




*Uncompromising quality
and environmental awareness*



Consulting
Ecologists

PASSARELLA
& ASSOCIATES INC



Our Reputation for environmental expertise is based on our skillful application of science and sound ecological principles as well as a thorough understanding of permitting and agency requirements and regulations.

Our Professional Approach ensures that each project meets client expectations while finding a sustainable balance with the natural environment. We use the latest technology and resources to ensure the accuracy and quality of our data – and your project.

Our Clientele is wide-ranging and includes landowners, civil engineers, land surveyors, planners, land-use attorneys, realtors, residential and commercial developers, agricultural operations, as well as local, state, and federal agencies. Clients depend on our knowledge, expertise, and our remarkable working relationships to navigate environmental regulations, no matter the complexity of the project.



Achieving a sustainable balance

Founded in 1996, Passarella & Associates is a full-service ecological and environmental consulting firm that has built its reputation on the skillful application of science and sound ecological principles.

Established to assist clients in achieving a sustainable balance between development and our unique environmental resources, Passarella & Associates is backed by a staff of professional ecologists and environmental scientists with extensive knowledge of navigating environmental regulations on regional, state, and federal levels. We are exceptionally qualified to guide a project – no matter how large or small – from inception to completion in a thorough and timely manner.

Our experienced staff works closely with each client, as a team, to ensure that the design, permitting and implementation of every project is of the highest level of quality, on time and at a reasonable cost, always while complementing the natural environment.

Passarella & Associates utilizes the latest technology and resources ensuring the accuracy and quality of data. The dedicated team of ecologists, biologists, environmental consultants, GIS analysts, and support staff members have developed a thorough understanding of permitting, agency requirements and regulations, as well as an appreciation of the intricacies and nuances of our environment. Passarella & Associates expertly creates the perfect balance of progress and nature.



Scope of services

The firm's scope of professional services is all-inclusive, allowing our clients to tailor services to meet their project needs. Many clients choose to take full advantage of our expertise and extensive field work experience, enlisting us to oversee all environmental aspects of a project – guiding it through initial planning, permit submittals, agency negotiations, permit issuance, and construction implementation, as well as permit compliance and follow-up monitoring.

» WETLAND JURISDICTIONAL DETERMINATIONS

Wetland mapping, flagging, and assessments

Wetland jurisdictional determinations/delineations determine the presence and physical limits of wetlands and surface waters. Our ecologists routinely conduct wetland mapping and flagging on sites utilizing criteria defined by federal and state rules. Wetland assessments are necessary when a project results in unavoidable wetland impacts. Our staff is trained to conduct these assessments using methodologies approved by the permitting agencies.

» WETLAND PERMITTING

Federal, state, and local government permitting

Our team of environmental professionals is experienced in providing the expertise needed to guide a project through the federal and state permitting processes and obtain the necessary entitlements for a project. We are knowledgeable of local government wetland ordinances that may apply to a project. We have the knowledge, experience, and excellent working relationships that are required to expedite the permitting process through the various federal, state, and local government agencies.

» WETLAND MITIGATION DESIGN AND MONITORING

Wetland mitigation design, mitigation construction coordination, mitigation assessments, and mitigation monitoring

The design of a wetland mitigation project is catered to individual project needs. We have demonstrated our extensive experience in wetland mitigation design through the successful completion of a variety of projects with different goals and objectives while finding a balance with the natural environment. We measure the ecological success of mitigation areas through wetland mitigation monitoring and performance standards established in the permitting process.

» WETLAND MITIGATION BANKS

We have experience in designing, permitting, managing, and monitoring successful wetland mitigation banks. Aspects of wetland mitigation bank design we can assist with include site searches, mitigation planning, potential credit generation under different scenarios, and preliminary restoration, management, and monitoring cost estimates. We have a Qualified Mitigation Supervisor on staff to oversee all facets of mitigation bank site implementation, management, and monitoring, as well as corrective actions, if necessary.

» **PROTECTED SPECIES ASSESSMENTS**

Habitat mapping, protected species surveying, and habitat analysis

Our team of trained and experienced ecologists regularly perform habitat mapping and conduct protected species surveys on project sites as part of preliminary site assessments and permitting requirements. Protected species assessments/surveys are often required to determine the presence or absence of plant and animal species protected by federal, state, and local laws. Our ecologists are highly experienced in utilizing habitat analysis to determine the amount of mitigation a development project may be required to provide as compensation for impacts to protected species, or the amount of habitat credit that could be generated by the land if proposed as a habitat conservation bank.

» **PROTECTED SPECIES PERMITTING**

Federally threatened and endangered species permitting, state protected species permitting, and local government protected species ordinances

The protection of plant and animal species by federal, state, and local regulatory agencies involves specific and complex laws that govern the protection and management of these species. Our firm stays up-to-date on the latest regulations regarding protected species, their habitats, and the associated permitting requirements.

» **PROTECTED SPECIES RELOCATIONS AND HABITAT MANAGEMENT**

Protected species monitoring, relocations, and habitat management plans

Relocation of protected species, habitat management plans, and/or monitoring of protected species on a project site may be required by the permitting agencies if it is determined that a project has the potential to affect one or more threatened or endangered species. The relocation of protected species involves the determination of a suitable relocation site or an appropriate mitigation bank. Our team can assist in planning for on-site preservation, as well as preparation of habitat management plans that may be needed.

» **HABITAT CONSERVATION BANKS**

Habitat conservation banks are permanently protected lands with high natural resource value. These lands are conserved and permanently managed for species that are endangered, threatened, or are otherwise species-at-risk. Conservation banks function to offset adverse impacts to these species that occurred elsewhere, sometimes referred to as off-site mitigation. Our firm assisted in permitting the first conservation bank in the State of Florida for the Florida panther. We continuously work with land owners and mitigation bank managers to identify potential habitat conservation projects throughout the Southeast.



The logo for Passarella & Associates GIS is displayed against a background image of a sunset over a body of water with a wooden pier on the left. The text 'PASSARELLA' is in a large, green, serif font. Below it, '& ASSOCIATES' is in a smaller, green, serif font, followed by 'INC' in a small, green, sans-serif font. To the right of the text is a green circular icon containing a white globe with latitude and longitude lines. Below the icon, the letters 'GIS' are written in a large, green, serif font.

PASSARELLA & ASSOCIATES^{INC} GIS

» GEOGRAPHIC INFORMATION SYSTEMS (GIS)

GIS is a computer-based method that allows the collection, modeling, analysis, and displaying of geographic data. It is a perfect combination of database management with the capabilities of a mapping system. Many different types of data can be integrated into GIS and represented as a spatial layer. When these layers are drawn on top of one another, undetected spatial trends and relationships emerge. This allows us to gain insight about relevant characteristics of a location.

GIS is being used in urban planning and management for zoning, economic development, and land acquisition; by businesses for demographic analysis, market analysis, and site selections; in real estate to analyze neighborhood land prices, traffic analyses, aerial photography, and to see the location of schools, retail businesses, cultural attractions, or other resources in relation to the location of potential home and/or commercial sales; by developers with location or subject-specific maps to help with marketing to the public or presentations to government and/or regulatory agencies; and by CDDs, HOAs, and/or property management companies for community asset management and creating and maintaining data files. At Passarella & Associates, we use GIS in nearly every service we provide.

Using a set of integrated geoprocessing tools, wizards, and scripts, our highly-skilled GIS analysts can perform spatial analysis to understand patterns and relationships among locations and features with geographic data. Some of these capabilities include map production (linking a database to a map), calculations of areas (distances, routes, and lengths), integration of aeriels and LiDAR data, and performing spatial queries (identifying single-family homes within flood zones).

Geospatial Analysis

Geospatial analysis is the process of analyzing data in relation to its location. Our analysts are trained to interpret geographic patterns and relationships among locations and features with spatial data.

Examples of geospatial services include:

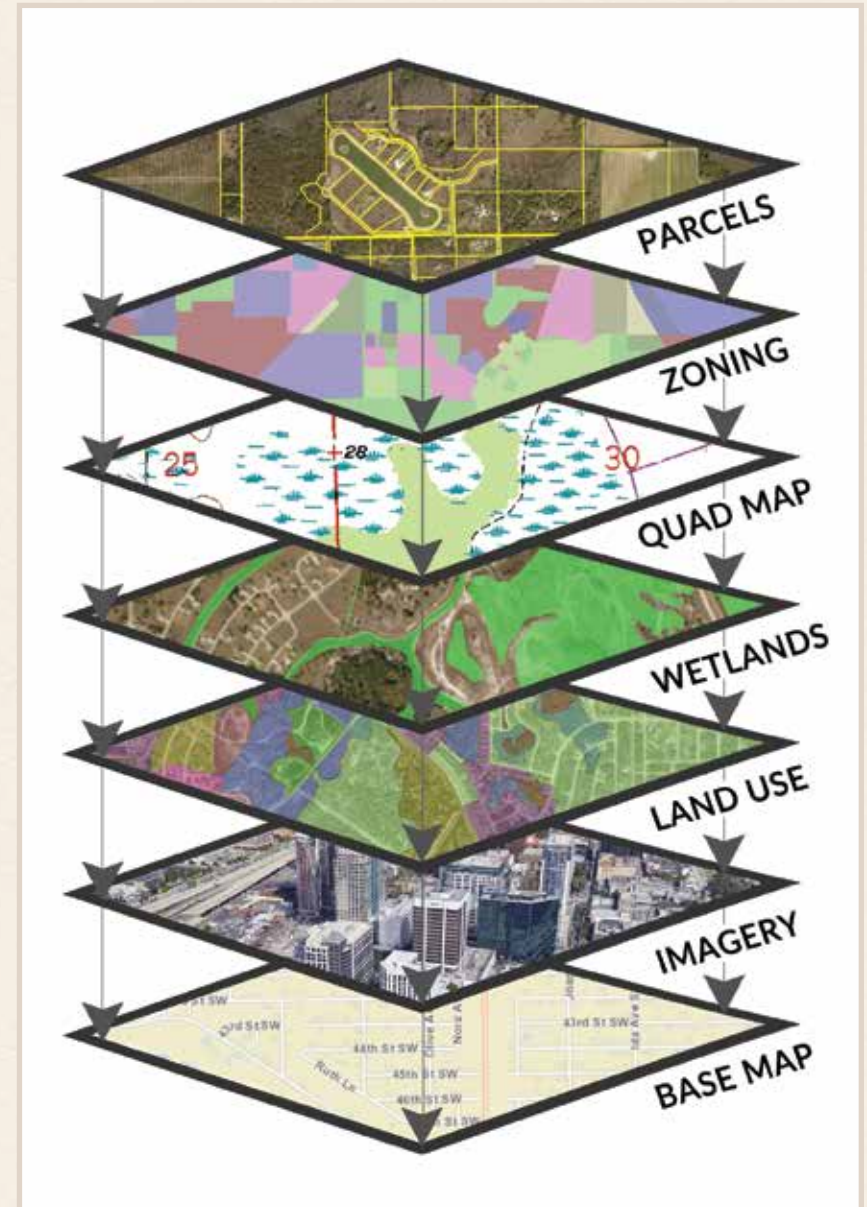
- Data Layer Analysis (parcels, land cover, zoning, preserves, community assets, etc.)
- Database Design & Management
- Wetland Mapping
- GIS Data Modeling & Python Scripting
- Address & Geocoding

Custom Mapping

Our team of analysts have years of experience creating maps for display or presentation. This includes aerial photography maps, subject-specific maps, and location maps. We can create a wide-variety of custom sized maps featuring your exact data needs.

GIS Data Collection and Production

Every analysis requires data. Our analysts have created and compiled data for many organizations both in the public and private sectors. We collect spatial data utilizing GPS devices and from aerial-photo interpretation; examples of which include tree inventories, municipal infrastructure features (roads, street signs, light poles, utilities), and business locations.





Database Design and Conversion

Data conversion is a very important and technical process. Our GIS team will work with you to develop a geodatabase design that will suit your organization's specific needs. Our process can convert data from hard copy paper maps, AutoCAD drawings, property records, aerial photographs, GPS data, and more.

Online GIS Web Applications

Using ESRI technologies, our staff can create an online GIS web map that meets your business's needs. Web maps can be designed for client-only access or for public viewing. This gives your users 24/7 access to your maps and data online. Web map solutions are user friendly, mobile ready, include map tools, and can be customized specifically to your organization.





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