



- MANAGING MITIGATION banks
 & CREDIT SALES SINCE 2004
- STARTED Mbg in 2017
- Act as a Liaison
- Due-diligence
- Permitting
- Marketing/sales



MITIGATION BANKING 101



History of mitigation banking

current state of mitigation banking

The Future of mitigation banking



WHATISA MITIGATION BANK?

A Mitigation bank is the preservation, enhancement, restoration or creation of a wetland, stream, or habitat conservation area which offsets, or compensates for, expected adverse impacts to similar nearby ecosystems.



WHY #CleanWaterRules

Clean water upstream means cleaner water downstream.

Our Clean Water Rule protects the streams and wetlands that feed our

rivers, lakes, bays and coastal waters. These waters are critical for agriculture, healthy communities, our economy and our way of life.

60 % of stream miles in the U.S. only flow seasonally or after rain.

Streams and wetlands filter pollution, reduce flooding and give fish and wildlife a place to live.

One-third of threatened and endangered species live only in wetlands.

Farms depend on clean water for irrigation, crops and livestock. Normal
farming and
ranching
activities – like
planting,
harvesting
and moving
livestock
– won't be
affected by the
Clean Water
Rule.

1 in 3
Americans
get drinking
water from
seasonal
and raindependent
streams.

Tourism,
fishing,
recreation,
energy
production,
manufacturing
and other
industries that
depend on
clean water
add billions of
dollars to our
economy every
year.

19 million people per year go paddling, spending \$86 billion on gear and trips.

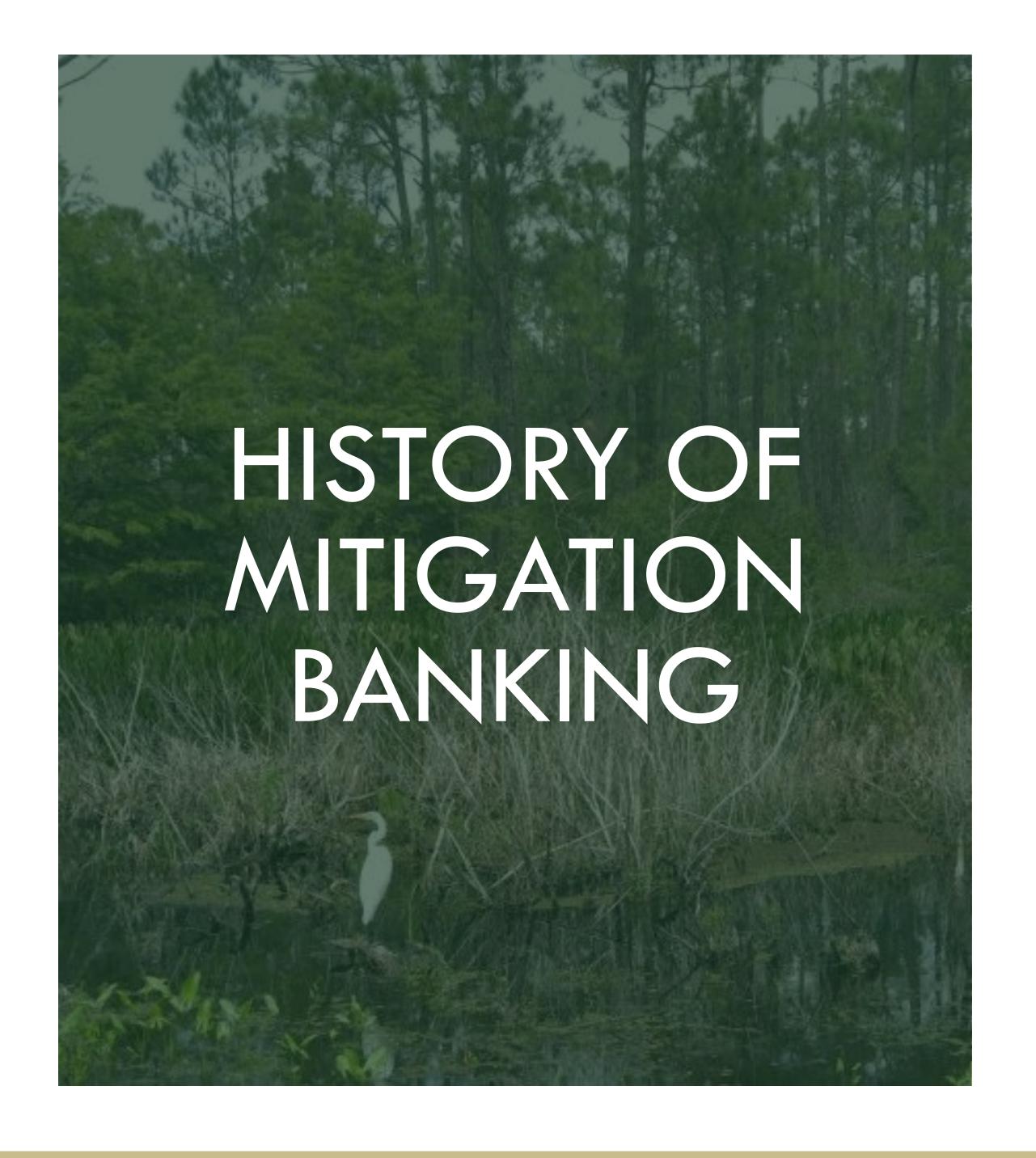
Fishing
adds \$48
billion to
the economy every
year, and
supports
nearly a
million jobs.



www.epa.gov/cleanwaterrule

The Clean Water Rule protects streams and wetlands that we depend on for our health, communities, and economy.





- 1972: The Clean Water Act (CWA) was passed: avoid and minimize the impact on designated water bodies and provide compensatory mitigation for unavoidable impacts.
- 1988: a national policy of 'No Net Loss' of wetland values and functions emerged
- 1993: The concept of mitigation banking started taking shape
- 1995: The guiding principles released by the U.S.

 Environmental Protection Agency (USEPA) and
 the U.S. Army Corps of Engineers (USACE) on the role
 of mitigation banks in the CWA 404 program were
 expanded with guidelines on the establishment and the
 use of mitigation banks.
- 2008: after four years of planning, a federal rule to establish standards for mitigation banks, in-lieu fee programs and individual mitigation (also called permittee-responsible mitigation) was implemented. These standards are consistent with those in the CWA 404.
- 2015: Memorandum on "Mitigating Impacts on Natural Resources from Development and Encouraging Related Private Investments"

BEFORE MITIGATION BANKS

Onsite and (single project) Offsite mitigation projects were challenged on their effectiveness.

Large scale environmental restoration projects are more beneficial than small/individual postage-stamp sized mitigation projects.



Mitigation banking recognized by EPA and ACOE for providing:

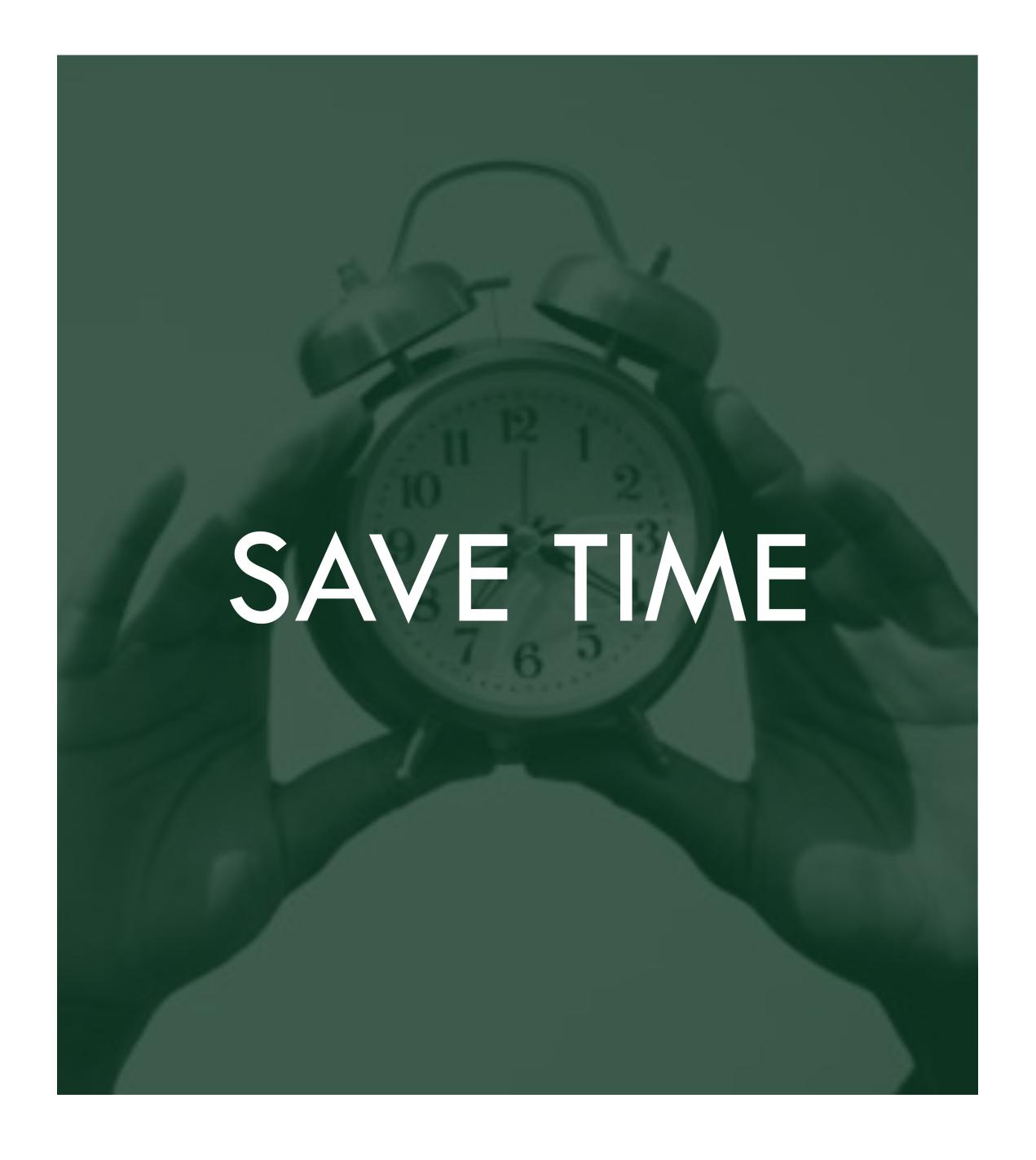
- Easier Monitoring
- Long Term Stewardship
- Unambiguous transfer of liability for assuring mitigation success from the permittee to the mitigation banker
- Regulatory Simplification for Applicants and Regulators (reducing time!)



Benefits of mitigation banking

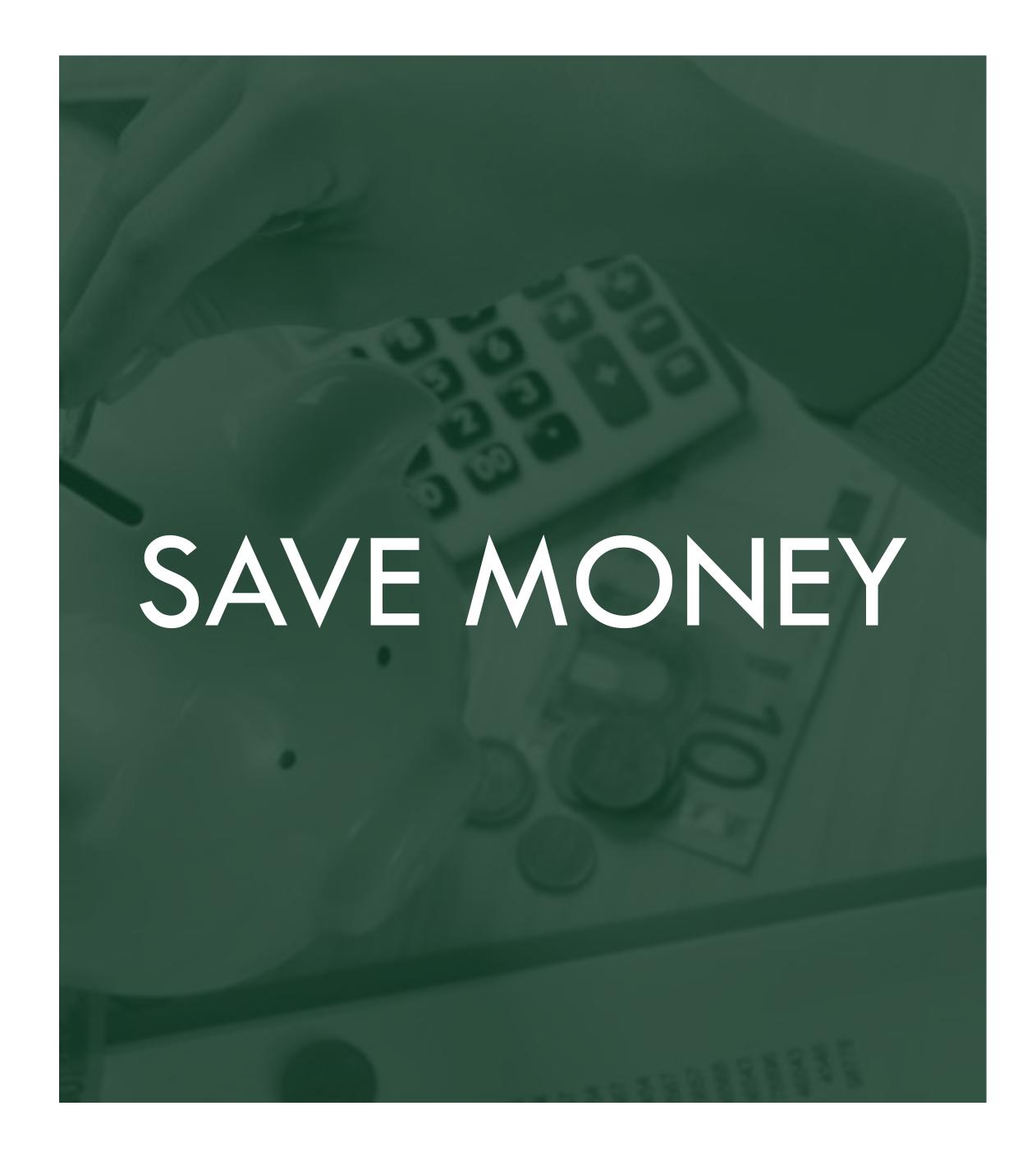






- Reduces Regulator's time to review and process permit applications.
- Quicker permit turnaround since the mitigation banks are already constructed and functioning.
- Eliminates Developer's requirements to subcontract design, construction, maintenance & monitoring.





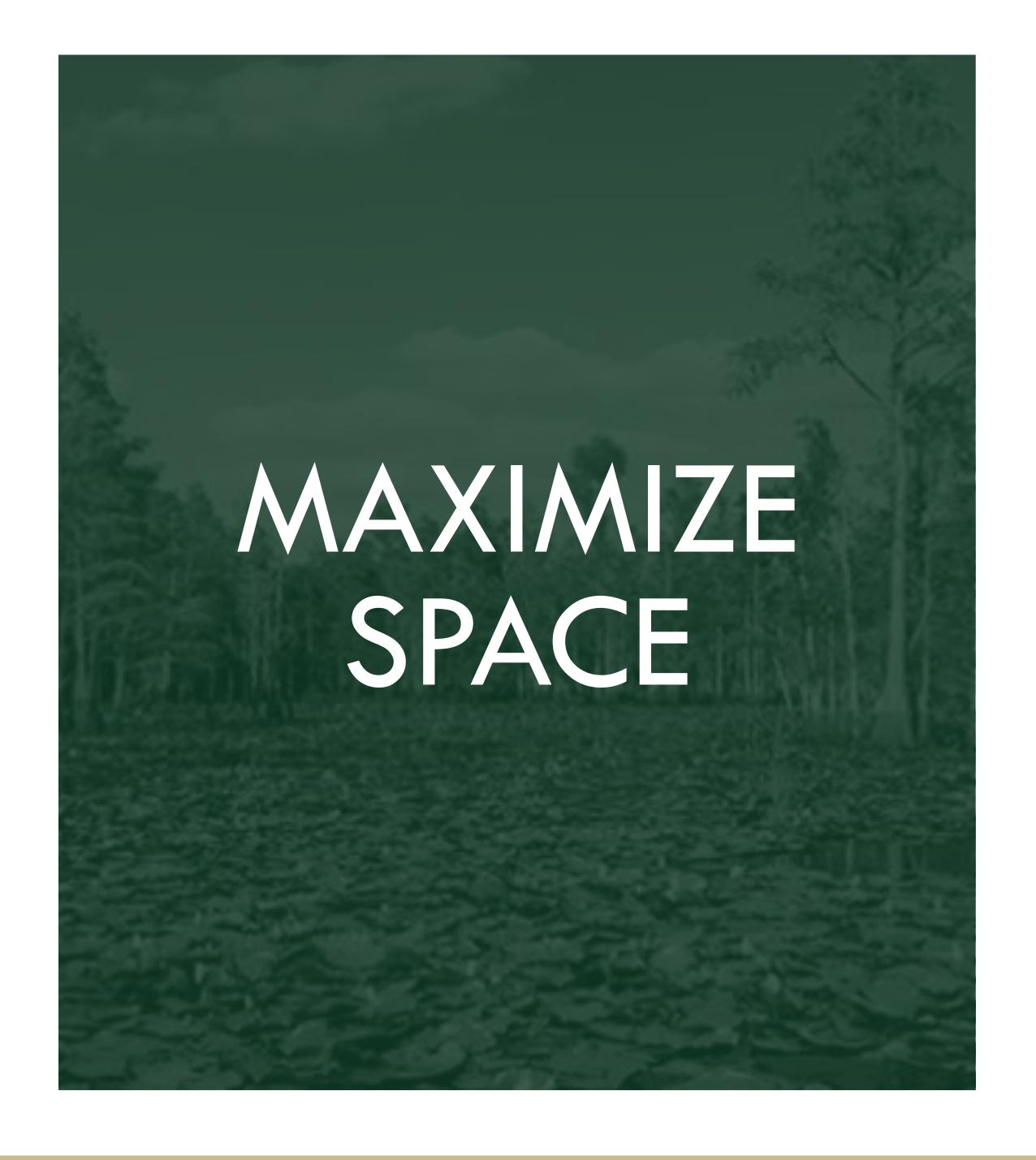
- Cost of land
- Permitting
- legal
- Construction
- Monitoring & Maintenance Activities



ELIMINATES LIABILITY/RISK

- Purchasing credits from a mitigation bank transfers all risk to the mitigation banker.
- Unexpected money to resolve wetlands for noncompliance projects.





Buying credits from a mitigation bank, allows the developer to maximize his usable land and put that space to its highest and best use.

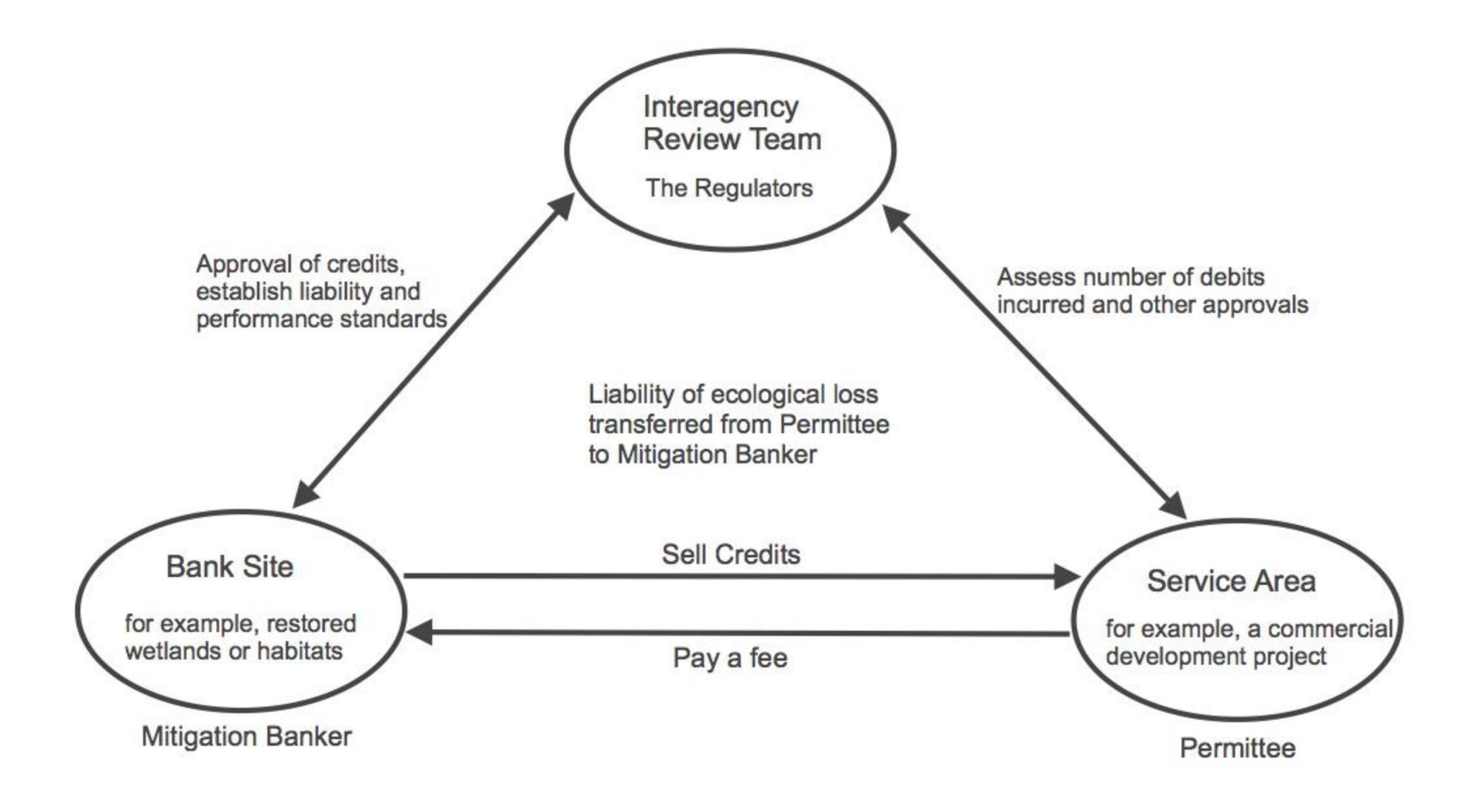




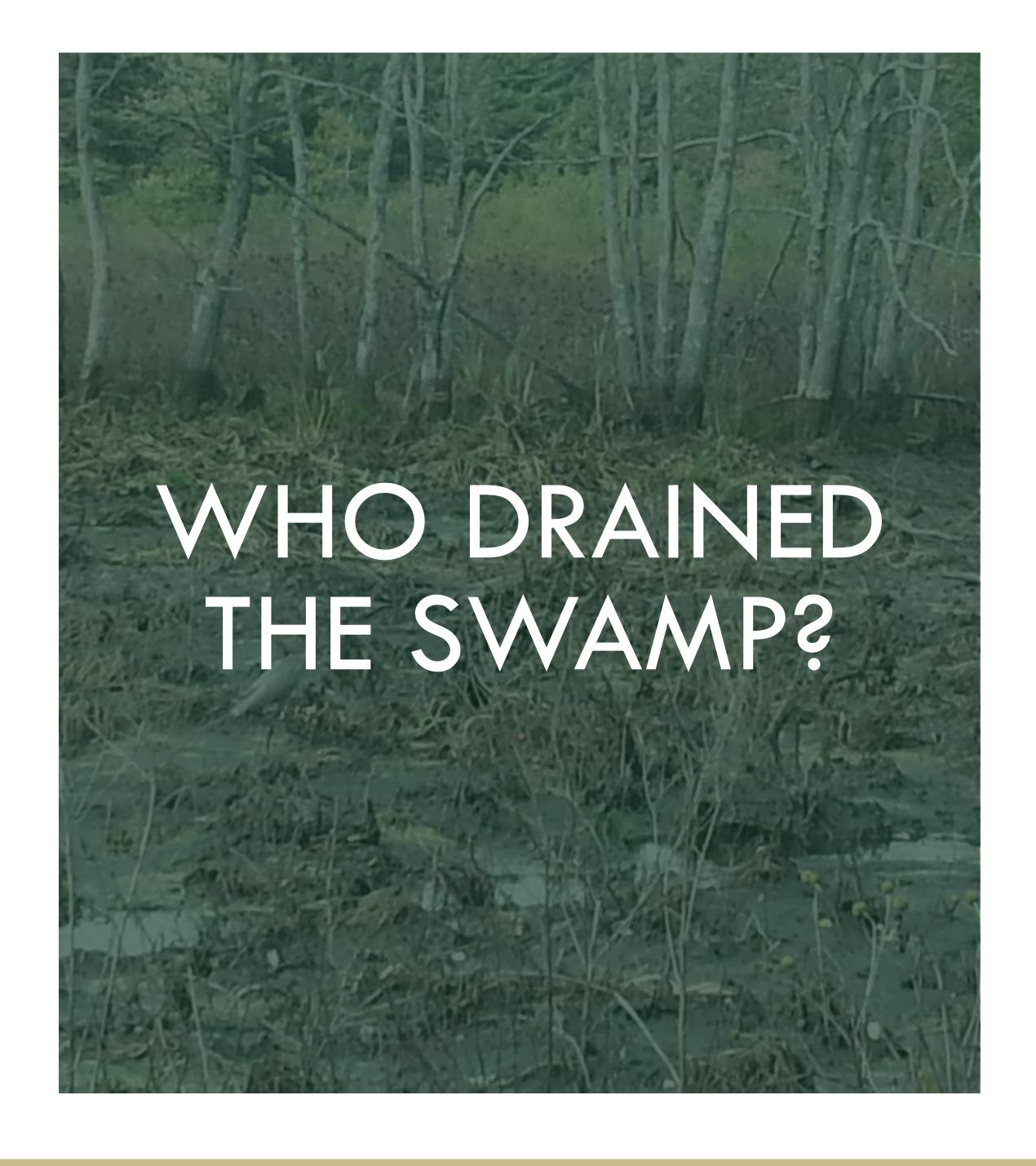
Financial resources, biological planning & scientific expertise is consolidated to increase the potential for a long-term mitigation plan.



Mitigation credit establishment process







- By the 1960's, political, financial, and institutional incentives to drain or destroy wetlands were in place. The Federal Government encouraged land drainage and wetland destruction through a variety of legislative and policy instruments.
- the Watershed Protection and Flood Prevention Act (1954) directly and indirectly increased the drainage of wetlands near flood-control projects.
- Since the 1970's, there has been increasing awareness that wetlands are valuable areas that provide important environmental functions.







The Federal Compensatory Mitigation Rule

- The Federal Compensatory Mitigation Rule identifies a hierarchy of mitigation bank credits as the first option on the hierarchy opposed to onsite and offsite mitigation.
- Therefore, when an applicant proposes permittee-sponsored mitigation (onsite or offsite mitigation) within an established federal mitigation bank service area with available credits, it is important that the USACE document compelling reasons to depart from the hierarchy of mitigation preference established by rule in 33 CFR §332.3(b).
- The preference expressed for mitigation banks was a deliberate, thoughtful decision of the USACE and EPA based upon the science-based recommendations of the National Research Council's 2001 report, Compensating for Wetland Losses under the Clean Water Act. It was recognized during rule development that mitigation banks had a demonstrably better record of SUCESSFUL mitigation.





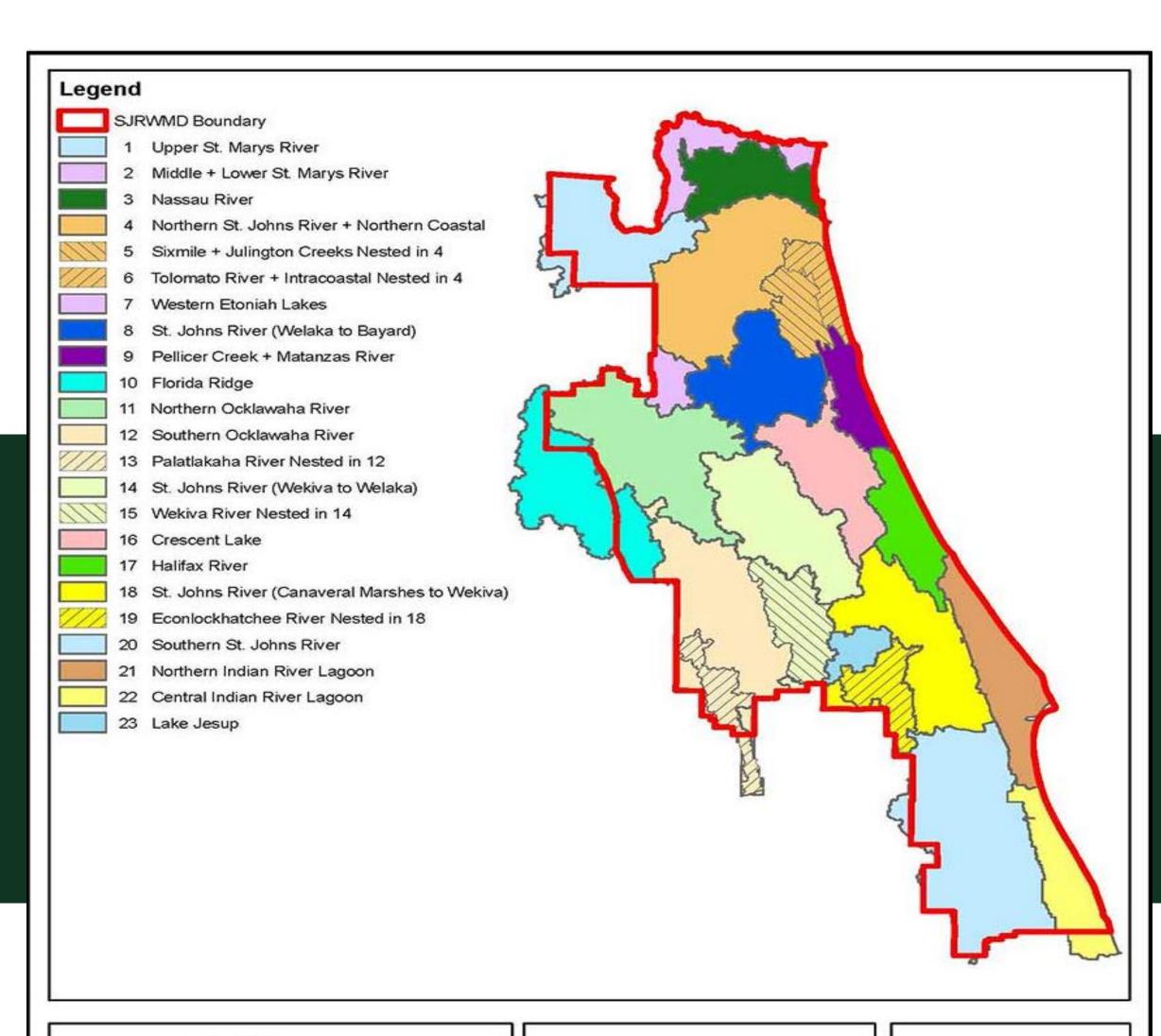
- There are currently approx. 70 federally approved permitted mitigation banks for public use (and approx. 40 mitigation banks pending federal approval) within the Jacksonville/USACE District which encompasses _____ Drainage Basins of the 5 Water Management Districts located throughout Florida.
- Can you guess how many drainage basins are in Florida?
- Can you name all 5 WMD?





Each Mitigation Bank Permit identifies a geographic area served by the permitted mitigation bank within a defined region (mitigation service area).



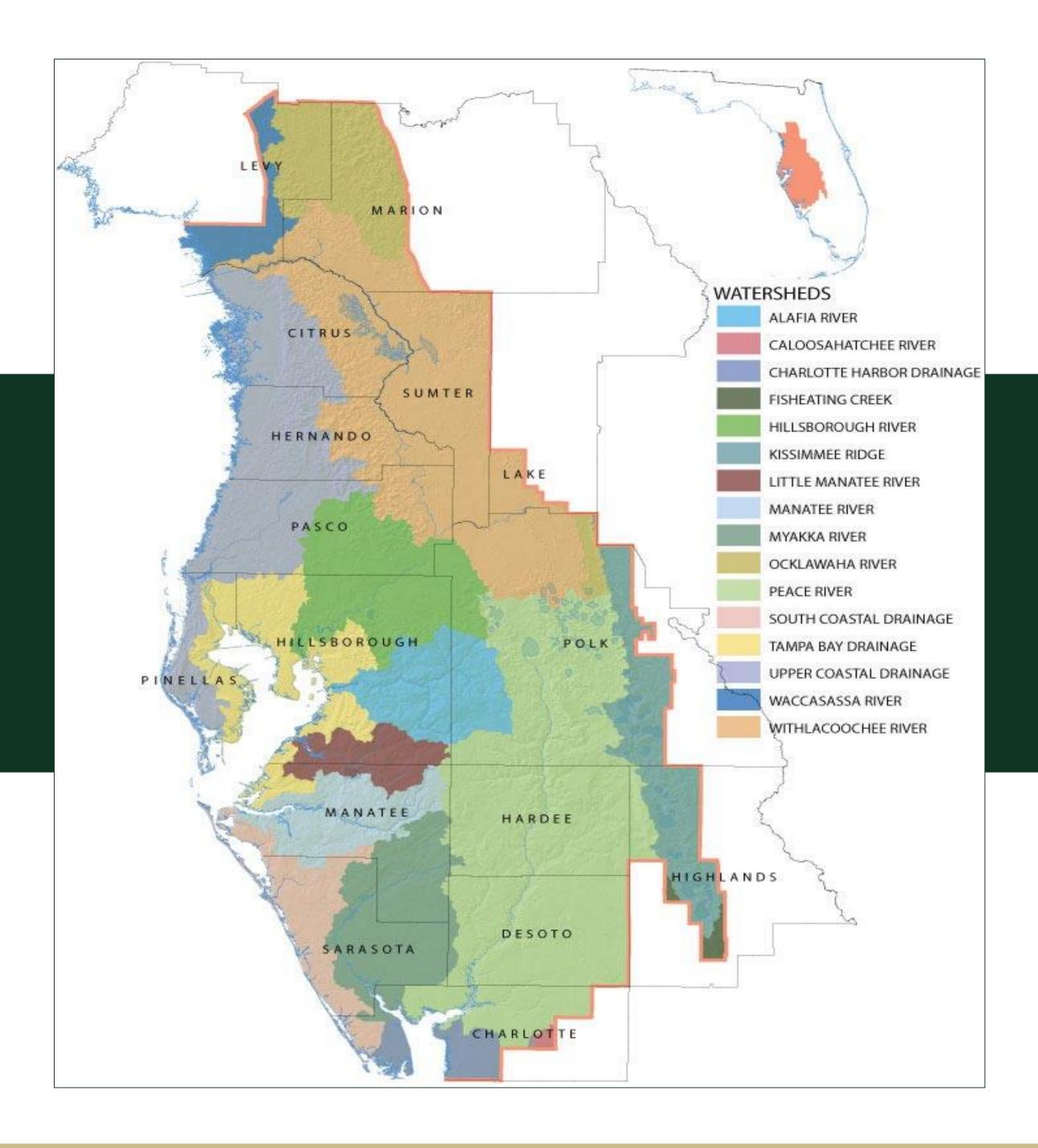


SJRWMD Mitigation Banking Basins 10 5 0 10 Miles 1 = 2000000

The St. Johns River Water
Management District prepares
and uses this Information for
its own purposes and this
information may not be
suitable for other purposes. This
information is provided as is.
Further documentation of this
data can be obtained by contacting:
St. Johns River Water Management
District, Geographic Information
Systems Program Management,
P.O.Box 1429, 4049 Reid Street
Palatka, Florida 32178-1429
Tel: (386) 329-4176.

SJRWMD Basin Map (23)



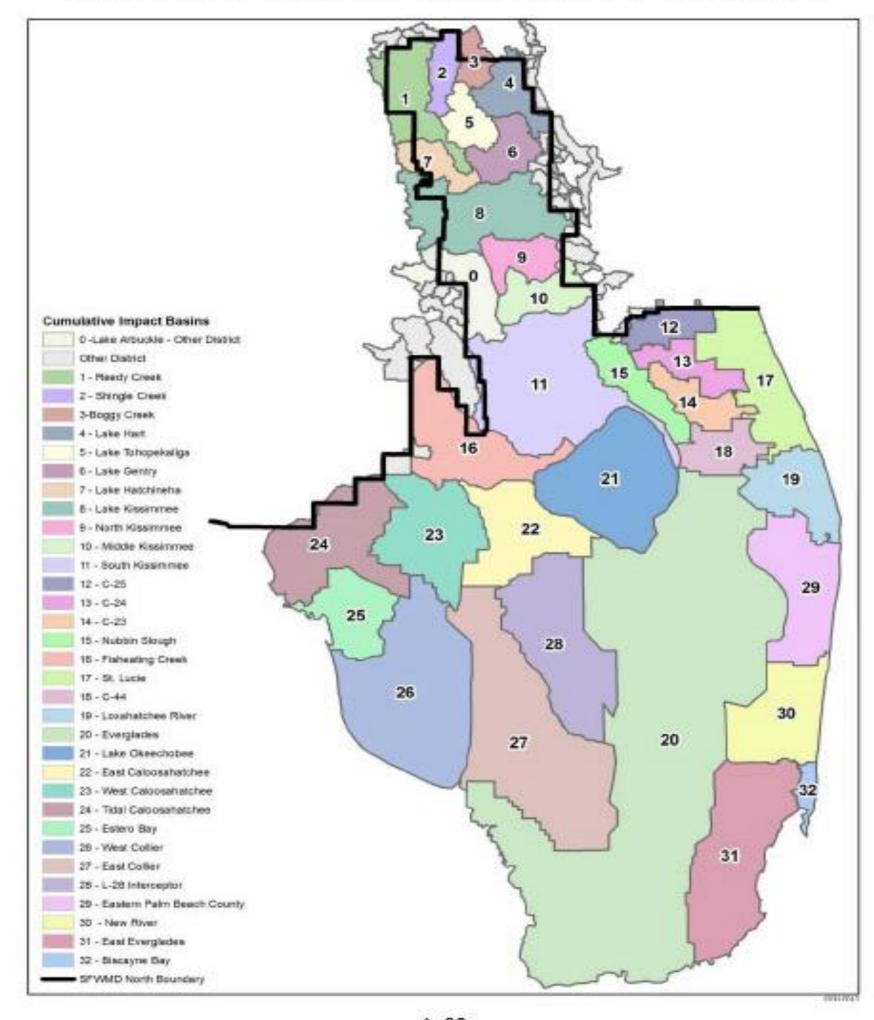


Swfwmd basin map (16)



ENVIRONMENTAL RESOURCE PERMIT APPLICANT'S HANDBOOK VOLUME II Effective: October 1, 2013

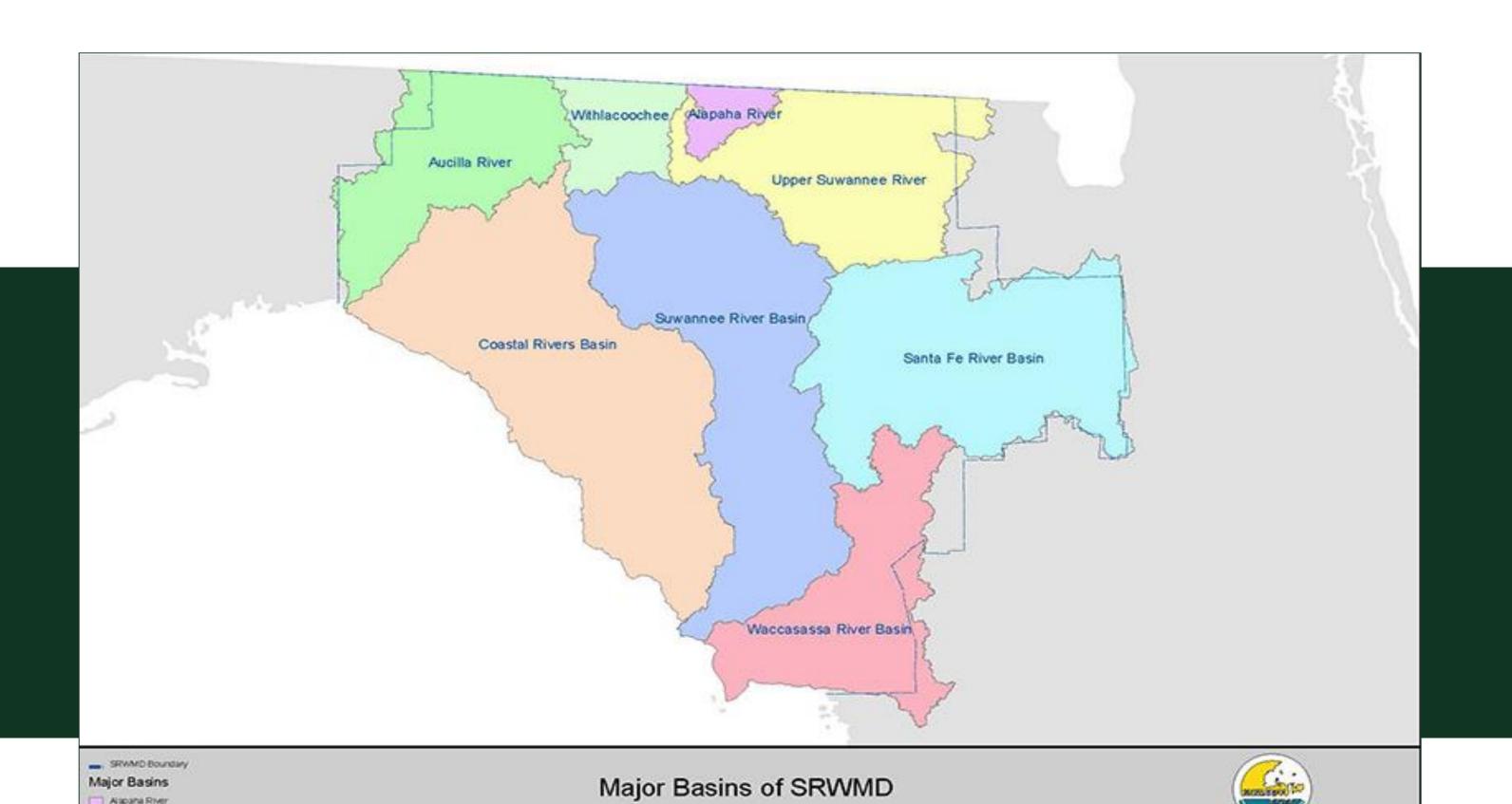
APPENDIX D: SFWMD Basins
for Cumulative Impact Assessments & Mitigation Bank Service Areas



A-20

SFWMD Basin Map (32)





Note: This map was created by the Suwannee River Water Management District (SRVMD) to be used for planning purposes only SRVMD shall not be held liable for any

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Aucita River
Coastal Rivers Basin

Santa Fe River Basin Suwannee River Basin

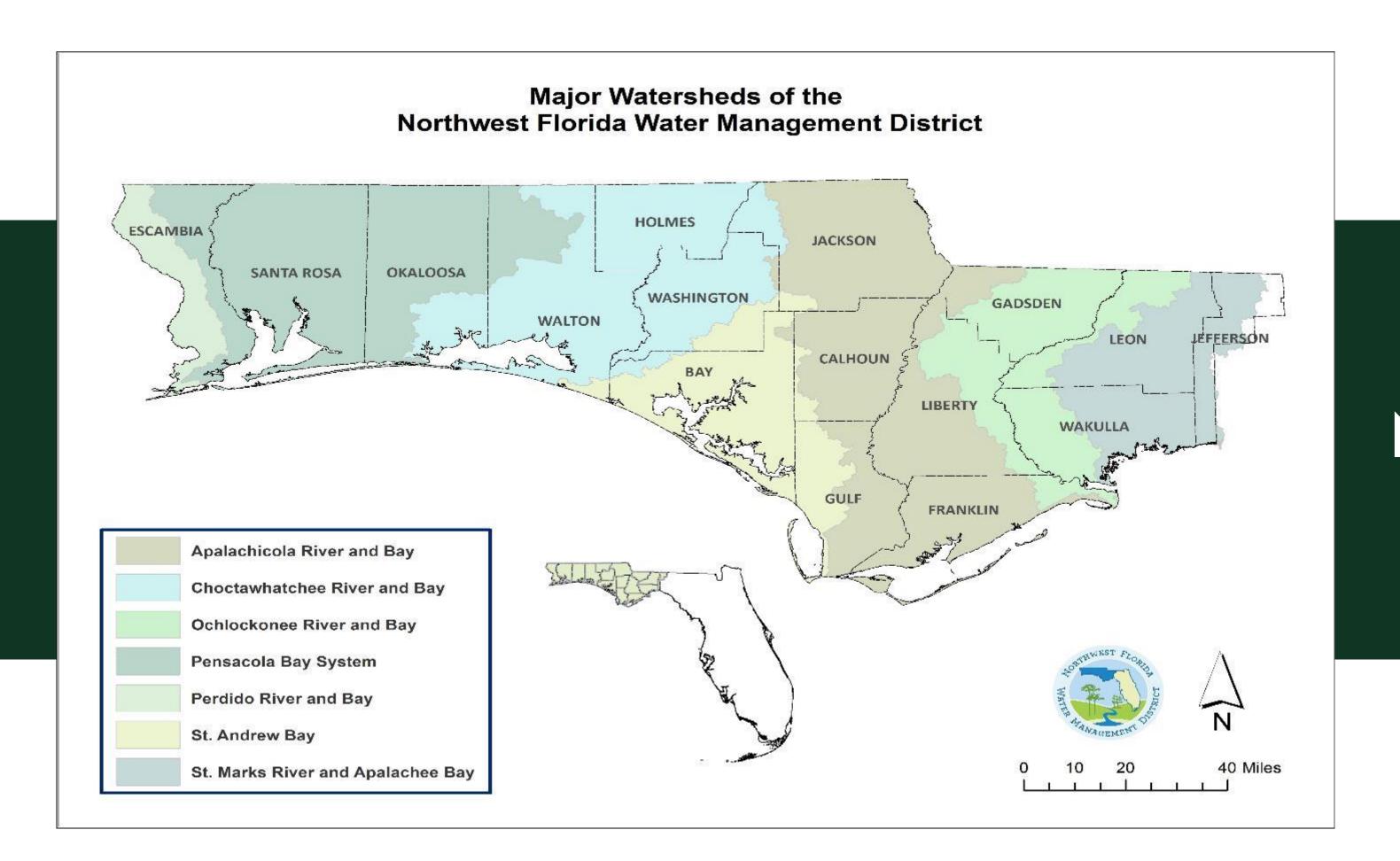
Upper Suwannee River

Waccasassa River Basin

Withiacoochee

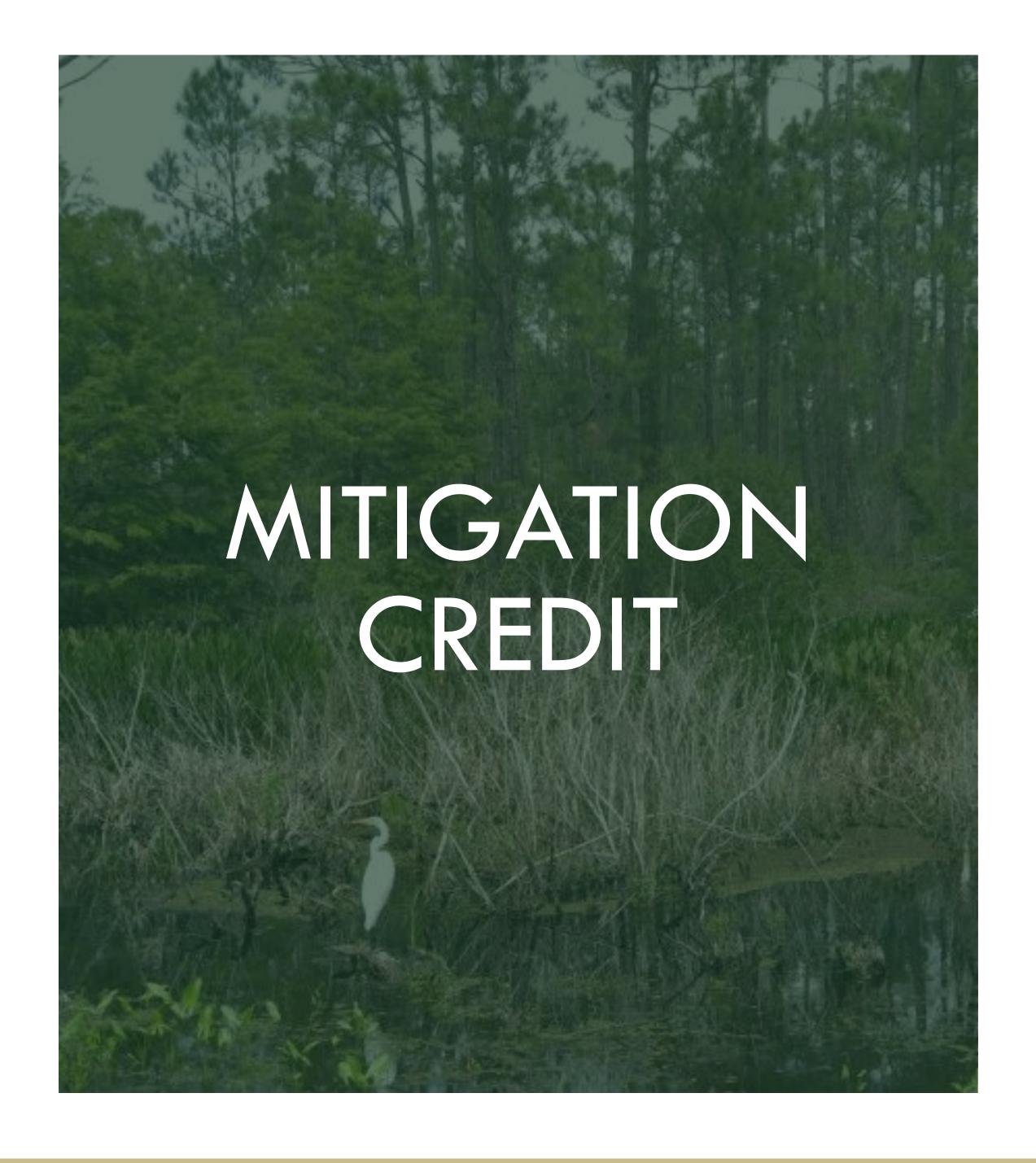
Srwmd basin map (8)





Nwfwmd basin map (7)





- "Mitigation credit" is a standard unit of measure which represents the increase in ecological value resulting from restoration, enhancement, preservation, or creation activities.
- Assessment and Scoring for the three categories:
 Location and Landscape Support, Water
 Environment, and Community Structure.





- regulatory agencies utilize the Uniform Mitigation Assessment Methodology (UMAM) since 2005 to determine the functional loss of the wetland impact.
- This method involves scoring several variables (such as: location, landscape and quality of the wetland) to come up with a multiplier between 0.0 and 1.0. When the UMAM score of the impact area is multiplied by the acreage of the impact site, the number of the UMAM credits required to offset the impact is determined.



Example of credit release schedule

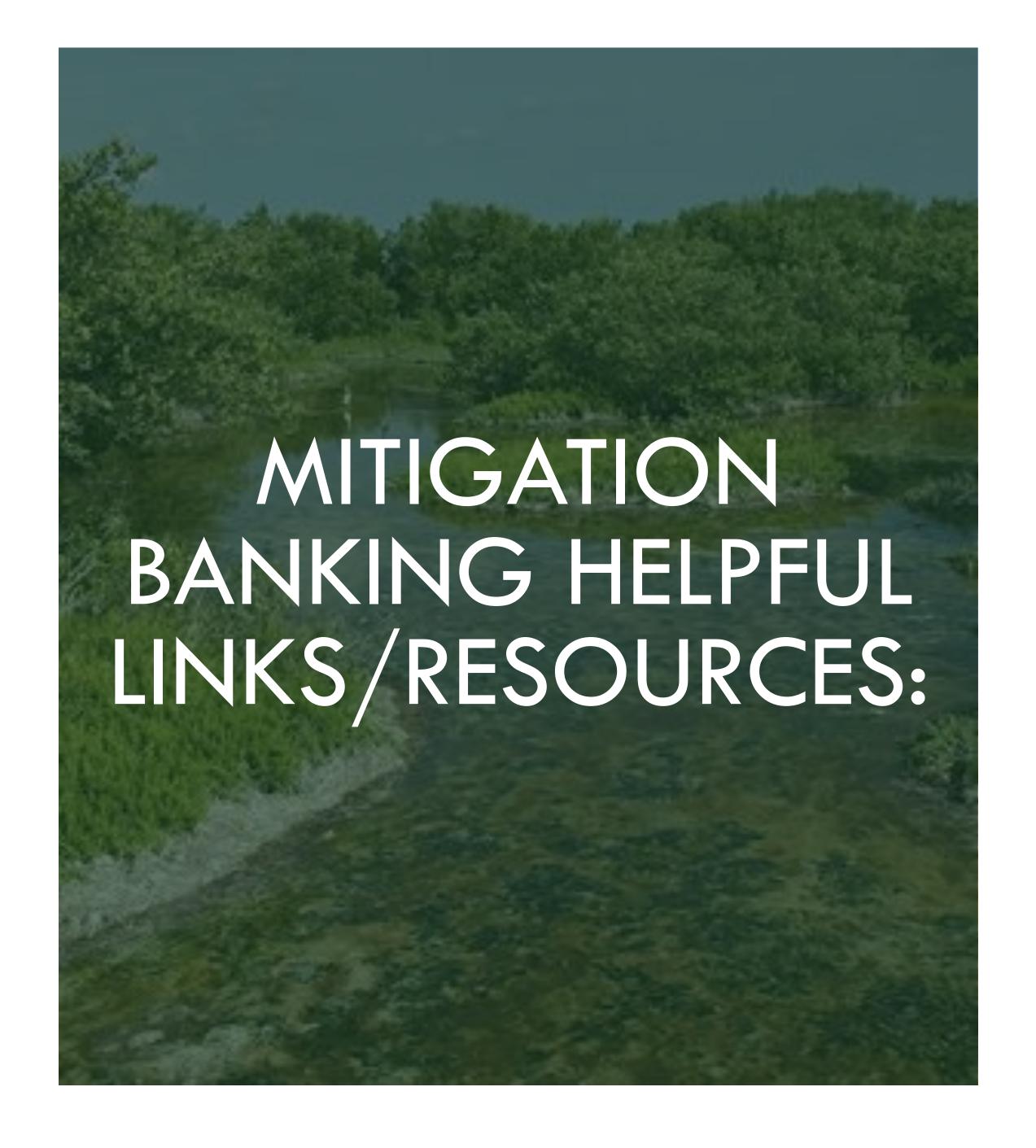
Credit Release Activity	% Release	Est. Timetable	Forested Credits
File Intesive CE for entire bank site and Provide Financial Assurance	15%	1 month post issuance	8.4
Construction Credit Release, Install Low Water Crossings/Control Structures and Earthen Ditch Blocks	25%	2 months post issuance	14
Implement invasive exotic/nuisance vegetation eradication	5%	2 months post issuance	2.8
Complete Planting Plan	20%	6 months post issuance	11.2
Implement Prescribed Fire Management Program	5%	5 years post issuance	2.8
Interim Success Attainment, Annual monitoring indicating trending to success	5% per year for 4 years	1-5 years post issuance	11.2
Full Success Attainment	Remaining 10%	5-6 years after enhancement	6.2
TOTAL	100%		56.6





- The Trump administration plans to separately write a new regulation to replace the water rule with a more industry-friendly definition of federal power over waterways.
- "We are taking significant action to return power to the states and provide regulatory certainty to our nation's farmers and businesses," EPA Administrator Scott Pruitt.





- FEDERALLY PERMITTED AND PENDING FLORIDA MITIGATION BANKS (STATUS OF PERMITS, AVAILABLE CREDITS AND LEDGER):
- HTTPS://RIBITS.USACE.ARMY.MIL/RIBITS APEX/F?P=107:158:670984369484::NO:RP
 CLICK GO ON TO WEBPAGE)
- THE 5 WMD MITIGATION BANKS:
- SJRWMD MITIGATION BANKS:
- HTTP://WEBAPUB.SJRWMD.COM/AGWS10/MT/
- SWFWMD MITIGATION BANKS:
- HTTP://WWW.SWFWMD.STATE.FL.US/FILES/DATABASE/SITE FILE SETS/2575/ERP MITIGATION BANK WETLAND CREDIT LEDGERS.PDF
- SFWMD MITIGATION BANKS: (NEED TO SEARCH BY MITIGATION BANK PERMIT NUMBER):
- HTTP://MY.SFWMD.GOV/EPERMITTING/POPULATELOVS.DO?FLAG=1
- NWFWMD MITIGATION BANKS:
- HTTPS://WWW.NWFWMDWETLANDS.COM/UMBRELLA-PLAN/WATERSHEDS
- SRWMD MITIGATION BANKS: NEED TO SEARCH BY MITIGATION BANK PERMIT NUMBER:
- HTTPS://PERMITTING.SJRWMD.COM/SREPERMITTING/JSP/SEARCH.DO?THEACTION = PERMITNUMSEARCH





VICTORIA@MITIGATIONBANKINGINC.COM

OFFICE: 407-960-5787

CELL: 407-808-2222

WWW.MITIGATIONBANKINGINC.COM