISITION GROUP LLC, 25 PAGE AVE ASHEVILLE , NC 28801-2707	2525.43	Yes
4500000006	SOUTH CAROLINA DEPT OF NATURAL RESOURCES, 1000 ASSEMBLY ST COLUMBIA , SC 29201-3117	59.20	N/A
3290000008	GREEN CHAS E , 1948 SOL LEGARE RD CHARLESTON , SC 29412-8522	1.07	Yes
3290000001	WILDER HARRISON EST , 1892 SOL LEGARE RD# A CHARLESTON , SC 29412-8535	48.78	Yes
3290000011	LAFAYETTE JOHN EST OF , 0 PO BOX 12446 CHARLESTON , SC 29422-2446	11.47	Yes
4500000008	STONAKER DOLORES VAUGHAN ETAL, 812 CANARY DR CHARLESTON , SC 29414-5459	63.10	Yes
3290000012	HOLLINGS ADOLPH G CORNISH GEORGE R F JR, 126 CHURCH ST CHARLESTON , SC 29401-2907	12.97	Yes
4500000001	BARRON DAVID H , 25786 GEORGETOWN STATION WASHINGTON , DC 20007	423.43	Yes
4500000028	FITZSIMMONS PATRICK , 0 PO BOX 51 SULLIVANS IS , SC 29482-0051	53.22	Yes
4500000025	CRAIGIE JAMES E , 586 WATER TURKEY RETREAT CHARLESTON , SC 29412-9047	336.29	Yes
3290000006	HORLBECK JOHN WILCOX ETAL, 203 KENILWORTH RD SUMMERVILLE , SC 29485-3494	418.09	Yes
4500000007	SOUTH CAROLINA DEPT OF NATURAL RESOURCES, 1000 ASSEMBLY ST COLUMBIA , SC 29201-3117	20.55	N/A
3280000004	BATES BOBBIE JEAN ETAL , 0 PO BOX 487 BLACKVILLE , SC 29817-0487	10.16	Yes
3290000004	SINGLETON SARAH , 618 FLEMING RD CHARLESTON , SC 29412-2415	8.70	Yes
3280000013	LITTLE OAK ISLAND COMMUNITY ASSOCIATION, 349 FOLLY RD CHARLESTON , SC 29412-2508	170.49	Yes
3290000009	ALLEN MARILYN ETAL, 133 HESTER ST CHARLESTON , SC 29403-3203	1.19	Yes
3290000003	GAILLARD JOSEPH EST , 2076 SOL LEGARE RD CHARLESTON , SC 29412-8528	10.14	Yes
3290000007	WILDER CHRISTINA , 20208 116TH AVE SAINT ALBANS , NY 11412-3210	2.91	Yes
3310000002	CLAM FARM PARTNERSHIP LLC , 3510 WILMOT AVE COLUMBIA , SC 29205-2729	145.12	Yes
4500000004	MULVIHILL DENISE , 0 PO BOX 988 FOLLY BEACH , SC 29439	251.58	Yes
3290000002	WILDER HARRISON EST , 1892 SOL LEGARE RD# A CHARLESTON , SC 29412-8535	11.24	Yes
3280000003	TRULUCK ISLAND LLC , 1014 SAINT ANDREWS BLVD CHARLESTON , SC 29407-7139	304.99	Yes
4500000015	CITADEL THE MILITARY COLLEGE OF SOUTH CAROLINA THE, 0 THE CITADEL CHARLESTON , SC 29409-0001	133.96	Yes
4500000002	SNAKE LLC , 4390 BELLE OAKS DR STE 100 N CHARLESTON , SC 29405-8559	377.92	Yes
4500000009	SC PRIME PROPERTIES LLC , 103 PARIS LN SUMMERVILLE , SC 29483-9737	93.56	Yes
4500000003	SIRISKY FAMILY TRUST INC , 1422 RIVER FRONT DR CHARLESTON , SC 29407-3610	285.76	Yes
3310000170	KINGS FLATS LLC , 230 ADLEY WAY GREENVILLE , SC 29607-6511	19.84	Yes
3250000001	CHARLESTON COUNTY PARK RECREATION AND TOURIST DISTRICT, 861 RIVERLAND DR CHARLESTON , SC 29412-3107	134.83	N/A
	Beach SC Publically owned Beach	265.98	N/A
	Total Open Space Preservation Acreage	6390.53	
	Total Acreage of the SFHA	10069.47	5909.97
	OSP/SFHA	63%	



Questions

