

| Video | Audio  |
|-------|--|
|       | <p>&gt;&gt;MALE NARRATOR: Georgia is known for its most famous swamp, the Okefenokee, but on this episode, we'll find out what is special about Georgia's lesser-known swamps, Chickasawhatchee Swamp near Albany, and Phinizy Swamp in Augusta. Coming up next!</p>   |
|       | <p>&gt;&gt;Narrator: Perhaps no other ecosystem has inspired more fascination and fear than the black water swamp. Swamps are essentially wetlands with trees, and have long been considered economically valueless. For years their nutrient- rich waters were drained to make room for agriculture and other development. But the crucial ecological role swamps play is now being recognized.</p> <p>Georgia is home to one of the largest and most well-known blackwater swamps in the country – the 544 million acre Okefenokee swamp. But the Okefenokee isn't the only swamp in Georgia. One of the most important wetland areas is Chickasawhatchee Swamp, much of which was recently purchased by the state of Georgia.</p> |
|       | <p>&gt;&gt;Kile:<br/>         Chickasawhatchee swamp is in Southwest Georgia immediately south of Albany, about 15 miles. And just south of the airport about 10 miles or so. It's a beautiful swamp that originally encompassed about 32,000 acres and we have been able to purchase about 20,000 of that original 32,000 acres</p>   |
|       | <p>When the state decided to buy it, we looked at this area and noticed that over 50 percent of it was still in tact...that 50 percent is the wetlands in the area and so when it was purchased we knew that we had one of the most magnificent swamps anywhere in the country. When you look at continuous wetlands it's second only to the Okefenokee.</p>   |
|       | <p>&gt;&gt;Narrator: Also known as the Swamp of Toa, the black waters of Chickasawhatchee have been described by explorers from Hernando Desoto to William Bartram. Chickasawhatchee has been used by humans for centuries and this use has had a serious impact on the habitat.</p>   |
|       | <p>&gt;&gt;Klaus:<br/>         Humans have been in the Chickasawhatchee for a long, long time. This was really one of the last strongholds for the Creek Nation. It wasn't really until about 1837 that the Creeks were driven out of Chickasawhatchee by a militia. So they obviously had an influence on the land that was really unknown.</p>   |
|       | <p>&gt;&gt;Narrator: In the 19<sup>th</sup> century, Chickasawhatchee was divided up and developed for agriculture. Areas once covered with centuries-old hardwoods and pine trees were replaced with cotton fields. Agricultural use continued through the 1950's, when the land was purchased by the St. Joe Paper Company to be used for timber. The cotton fields were soon replaced by rows of planted pine trees.</p>  |

|  |  |
|--|--|
|  | <p>&gt;&gt;Kile: St. Joe for years and years was a relatively private company. They didn't like a lot of government involvement, but they were willing to lease this area to the state for public hunting. Now, at the time they leased it they did not like a lot of public access on their land because they had a lot of timber work going, so they were very restrictive in what they allowed people to do even though they did, in fact, lease it to the state.</p>   |
|  | <p><b>&gt;&gt;Narrator: Chickasawhatchee is now open to the public for hunting and fishing, and the Wildlife management Area has a lot to offer outdoor sportsmen</b></p>  |
|  | <p>01:08:14:04 – tape 11260<br/>Chickasawhatchee is rich in the abundance of game animals. White tailed deer for instance, we have an excellent white tailed deer population in here. We also have wild turkeys. It's outstanding turkey hunting in here</p>   |
|  | <p>There is fishing. It's more wilderness type fishing. It's not developed. It's not managed. People will have to come down. They'll have to do a little bit of hiking, and depending on the water status that year, if we've had good water, they'll be able to find some of these little holes and they can find chain pickerel in these holes. They can find redbreast, channel catfish. There are bass the fish don't get real big, but this is unspoiled. It's unpolluted in here, and so the quality of fish in terms of eating is outstanding</p>   |
|  | <p><b>&gt;&gt;Narrator: Chickasawhatchee is home to an abundance of wildlife, from the hordes of mosquitoes that form the bottom of the wetland food chain all the way up to one of the swamps most infamous inhabitants, the American alligator.</b></p>  |
|  | <p>&gt;&gt;Kile: This area has always had a very high alligator population and I think we enhanced it. Over the years we would get nuisance alligators in people's ponds. We had no place to take those so we actually brought in a lot of wild alligators that were a nuisance in other places and brought them into here. So as people come, and especially if they come in the summertime, they should expect to see a lot of these gators. Now, should they be afraid of these gators and should they avoid the area? No. As long as the public does not go out there and throw food to them. They really, they need to be aware that they're out there. They need to watch their dogs and keep them close by, but in terms of alligators actually attacking people: the chance is extremely slim in this area. The best thing to do is to come in and enjoy the wildlife they're seeing. Recognize that as a large gator that will eat meat if it gets a chance but it's not going to go out of its way. It's generally afraid of people and should do its best to avoid folks.</p> |
|  | <p><b>&gt;&gt;Narrator: Chickasawhatchee is also a great spot for birdwatchers. In fact, it is officially recognized as an important bird area by the National Audubon Society, and it is part of the newly established Southern Rivers Birding Trail.</b></p>   |
|  | <p>&gt;&gt;Klaus:</p>  |

|  |  |
|--|--|
|  | <p>This is a spectacular area for bird diversity. There are many, many birds associated with water that are found here. Everything from wood ducks to at least 4 substantial rookeries in the area. And a rookery is where the wading birds are actually nesting and they nest colonially. In some of these rookeries there may be more than 1000 nesting pairs, and at least 4 of those that we know of in the swamp – the Chickasawhatchee Wildlife Management Area. It’s also an important area for a lot of birds that don’t necessarily nest here, but forage here. Ibis are found throughout the swamp foraging. There are also a host of forest birds found throughout the swamp. This is really a sanctuary for a lot of birds who otherwise wouldn’t be found in this part of Georgia.</p>  |
|  | <p><b>&gt;&gt;Narrator: One of the reasons that such a great diversity of wildlife exists at Chickasawhatchee is the diversity of habitats it encompasses. Half of the area is covered by wetlands, and the other half consists of a dry, upland environment. The upland area is the most affected by man.</b></p>   |
|  | <p>&gt;&gt;Kile: As people drive in they’re going to see the results of this company trying to maximize profits. They’re going to see a lot of planted pines on most all of the upland. At one point in history those were probably pastures that this company had come in and converted over to pine stands. Now, the second most prominent habitat type here is where we’re standing right now, and this is a beautiful aquatic system. It’s a riverine system. There are 3 major creeks that come through here. They flow into the Chickasawhatchee Creek, and this flows into the Ichauway Nachaway, which eventually goes into the Flint River.</p>   |
|  | <p>&gt;&gt;Klaus: I’ve spent a lot of time exploring, trying to find out, find some of the more unique communities, looking for rare species and trying to get a better grasp of what used to be here before so much of it was converted to pine plantation, and this area is one of the few scattered localities that have what the original forest looked like in the upland setting. The bottomlands are very pristine, but the uplands for the most part, have been converted to pine plantations, so really this forest type around me has been lost for the most part. It’s a really unique forest type, something you almost never see. Most of the uplands on the coastal plain were influenced heavily by fire, so longleaf forest tends to dominate. Because the swamp surrounds this area, this upland, which is in the middle of the swamp, does not have longleaf, does not have any of your fire tolerant pines, and instead it has a really rich hardwood community that is probably a lot rarer than even longleaf pine is today. This is one of the few examples that I know of that looks like this. This type of forest is actually what you would call climax forest, meaning this is a result of many centuries of succession from one forest type to another type to another type.</p> |
|  | <p><b>&gt;&gt;Narrator: Scattered throughout the uplands of Chickasawhatchee are isolated patches of wetland. Because these areas are isolated from the riverine system, fewer fish inhabit the waters, providing a perfect breeding ground for amphibians</b></p>   |
|  | <p>&gt;&gt;Floyd: At night tree frogs can be found in and around wet areas such as ponds, but during the day, occasionally you can stumble across a frog. Frogs that you encounter during the day are often holed up in a small moist spot, more or less in a ball shape to conserve the water so they don’t lose the water during the hottest parts of the day.</p>   |
|  | <p>The barking tree frog is perhaps one of our largest tree frogs in Eastern North America, one of the more colorful treefrogs. He has glandular skin, which means</p>   |

|  |   |
|--|---|
|  | that it's fairly rough but shiny and slimy like most frogs you would expect to be, and very colorful. He can vary his color from completely grey to a brown to a vivid green, and the same individual, so it makes for a very attractive frog.  |
|  | Amphibians are important in this ecosystem and across the landscape because they can act as environmental indicators. They are sensitive to pollutants and disturbance to habitat and they can be an indicator as to the quality of habitat.  |
|  | <b>&gt;&gt;Narrator: The Chickasawhatchee isn't just important for wildlife, it performs an essential function in purifying the water we use everyday. The swamp is, in fact, an area of recharge and discharge from the Floridan aquifer, a major underground source for the water we use. In times of drought, the aquifer replenishes itself with waters from the swamp, decreasing the wetland area. When the aquifer reaches its capacity, it releases excess water into the swamp. Blue water holes like this one can be found throughout the swamp, and are directly connected with the aquifer, hundreds of feet below the earth's surface. The swamp also cleans the water as it travels to the aquifer.</b> |
|  | >>Kile: There's a purification process that happens and it sits here, sits in one place for a long time, slowly percolates down through the soil, which actually cleans the water so when it gets down there to the aquifer it's clean enough for you and I to drink even though up here on the surface we could not.   |
|  | <b>&gt;&gt;Narrator: Because the land around Chickasawhatchee has been so developed by human use, the department of natural resources is undergoing a huge project to restore the land to its original state</b>  |
|  | >>Kile: We do want to go into a major restoration effort, something bigger than has ever been tried by the state in the past. What we want to do is find out what species would have grown here had man not come in and intervened and tried to maximize profits.   |
|  | >>Cammack:<br>In doing restoration, there are a couple of ways that you can do things. You can just kindly let nature take its course, and eventually she will heal herself, but in some areas, like in the bottomlands, that's usually the best course to let nature take care of itself. Let the cypress trees regenerate, let the floods in the dry down periods and the hydrology kind of regulate what grows back. Now, in the uplands you could potentially let things take their own course, but it's going to be a lot slower. Because man has impacted these areas so intensively, in order to take them back to the native things, you've got to be pretty intensive in your management.                    |
|  | One of the tools that we use to figure out our management practices is historical area photography. We've got photography that goes back into the 1940's and it's just amazing to see how this place has changed over the last 60 years.  |
|  | And then the really exciting thing that they have developed, pulling together all of these resources, is our 50 year goal, our 50 year map. What do we want this place to look like in 50 years and even beyond because restoration of these kind of habitats is a really long time scale. You've got to look at 100 years and beyond.  |
|  | We spend a lot of time just tromping around in the woods seeing what we find, and one of the things that we make note of are areas that are really infested with exotic species. Some of the species we're dealing with here are Chinaberry,  |

|  |   |
|--|---|
|  | <p>Japanese honeysuckle, Chinese privet. Some of these species are easier to manage and get rid of than others, but that's one thing that we have noted because the exotic species displace the native species and can really mess with the types of plants and animals that would grow here.</p>   |
|  | <p><b>&gt;&gt;Narrator: Restoring Chickasawhatchee to its natural state will be a long, painstaking project, but preserving this important wetland environment will give our future generations a window into our ecological heritage, which would otherwise be lost forever.</b></p>   |
|  | <p>&gt;&gt;Klaus:<br/>       I originally grew up in western Iowa, so I really don't know much about swamps and had never really seen one, and certainly had never gotten to know one really well until I started working on Chickasawhatchee, and it's a place that grows on you. It's obviously a very buggy place, and kind of a muddy wet place, but it has a sense of wilderness that I haven't found anywhere else in Georgia really. There's really a quiet timelessness to places like Chickasawhatchee that really give you a much better appreciation for your place in the world. I think that when you come to a place like Chickasawhatchee you can see that wilderness and the wild is still very much alive.</p>   |
|  | <p><b>&gt;&gt;Female Narrator: Water quality is an important part of a healthy ecosystem. Here are some things that you can do to help keep the streams and rivers near you clean:</b></p> <p><b>Correctly dispose of hazardous household chemicals. Better than that, buy non-toxic household products when possible.</b></p> <p><b>Recycle and dispose of trash properly and never flush non-biodegradable materials down the toilet.</b></p> <p><b>Conserve water and avoid over-watering your lawn and garden.</b></p> <p><b>Use natural fertilizers on your lawn and decrease hard surfaces around your home. This will improve drainage.</b></p> <p><b>Recycle used motor oil. Avoid putting it down gutters or storm drains.</b></p> <p><b>Be an activist. Contact your local public officials or attend public meetings to know more about the laws that protect your water.</b></p> <p><b>Male Narrator: Swamps are not usually associated with cities, but within the city limits of Augusta, there is a 1,500-acre wetland called Phinizy Swamp.</b></p> |
|  | <p>&gt;&gt;Barnhill:<br/>       Phinizy is actually owned by the Department Of Transportation. They purchased the property in the 80's and transferred management to our agency in 1988. They purchased the property as mitigation to build I-520. The interstate was gonna go through the wetland area so they had to provide wetland mitigation, so this 1500-acre swamp is a mitigation project.</p>   |
|  | <p><b>&gt;&gt;Narrator: Dr. Gene Eidson is the founder, president and director of the Southeastern Natural Science Academy, which runs Phinizy Swamp Nature Park. The Academy recently received an environmental education award from International Paper.</b></p>  |

|  |   |
|--|---|
|  |   |
|  | >>Eidson: The International Paper Environmental Education Award is based on your accomplishments over a period of time in the area of environmental education. And we were founded in 1996, and since that time, we have gone from about 150 students in our first year to about 10,000 students a year.  |
|  | >>Brewton: Well at the swamp our main goal is to provide environmental education through awareness and stewardship of the land. And what we do is we focus on K through 12 education, and we bring about 8,000 school children a year into the park. What we do is hands-on environmental education with children. We teach them about the wildlife that lives out here, we teach them about the ecosystems, and how everything has to live together in perfect harmony.  |
|  | We find a lot of times when people come to the swamp, they have this predetermined idea of what a swamp is going to be like. It does have a mystique to it. There's a lot of aura about the swamp that it's dark and spooky and scary. And in some cases it is way back out, it can be that. But people come to the swamp and they're just absolutely amazed. They think they're coming to a mosquito-infested snake den. And they get here and they say 'Wow' you know there are tons of wildflowers growing, there are lots of different birds, there's uh. It's not a mean, nasty place anymore, you know, they come here and actually realize the swamp can be a recreational site. A lot of people overlook that as one of the options of where are we gonna go, just like to a swamp? No, but they come out here and they say 'Wow. This is some really neat stuff out here.' |
|  | >>Eidson: Many of these children have never seen a wild land. So they've never had the opportunity to go out and experience what it's like to be in a wild land. And I think that's really critical if we are going to have our future generations appreciate our natural resources so that we can preserve and protect those resources. I think that that's one of our greatest missions.  |
|  | <b>&gt;&gt;Narrator: As an urban swamp, Phinizy is called upon for multiple uses. Though this area might look serene, these 400 acres are very busy... These constructed wetlands are providing tertiary treatment for the city's wastewater.</b>   |
|  | >>Eidson:<br>By "tertiary treatment" we mean this is a polishing treatment. The wastewater has gone through a settling process through biological process and then the wastewater flows through constructive wetlands. And in the flow through constructive wetlands, the reticulate dissolved materials are removed, and primarily by the bacteria that grows attached to the plants. The constructive wetland cells here on this site have two configurations. The first consists of a marsh followed by a pond, followed by a marsh. And we have to have this type of configuration in order to have all the biological transformations that are necessary for the waste removal.  |
|  | The constructed wetlands offer a very natural and passive, environmentally friendly treatment to the wastewater compared to a mechanical treatment which is very power intensive, which also uses a lot of chemicals, etc. It's amazing in a constructed wetland you simply let the water flow through and nature does the work on its own  |
|  | What we try to do when we develop a constructive wetland is use native vegetation, and in this particular site, most of the vegetation consists of a variety  |

|  |   |
|--|---|
|  | of cattails, bull rushes and cut grasses; all native to this area. And they all do a very good job at removing particularly ammonia and other pollutants that come into the system.   |
|  | <b>&gt;&gt;Narrator: Augusta is not the only city where constructed wetlands are performing this type of work, but in one respect, this one is unique.</b>  |
|  | >>Eidson: One of the interesting things about this wetland project is that it treats both a combination of industrial and municipal wastewater.   |
|  | The wetlands themselves have been utilized for many, many years for removal of pollutants. Typically you don't have an accumulation of materials that you should be concerned about. Occasionally you have to follow heavy metals to see if heavy metals are accumulated in the wetlands. But we have a very low metal content in the waste stream, so I really don't anticipate any long term residual impacts to the wetlands   |
|  | <b>&gt;&gt;Narrator: Once the clean water leaves the constructed wetland cells, it flows into Butler Creek, a tributary of the Savannah River, where it is used by fishermen and their catch alike. In fact, there is a wealth of sporting opportunity in and around Phinizy Swamp. The area adjacent to the constructed wetlands is a wildlife management area, providing plenty of recreation opportunities like hunting, fishing, and birding.</b>   |
|  | >>Barnhill: The biggest challenge with Phinizy Swamp is access. Because it is a swamp, it's very difficult to access. There's one road leading into the park, and it's known as Gravel Pit Road and it goes to some nice ponds that were actually used to dig dirt and gravel many, many years ago. The access is walk-in only. There is no vehicular access on Phinizy Swamp WMA. In addition to the ponds, and about 50 acres of upland associated with the ponds, the remainder of the property is swamps. |
|  | <b>&gt;&gt;Narrator: Waterfowl and wading birds can also be seen nearby at the adjacent Mary Brothers brickyard ponds. The ponds, which were created by the process of digging clay for bricks, are popular fishing spots as well. But if you are visiting the Phinizy Swamp area to see birds, there are fifty-seven different species commonly seen and heard here.</b>   |
|  | <b>At Phinizy Swamp, you may also be able to see some Georgia's reptilian residents.</b>  |
|  | <b>All of these creatures help to make swamps like Phinizy truly fascinating places. Swamps not only provide habitat for wildlife, and places for us to recreate, they help keep our water clean and available, and they provide places to learn more about the wonder of the outdoors.</b>   |
|  |   |