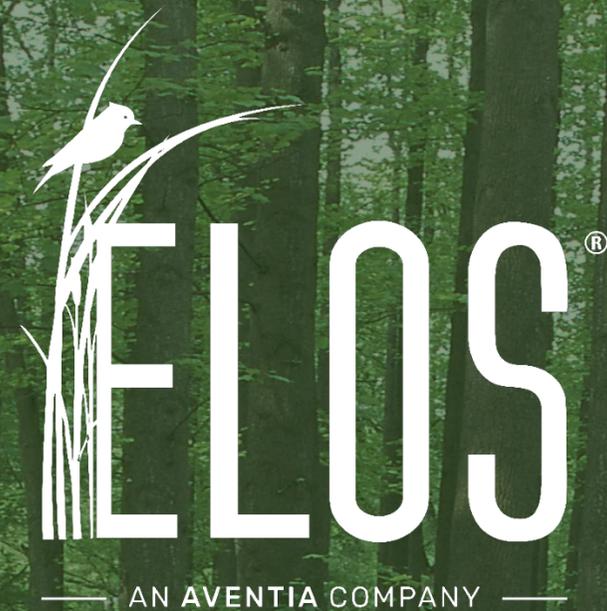


Compensatory Mitigation Concepts



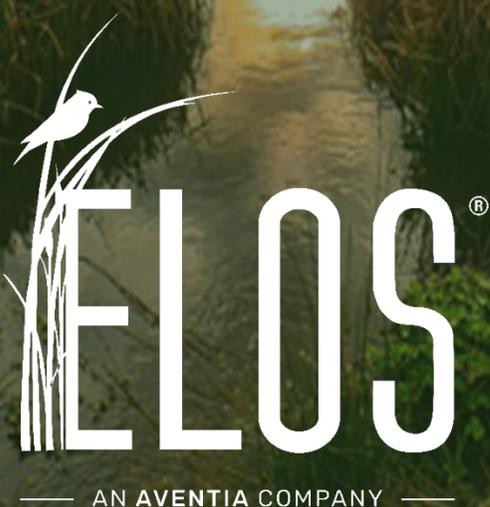
FEBRUARY 24, 2026

WHERE NATURAL ENVIRONMENTS & HUMAN INTERESTS INTERSECT

OUR COMPANY

Founded in 2006, ELOS Environmental, LLC is a professional consulting company offering a diverse range of services designed to satisfy the needs of our clients. We are an Aventia company, along with BEM Systems, St. Germain, Habitat Management, Inc., and KC Harvey Environmental.

ELOS has become one of the premier professional consulting firms in the state of Louisiana. Our familiarity with federal, state, and local agencies and processes, in combination with expertise in relevant scientific technologies results in streamlined services for our clients, saving them time and money.



OUR PRESENTER



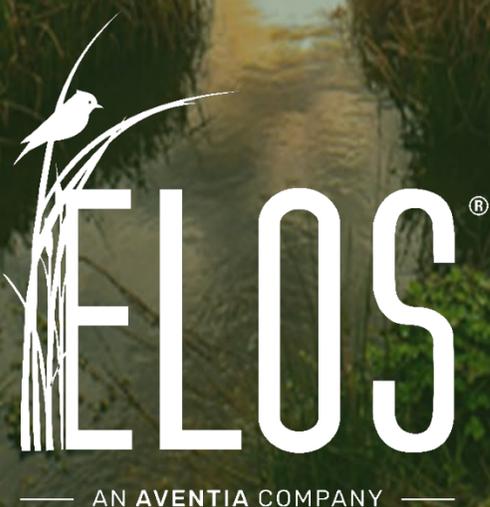
Savannah Watkins

Savannah Watkins is an Environmental Scientist and Project Manager specializing in mitigation banking, NEPA compliance, regulatory permitting, and disaster recovery. She holds a Bachelor of Science in Integrative Biology and a Masters in Business Administration. Since 2021, she has worked closely with private and public sector clients, regulatory agencies, and landowners to facilitate the planning, construction, management, and transactions associated with compensatory mitigation banking.

ELOS AND MITIGATION

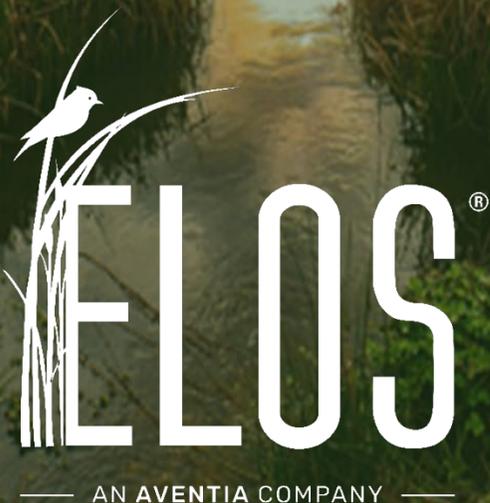
For over 18 years, ELOS has assisted landowners in the planning, implementation, construction, and management of mitigation banks and projects. At present, ELOS manages five (5) commercial mitigation banks totaling approximately 6,300 acres and provides the following services:

- GIS Mapping Services
- Wetland Delineations
- Restoration Implementation
- Monitoring and Reporting
- Agency Coordination
- Silviculture Management
- Hydrology Manipulation
- Invasive Species Control
- Planting Installations
- Herbicide Applications
- Credit Sale Management



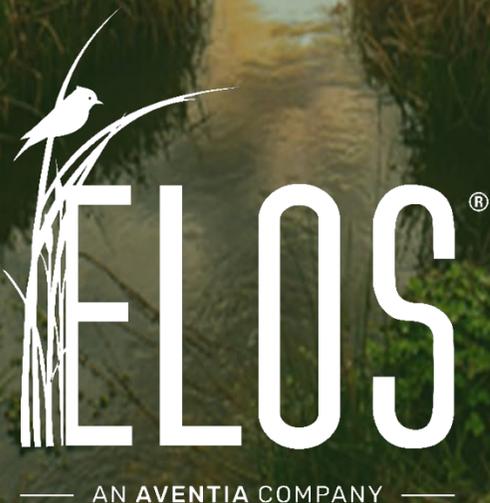
UNDERSTANDING THE BASICS

- What is “mitigation”?
 - Mitigation in wetland regulatory context, is the process by which impacts to aquatic resources (wetlands) are “mitigated” by the construction or enhancements of similar wetlands within or near the same watershed.
 - Compensatory Mitigation means the restoration (re-establishment or rehabilitation), establishment (creation), enhancement, and/or in certain circumstances preservation of aquatic resources for the purposes of offsetting unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved (e.g. 33 CFR § 332.3).
 - Impacts to wetlands caused by construction or development of any kind must be accompanied by the creation, rehabilitation, or enhancement of wetlands elsewhere within the basin. The mechanism by which this is accomplished is the purchase of credits provided by private wetland mitigation banks in order to support the impacts proposed in an application for a Section 10/404 permit.



AVOIDANCE AND MINIMIZATION

- Is “mitigation” necessary?
 - Avoidance of jurisdictional impacts during the design phase of the proposed project can reduce or eliminate the need for compensatory mitigation.
 - Aquatic resource impacts may be avoided by revisions to the project’s methods, features, and footprint resulting in the least impactful alternative that still meets the goals of the project.
 - Compensatory mitigation is the *last resort after* all practicable alternatives of avoidance and minimization measures have been exhausted during the design phase of the project.



MITIGATION OPTION HIERARCHY

After all practicable alternatives to avoid and minimize impacts have been exhausted during the design phase of the project, the following mitigation options are available to the extent that a more favorable options is not.

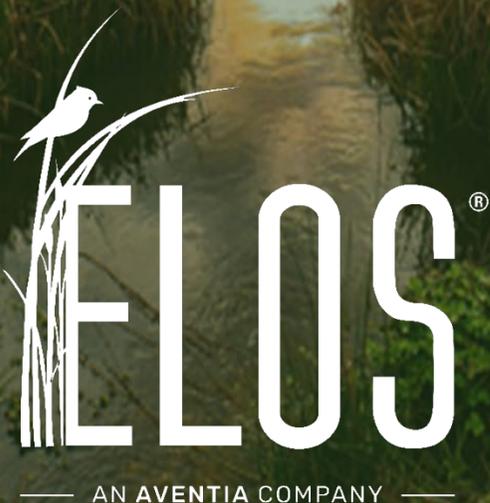
Per 33 CFR § 332.3:

1. Commercial Mitigation Bank Credits
2. In-Lieu Fee Program Credits
3. Permittee Responsible Mitigation (Watershed, In-kind)
4. Permittee Responsible Mitigation (Onsite, In-kind)
5. Permittee Responsible (Off-site, Out of Kind)
6. General Watershed Approach Mitigation

The options lower down the list are only deferred to in the event that the aforementioned options are for some reason unavailable to the permittee.

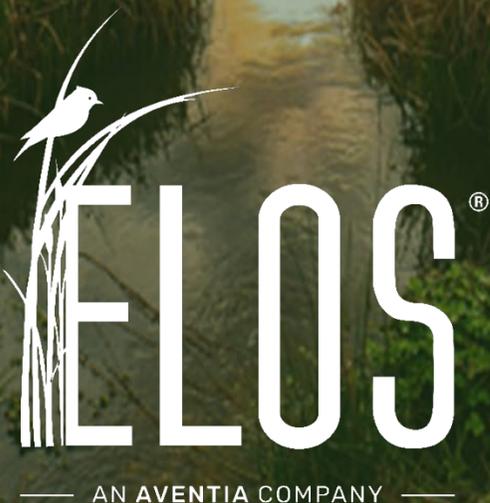
UNDERSTANDING THE BASICS

- A **mitigation bank** means a site, or suite of sites, where resources (e.g., wetlands, streams, riparian areas) are restored, established, enhanced, and/or preserved for the purpose of providing compensatory mitigation for impacts authorized by DA permits. In general, a mitigation bank sells compensatory mitigation credits to permittees whose obligation to provide compensatory mitigation is then transferred to the mitigation bank sponsor. The operation and use of a mitigation bank are governed by a mitigation banking instrument (e.g. 33 CFR § 332.3).
- **Compensatory Mitigation Project** means compensatory mitigation implemented by the permittee as a requirement of a DA permit (i.e., permittee-responsible mitigation), or by a mitigation bank or an in-lieu fee program (e.g. 33 CFR § 332.3).
- **Mitigation Credit** is the unit through which compensatory mitigation is measured and purchased, the “currency” of compensatory mitigation.



UNDERSTANDING THE BASICS

- **How does compensatory mitigation banking work?**
 - A mitigation bank is established by a “**Sponsor**” - landowner, stakeholders, nonprofit organization, or other entity - assuming the responsibility of the restoration activities by entering a formal agreement with a regulatory agency.
 - **Bank Site**: A large area of degraded land that has undergone significant restoration to return the site to its historic hydrologic functions, habitat types, vegetation compositions, and ecological values to be conserved in perpetuity.
 - **IRT**: Inter-Agency Review Team. An interagency group of federal, tribal, state, and/or local regulatory and resource agency representatives that reviews documentation for, and advises the district engineer on, the establishment and management of a mitigation bank or an in-lieu fee program.
 - A mitigation bank sells credits to prospective permittees to compensate for adverse impacts to aquatic resources resulting from the permitted project.



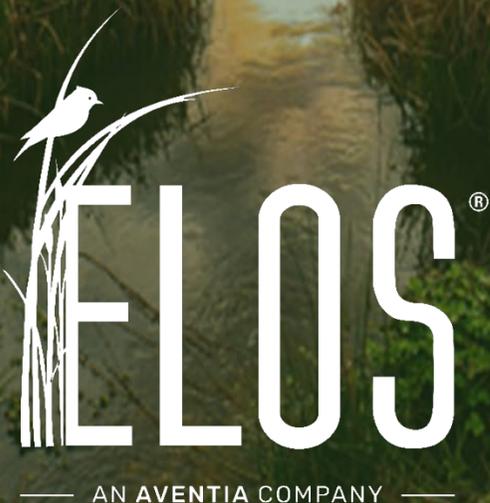
UNDERSTANDING THE BASICS

- **Benefits of Mitigation Banking**
 - Higher Ecological Success: Restoration is performed by ecological experts who ensure that the habitat successfully meets strict performance standards.
 - Elimination of "Temporal Loss": Because banks restore the land *before* credits are sold, there is no time gap where the environment is left without those ecological services
 - Full Transfer of Liability: Once a credit is purchased, the developer is legally absolved of responsibility. The long-term maintenance and success of the land fall entirely on the banker.
 - Permitting Speed and Efficiency: Buying credits can shave months or years off project timelines compared to building and monitoring an on-site restoration.
 - Permanent Protection: Mitigation banks are legally protected by conservation easements and "endowment-style" long-term management funds to ensure they remain protected in perpetuity.

UNDERSTANDING THE BASICS

- **Types of Mitigation Banks**

- Private Mitigation Bank (Single-Use): In this scenario, the developer assumes the role as the Sponsor, creating the bank to satisfy their own projects' mitigation needs occurring in the same watershed basin. A private mitigation bank follows the same rules as any other, however it is pre-supposed that the only client (permittee) purchasing credits is the Sponsor.
 - This is often used by local government entities with large or frequent infrastructure development.
- Mitigation Bank (Commercial-Use): In this scenario, a landowner or corporation establishes a mitigation bank in watersheds where development is often impacting aquatic resources in order to profit from credit sales to permittees.
 - This is the most common mitigation bank model.



UNDERSTANDING THE BASICS

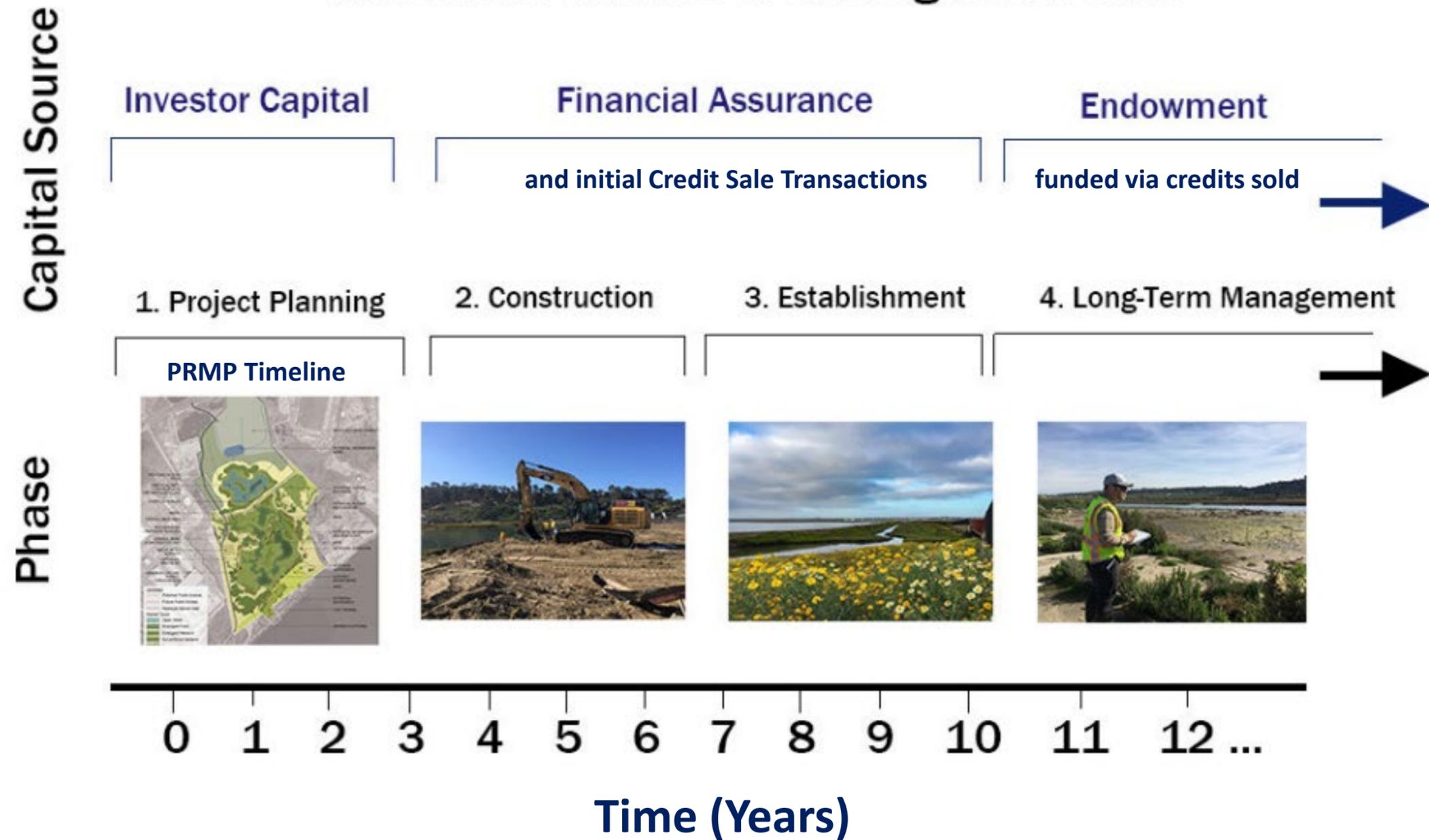
- **Alternatives to Establishing a Mitigation Bank**
 - In-Lieu Fee (ILF) Programs: While not technically "banks," they are a common alternative. A developer pays a fee to a governmental or non-profit natural resources management organization, contributing to an ILF "pool" of money to find and complete a restoration project later.
 - Permittee Responsible Mitigation (PRM): In this scenario, the developer (permittee) directly performs mitigation restoration activities to offset their own unavoidable impacts. In this case, mitigation activity is considered as part of the DA permit application and must be approved by the IRT prior to permit issuance. PRM is the best path forward when:
 - Project is in a remote area without the required commercial credits available.
 - Project impacts a very rare habitat type that a standard wetland bank doesn't cover; regulators will require a custom PRM project.
 - Project is of sufficient size or impacts a significant amount of aquatic resources for which commercial mitigation banks do not have sufficient credit inventory.

PERMITTEE-RESPONSIBLE MITIGATION (PRM)

- An alternative where the person or company receiving the permit (the permittee) retains full legal liability for the construction, success, and long-term monitoring of mitigation site.
- PRM Types:
 - On-site/In-kind: Restoring the same type of habitat (e.g., a marsh) directly adjacent to where the damage occurred.
 - Off-site/In-kind: Restoring the same type of habitat, but in a different location (usually within the same watershed) because the project site doesn't have enough room.
 - Off-site/Out-of-kind: Restoring a different type of habitat in a different location. This is rare and usually only allowed if the new habitat is of much higher conservation priority.

MITIGATION BANK TIMELINE

Illustrative Phases of a Mitigation Bank



MITIGATION BANK TIMELINE

Fundamental Steps of Mitigation Bank Development

1. Project Planning and Pre-Application
 - Site Selection
 - Market Analysis
2. Prospectus
 - Initial Scoping Document for mitigation bank or project.
3. Mitigation Banking Instrument (MBI)
 - Guiding document and agreement that governs *all aspects* of mitigation bank set up, operations, and ongoing management.
4. Establishment & Long-Term Management
 - All activities required to establish and maintain the bank in perpetuity.

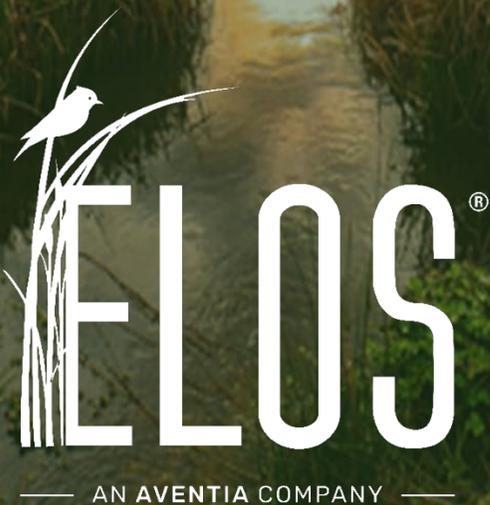
SETTING UP A MITIGATION BANK

1. Planning and Pre-Application

- Site Selection: You need land with "restoration potential" or "lift" (e.g., a former wetland that was drained for farming or used for silviculture). Property must present the potential for significant ecological improvement.
- Market Analysis: Are there enough development projects (infrastructure, housing, utilities, energy) in the area to financially support the effort (i.e. buy your credits)?

2. The Prospectus

- Contents: It must include the bank's objectives, service area (where you can sell credits), ownership arrangements, and technical feasibility.
- Public Notice: The Corps issues a public notice to neighbors and stakeholders for a 30-day comment period.
- Prospectus Approval: After reviewing the Prospectus and public comments, the Corps issue a formal Prospectus Approval letter stating whether the project has the potential to proceed.



SETTING UP A MITIGATION BANK

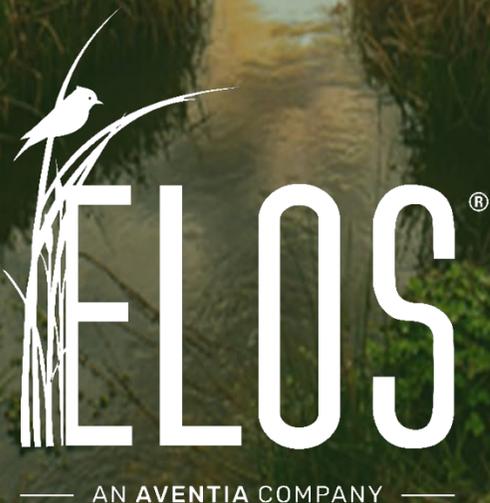
3. Mitigation Banking Instrument (MBI)

- The Mitigation Plan: Detailed engineering and biological plans for how you will restore the land. Examples: culvert removals, controlled burns, herbicide applications, tree installations, etc.
- Performance Standards: Specific "milestones" you must reach (e.g., "Year 3: 80% survival of planted oaks").
- Credit Release Schedule: You don't get all your credits at once. You might get 15% when the MBI is signed, 25% after construction, and the rest as you meet performance milestones.
- Financial Assurances: You must post a Performance Bond or Letter of Credit. This ensures that if you walk away, the government has the money to finish the restoration.

SETTING UP A MITIGATION BANK

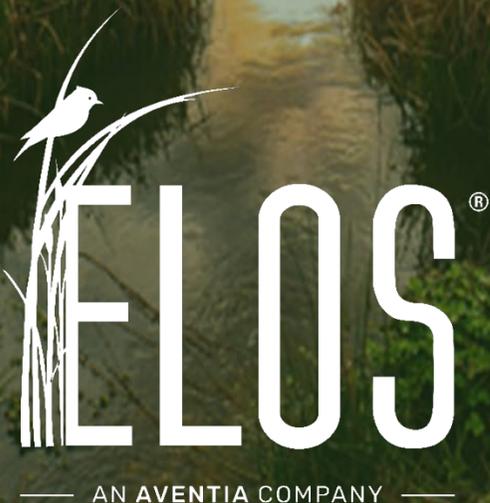
4. Establishment and Long-Term Management

- Construction: You perform the physical restoration (dirt work, planting, etc.).
- Credit Sales: As you hit milestones, credits are "released" into your account in RIBITS (the federal tracking database), and you can sell them to permittees.
- Perpetual Protection: You must record a Conservation Easement on the property, protecting it from development forever.
- The Endowment: A portion of your credit sales must go into a "long-term management fund" to pay for things like invasive species control in perpetuity.



SETUP COSTS & CREDIT PRICING

- Setup Cost Estimates:
 - Prospectus: One Time Expense ~\$200-400K
 - Administration, MBI & Establishment Docs, IRT Review/Approval
- Post-Establishment Cost Estimates:
 - Construction and Restoration Activities: Costs vary considerably depending on bank size (total acres) and restoration activities required. This could range anywhere from ~\$250K into the millions.
 - Ongoing Admin/Management/Monitoring (Years 10-20+): Costs vary according to the complexity of the bank. Similar range as above.
- Credit Sale Pricing (Most Common in Southeast Louisiana)
 - Bottomland Hardwood Credits (BLH) range: ~\$30k - \$50k/acre
 - Pine Flatwoods Savanna Credits (PFS) range: ~\$15k - \$25k/acre





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Thank You!

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